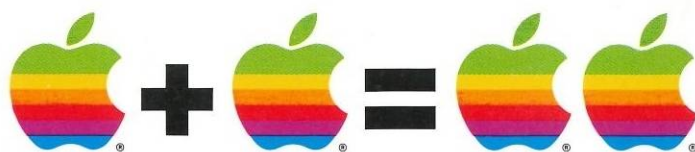


# The Australian Apple Educational Software Directory 1987.



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88 9259

**THE AUSTRALIAN  
APPLE EDUCATIONAL SOFTWARE DIRECTORY**

**1986/7**

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APPL. EDUCATION SOFTWARE DIRECTORY  
1986/7

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### FOREWORD

This Directory is the second listing of educational software available in Australia for the Apple II family of microcomputers. The 1986/7 Directory also includes a listing of educational software for the Apple Macintosh which has fast become increasingly popular with schools over the last year.

The large number of programs available for the Apple is, of course, very desirable since it presents a wide choice for the educator. The Directory provides information about these programs in a clear and concise form.

The Directory results from numerous enquiries from teachers and parents throughout Australia, and the broad range of software listed will provide answers to many future enquiries. I believe this Directory will encourage Apple users to seek new applications for their computers in infant, primary and secondary classrooms. To complement the use of software in some subject areas, descriptions of printed support material have been included.

If I have omitted one of your favourite packages, please do not hesitate to let me know. Please send me details of the program name, Australian supplier, a few words about the program, and the price. The descriptions of programs from other software developers in Australia will appear in subsequent editions.

Pricing of programs and their descriptions are believed to be accurate at the time of compilation, but these may be changed without notice by the author, publisher or distributor. The prices quoted are those for educational institutions and where the software is purchased for home use the price may be slightly higher.

My thanks go to Gary Ferguson-Smith who took on the major task of updating the Directory for this year. I would also like to acknowledge the contribution by Conrad Silvester, our Educational Support Specialist, for his time and efforts in producing this directory.

May 1987 be the year to make your Apple II or Macintosh an increasingly valuable educational resource.

Diana Ryall  
Education Manager (K-12)  
Apple Computer Australia Pty. Ltd.

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SECTION A : SOFTWARE SUMMARIES FOR THE APPLE II FAMILY

Typical Entry:

```

*****
*
*
*           {Name of the Program}           {Education Price}
*
*           {Name of the Software Distributor}
*
*           { PROGRAM DESCRIPTION           }
*
*****

```

Notes:

1. An asterisk before the name of the program means that it was developed in Australia.
2. The address of the distributor of the software is listed in Section C.
3. Some educational software is available through Apple Dealers, software outlets and educational booksellers.
4. Where two distributors handle exactly the same software package, the cheaper supplier is listed.
5. Software listed is believed to be readily available.

## 1. ADMINISTRATION

**\*THE BOOKKEEPER'S FRIEND \$85.00****Campbell Software**

A cash book which is easy to use and fully menu driven. It supports profit and loss balance sheets, allows the entry of receipts and expenses to produce trading profit and loss balance sheets and provides a variable chart of accounts. A useful program for administration and for economics and commerce students.

**CACTUS GRADE BOOK \$65.00****Science Education Resources**

Maintains student data, unlimited number of classes, 60 students in each class, 35 records per student. Easy to use.

**CLASSMATE \$79.95****Edusoft**

This package offers complete grading and attendance facilities. Stores grades, attendance and teachers' comments. Graphs grade distributions, computes weighted averages and class rankings. Prints all records, including reports home to parents.

**\*COMPUTER ASSISTED TESTING****Logistics \$60.00**

This program analyses multiple choice tests to provide raw scores, percentage scores, difficulty and discrimination indices. Performance histograms are also provided.

**\*COMPUTER DIARY \$30.00****Chopping, Mr. E.G.**

Using only four keys you can gain access to any date in the current year, enter an item and have it stored on disk. At the beginning of each month you can get a printout to use as a memopad. A whole month can be scanned on the screen, the number of days between any two dates calculated or have a cyclic event automatically stored.

**\*E.A.S.I.E.R. \$500.00****Symbiotic Systems**

Designed for Australian schools, this package consists of five diskettes plus user manual. It has been designed for use by teachers and administrators in both primary and secondary schools. The five diskettes are titled: **Results Master, Administration Master, Statistics disk, Reporting disk and Mailing** and other lists disk. Student information is stored on separate student data disks. Each disk holds records for up to 100 students and it is possible to cater for up to 300 students at any year by using extra disks. Security of information is accomplished using "passwords".

The E.A.S.I.E.R. system stores, displays and prints complete student records, allowing access by name or record number for updating of information as students move up through the school. It produces house, form, tutor group and subject lists. It stores, displays and/or prints academic results by subject, and in ranked order for each subject. Calculates means, standard deviations and simple correlation coefficients for each subject and can produce frequency histograms. Print term reports, address labels and compiled information necessary for the Education Department's statistical collections.

**EA GRADEBOOK \$59.95****Micro Nationwide**

A quick and easy-to-use program, GRADEBOOK keeps percentage grades for as many as 20 classes of 36 students with 36 test or assignment scores for each student. It may be expanded to accommodate more students or more assignments. Students may be listed in any order, and names can be re-alphabetized quickly at any time. Assignments can be weighted and class rosters can be transferred to new files automatically. Class ranking and standard deviation may be calculated. Grades can be averaged on a quarterly, semester, or yearly basis. Individual or class score averages are always available for review. Complete printed documentation is included, however, directions in the program prompt the user. All information is available on screen or can be printed.

**FACULTY/STAFF ATTENDANCE MANAGER****Edusoft \$369.00**

This unusual program could be useful to school administrators. It handles teacher and staff attendances, taking into account various kinds of absences, such as professional days, personal days, sick leave, jury duty, etc. It accumulates and subtracts absences from the teachers' cumulative number of days available, including half days.

**GRADEBOOK PLUS (PRO VERSION)****McGraw Hill \$59.95**

This program works with letter grades, numbers or terms such as "Good" / "Poor" - automatically providing numerical equivalents to letter scores. Gradebook also has a mini wordprocessor which can be used to help prepare personalised student reports. Calculates mean and median to weighted averages and final grades.

**GRADECALC \$49.95****Edusoft**

This program allows a teacher to manage student's grades as well as generating reports. Includes an attendance facility as well.

**THE GRAPHIC GRADEBOOK \$89.95****Edusoft**

The Graphic Gradebook allows the teacher to manage students grades, and averages. One nice feature is the ability to graph all the results.

**\*MARK AID \$10.00****VICTORIAN DEPARTMENT OF EDUCATION**

A program designed for teachers to facilitate their assessment of students which allows the teacher to initially establish a class list and then add and delete students to this list as the need arises. Given a set of examination marks, the mean and standard deviation are calculated and these are used to create a set of standard scores for each student. The teacher can select another mean and standard deviation for reporting and the students' marks are adjusted according to their rank order. Letter grades may be added to indicate a numerical mark. The program is formatted for a 40 column screen and it has an excellent built-in editor. Results can be printed.

**\*MARKBOOK** 2 disks + \$5.00  
**Gainford, Mr M.**

An electronic markbook which will store up to 200 kids or one form at a time. In the 48K version, 28 columns of marks can be displayed and in the 64K version 54 columns of marks. Functions include entry and editing of marks, sorting alphabetical, rank order, standardisation of marks and the best 10 unit aggregate. The markbook may also be used to store student subject selections as a precursor to timetabling.

**\*MARKBOOK V5.1**  
\$3 + disk for members, \$5 + disk for non-members  
**NSWCEG - Disk #26**

A program developed by John Messing to store the sort of records kept by subject departments about the academic progress of its students. The data is stored in class groups although the system does allow operations involving several classes. Each student's record contains space for surname, given name, IQ, 12 - 3 digit scores, 24 - 2 digit scores and 2 to 4 assessment results. All student records in a class are kept in alphabetical order. Using the supplementary program the following may be obtained: rank order lists, report with comments, standardise across classes and transfer students. A full description of this program occurs in Information Transfer Vol.3 No.2, July 1983 and instructions are included on the diskette.

**\*MOTORISED MARKBOOK** \$10.00  
**Resource Services Distribution**

A computer package designed for use by schools in the new H.S.C. Assessment program. The program provides a workable and efficient means of organising relevant assessment information, storing this information for later recall and use in determining the final assessment mark and providing meaningful feedback in reporting students performance. The package has been designed along the traditional layout of teacher's markbook.

**MEDIA & EQUIPMENT MANAGEMENT**  
**Micro Nationwide** \$269.00

This package consists of two programs, Inventory and Scheduling. Each program consists of an independent management program and file storage one common disks. The package allows items to be entered into the inventory and store all relevant information regarding stock number, price, vendor, dates, maintenance cost etc.

**\*OPTION ARRANGE** \$65.00  
**N.D.E.C.**

This program helps you to arrange classes into subject lines, and then place students into the classes of their choice. The program will produce class lists for each subject and a list of the subjects. There are help files to assist and the program can read and write standard ASCII files.

**PARENT REPORTING** \$29.95  
**Dataflow**

Allows the teacher to send "personalised" messages home to each student in the class. Each message includes 8 different teacher-defined subjects: English, Maths, work habits, attitude, etc. Each subject may be given on of 15 different "grades". There is also an option for a personal message. A printer is necessary.

**\*PARENT/TEACHER MEETINGS**  
**Resources Services Distribution** \$20.00

The use of this program is to automatically arrange appointments for parents with a selection of the student's teachers. The program provides a pre-printed invitation containing a list of all the teachers in the school, the parent marks the desired spots and sends it back to school. Once all the desired appointments have been entered the program will produce a roster of 5 to 10 minutes interval for both the parent and teacher.

**POCKET MONEY** \$5.00 + disk  
**Gainford, Mr. M.**

This program will handle the pocket money accounts of a school boarding, or school club with up to 80 members. Printed report include statements and summaries of each account and member.

**REPORT CARD** \$89.95  
**Edusoft**

An easy to use grading system that makes the process of compiling students reports more efficient. The program allows teachers to weight different activities. Results can be printed.

**\*THE RESULTS ANALYST** \$30.00  
**Passionfruit**

This program allows the teacher to perform a series of powerful evaluations on multiple choice testing. Whilst it also acts as a corrector of tests, its main benefit is that it rigorously analyses the strengths and weaknesses of individual questions. In this way, a teacher can build up a set of good questions and be able to eliminate weak ones or modify them as needed. Some understanding of basic statistics is needed as is a printer.

**SCHOOL ATTENDANCE MANAGER**  
up to 800 students \$349.00  
over 800 & up to 2400 students \$495.00  
**Edusoft**

This program caters for two types of school, those with 800 or less students and those with more than 800. The package allows for an efficient means of managing half day and full day absences of students and produces daily, monthly, yearly and year-to-year records. Can be used to store students' addresses thus allowing for the printing of address labels.

**SCHOOL DISCIPLINE MANAGER**  
up to 800 students \$239.00  
over 800 & up to 2400 students \$299.00  
**Edusoft**

This program caters for two types of school, those with 800 or less students and those with more than 800. The package allows for an efficient means of recording, monitoring and reporting student infractions. Stores the date of the infraction, type, location, teacher involved, disposition and administrator involved.

**\*SCHOOL RECORDS & REPORTS**  
**Lothlorien Software** \$150.00

School Records and Reports is a program written specifically to keep track of each student's progress throughout the year in up to nine different subjects. Marks for six tests can be recorded in each of these nine subjects. As each new mark is entered, the student's

weighted average mark is calculated and displayed at the bottom of the screen. Using this program the teacher or administrator can obtain a print out of each class in order of merit in each subject, as well as on overall performance. This is particularly useful for parent/teacher meetings, staff meetings etc. Lists of students in each form can be sorted alphabetically and printed.

Reports can be printed on letterheads to be sent home to parents, and teachers can write their own personal comments. Each diskette can record the reports for 215 students, thus making it easy to keep each form on its own diskette.

**\*SCHOOL ADMINISTRATION SYSTEM**  
**Resources Services Distribution** \$40.00

This package consisting of four different programs; **Class Lists System, Welfare System, Teacher's Markbook and Report System.** The centralized class lists keeps track of the classes that each student is in and provides a variety of lists and summaries of the numbers of students in different classes.

The welfare system complements the class lists system in that it keeps records about parents, address, date of birth, religion and many other details. The functions available in this system allow you to search for various characteristics about students, produce lists of attributes (religious rolls for example) and even produce standard letters which automatically uses the information from the file. It is even possible to produce a summary (or complete list) of the ages of students at the first of any month you care to nominate.

The system comes with a configure program which allows you to design aspects of the system to suit your schools individual requirements. The cost includes a copy of the Teacher's Markbook program which keeps track of student tests, assignments and assessments in class groups. A fourth program "Computerised Reports System" is also available and this collates the information from the Class Lists System and the Mark Book System.

**THE SCORE BOOK** \$59.95  
**Edusoft**

This package is used by any teacher to record, average and report students scores. The program will handle up to 8 different classes of 40 students and up to 45 different periods of assessment are catered for. Will print out results as well.

**\*SPORTS MEETING** \$45.00  
**Data Publishing**

A program developed to record the results of each of the events of a sports meeting. It calculates the progress score after each event, and results and progress scores may be edited. Various reports are available and if power is lost only the last event is lost. The program works on the II,IIe or IIc.

**\*STRATGRAPH FILER** \$45.00  
**Zylab**

This package has been successful in the Victorian market over the past two years. It allows users to file alpha and numeric data, carry out statistical analyses and review these results on the high-resolution screen. The analyses include standardisation of scores and reliability calculations. The high-resolution graphics display may be dumped to a suitable printer.

**\*TABLEFLEX** \$20.00  
**N.D.E.C.**

This program is a utility for the TimeTable Management program described below. The program adds a user-friendly and powerful entry routine that allows you to enter teacher / class / room details more quickly and to do block deletions and editing.

**\*TABLETIME** \$85.00  
**Dataflow**

Tabletime is an computerised timetabling program designed for use in High Schools and Colleges. The program uses a matrix timetabling method catering for up to 60 periods/week or cycle, up to 180 subject lines, an average of 10 teachers/line and up to 180 teachers and specialist rooms. Tabletime produces timetables with minimal or no clashes in the form of a summary timetable.

**TESTCALC SYSTEM - Academic Assistant**  
**S.R.A.** \$770.00

This program will score multiple choice tests up to 5 response options, prepare test statistics including item analyses, frequency distributions and correlations. The system will serve 200 students - up to 20 scores per student and 100 items per test.

**\*TIMETABLE BLOCKER** \$90.00  
**Edusoft**

This program is designed to assist schools in processing subject selection data of students who intend studying year 11 or 12 in the following year. The package can establish all the ways students can take their desired subjects from a particular set of blocks, can be used to help balance class sizes and print class lists. Caters for a maximum of 280 students, 6 lines and 20 subjects in each line. Requires CPM and a printer.

**\*TIMETABLE MANAGER** \$90.00  
**Edusoft**

This package is designed to assist schools in the development and maintenance of their timetable. It does not build the timetable, but allows the timetable to be entered. Caters for up to 10 days in a cycle, 8 periods per day, 12 different levels, 30 periods at any level and 150 teachers and rooms. Requires CPM and a printer.

**\*TIMETABLE MANAGEMENT** \$20.00  
**Resource Services Distribution**

This package is for the recording, editing and printing details of a school timetable. However, it does not create the timetable. There are a number of print formats available but the data is only entered once. Supports Epson, Imagewriter, Facit and Apple DMP printers.

## 2. ADVENTURES and PUZZLES

### ADVENTURE ALPHA/ISLAND BETA

**Britannica \$55.95**  
Unique adventure games of problem solving....the solving of classic mathematical dilemmas that require patience, creativity and perseverance.

### ADVENTURE CONSTRUCTION SET

**Edusoft \$59.95**  
Creative writing authoring system. Features prebuilt musical effects, magical spells, creatures and props, even an editor to draw new graphics.

### \*ADVENTURE DISK

**\$35.00**

**Chopping Mr. E.G.**  
This disk together with the full documentation allows you to take any story and turn it into an adventure game.

### ADVENTURE MASTER

**\$39.95**

**Edusoft**  
Everything needed to design text adventure games. Describe places, plan happenings, create secret exits, name magic words, hide objects and create entire worlds to travel in.

### ARROW DYNAMICS

**\$69.95**

**Edusoft**  
An irresistible game that combines the challenge of chess with the structure of programming. Reinforces programming basics and promotes logical thinking. (Apple II+, IIe, IIc) (\$165 for 10 Pack)

### BELOW THE ROOT

**\$59.95**

**Edusoft**  
Based on the Green-Sky Trilogy, this program combines the story building aspects of a text adventure. An attractive map/poster is included.

### CHIVALRY

**\$79.95**

**Edusoft**  
1-4 players may take part in this fantasy board /computer game. 20 arcade style games hinder your quest to rescue the King. Includes disk, board, playing pieces, poster and a user guide.

### CODE QUEST

**\$69.95**

**Edusoft**  
What is the mystery object? Six clues lie embedded in a series of codes composed of letters, numbers or pictures. This teacher-created program sharpens thinking skills such as discrimination, classification and rule formation as students decode the hidden clues and form hypotheses on the identity of the mystery object. A special option lets students or teachers create their own mystery objects and clues. (Apple II+, IIe, IIc) (\$165 for 10 Pack)

### COLOR KEYS

**\$69.95**

**Edusoft**  
A thought provoking game that improves student's command of analysis, synthesis and problem solving strategies. Forty-one levels of difficulty provide a

challenge for a wide range of students. (Apple II+, IIe, IIc) (\$165 for 10 Pack)

### COMP-U-SOLVE

**\$59.00 each**

#### Micro Nationwide

Two diskettes of programs which are simulations of classical puzzles. Each of the games may be played at two levels and they support logical thought and problem solving skills. Disk 1 contains Electro-Connection, Number Hop, Tricky Trip, William's Warehouse Worries and Demon's Octagon. Disk 2 contains harder programs including Align a Laser, Weighty Decision, Dishwasher's Dilemma, Professor Engel's Waterworks and Moon Movers.

### CREATIVITY UNLIMITED

**\$69.95**

#### Edusoft

Everyone wants to be creative. But it's often difficult for teachers to provide students with a creative environment in which they can explore and create objects and build their imaginations.

Creativity Unlimited uses the computer graphics to allows students to build, rotate and expand objects that they create. Students are encouraged to be flexible and original. (Apple IIe, IIc) (\$165 for 10 Pack)

### DRAGON'S KEEP

**\$49.95**

#### Imagineering/Edusoft

An adventure game written at an easy reading level. Basic skill focus includes reading comprehension, map reading, identifying details, making inferences and drawing conclusions. The object of the adventure is to free 16 animals held captive by a magical dragon. The package includes a disk, poster-sized map, 16 animal stickers, a compass decal and a Parent Guide.

### THE ENCHANTED FOREST

**\$69.95**

#### Edusoft

A mathematics fairy tale that will entice students of all ages as it helps them think logically and understand concepts of conjunction (and), disjunction (or), and negation (not).

Students enter the Enchanted Forest to find strange looking ponds that contain geometric shapes. Students must first identify the attributes of these shapes - type of figure, size, colour - for this will help them later on in their adventure. After roaming through the forest, a storm suddenly occurs, and students find themselves standing in front of the wicked witch's castle. They soon discover that the evil witch has taken all the animals in the forest and turned them into the strange-looking shapes that they had seen in the ponds! To release the animals, students must learn (at the witch's school) to describe all the shapes in the ponds as sets involving conjunctions, disjunctions, and negations. Randomly created ponds makes the game playable again and again.

### \*FANTASY ISLE

**\$70.00**

#### Prologic

Students follow a fantasy story, making decisions as to what should happen next. The plot introduces students to a magical island and its characters. The student then enters the story ending and prints the result.

**FLOWERS OF CRYSTAL \$65.00****Softime**

A 2 part adventure featuring full graphics and sound which encourages children to explore and investigate. Includes introductory story book and teachers manual.

**FREDDIE'S PUZZLES ADVENTURES****Dataflow \$49.95**

This package includes four word puzzles and six number puzzles suitable for children from 7 onwards. Students can also produce their own puzzles.

**FUN HOUSE MAZE \$79.95****Edsoft**

A journey through a surprise - packed three dimensional maze gives students practice in developing and testing problem-solving strategies. The Fun Maze provides practice in pattern recognition and identifying multiple solutions and builds skills in problem solving. (Apple II+, IIe,IIc) (\$165 for 10 Pack)

**GALAXY SEARCH / PREDICT OUTCOMES****Edusoft \$79.95**

Plunging deep into space, players search for remote alien groups. Each group has invented new robot parts which must be collected in order to build their robots and win the game.

**GEARS \$79.95****Edsoft**

This program allows students to experiment with gears while learning the problem solving skills of prediction and analysis. Students start by selecting the number of gears they wish to line up, and the number of teeth for each gear. Then, given the number of rotations the first gear will turn, they must predict the direction and the number of times the last gear will rotate.

Student can first play with the gears and gather data in an experimental mode; they can then go into the "Solve a Gear Problem" mode and start make predictions. Animated graphics makes the program come alive on the screen.

**GELFLING ADVENTURE \$59.95****Imagineering**

A junior adventure game based on The Dark Crystal designed to meet basic skills for reading comprehension. Vocabulary is at the third grade level and the skills emphasised are making inferences, predicting outcomes, drawing conclusions, following map directions, identifying and remembering details and extending vocabulary.

**GERTRUDE'S PUZZLES \$54.95****Ashtron Software**

Contains six puzzles to develop reasoning skills suitable for 6 to 10 year olds. The puzzles use size, shape and colour to form patterns. Sometimes the rules are given and sometimes hidden.

**GERTRUDE'S SECRETS \$54.95****Ashtron Software**

This program includes a series of games to help children from 4 to 7 to learn logical thinking. Children discover the importance of patterns and planning ahead. Different shapes and colours are used in the puzzles.

**HITCHHIKERS GUIDE TO THE GALAXY****Edusoft \$69.95**

Is there a requirement for life after seeing a Test match? Why green? Why not some other colour? Is boredom merely a state of mind? Fish and chips or tea? If you have read it, try it. if you haven't read it, read it then try it.

**THE HOBBIT \$69.95****Edusoft**

Become part of the story playing the part of Bilbo, and see the world through the hobbit's eyes as they roam freely through Tolkien's enchanted land.

**HOW ABOUT A NICE GAME OF CHESS****Imagineering \$29.95**

Chess, an old favourite, with optional use of the mouse.

**IN SEARCH OF THE MOST AMAZING THING****Imagineering \$59.95**

Your uncle, Smoke Bailey will help you on your search together with a B-liner, a cross between a hot-air balloon and a dune buggy. First you need to learn to fly the B-liner and navigate through storms and fog. The program encourages problem-solving through trial and error, sharpens your ability to estimate, predict, manipulate numerical quantities and enhances awareness of distances, directions and time.

**THE INCREDIBLE LABORATORY \$69.95****Edsoft**

Welcome to the Incredible Laboratory - a place to sharpen problem solving skills. Imagine a beaker filled with a bubbling solution and a list of "crazy chemicals" to add to the mixture. The students choose and mix the chemicals, the Bunsen burner heats up, and from the vapor a monster emerges.

Each chemical produces specific features of the monster.... from lizard feet to scaly body, furry arms, and mummy legs. All chemicals can be combined to form even more variations. The students job as a Novice Apprentice or Scientist is to discover,through trial and error each chemicals effect. In higher difficult levels, chemicals effects change every time the program is run.

**SIR ISAAC NEWTON'S GAMES \$79.95****Edsoft**

The formulas that govern motion are recreated in simple games. Students begin by trying to move an object around a track. How to move it is up to them. The track can be placed in a variety of environments. Package includes a backup and teacher's guide.

**MEMORY \$299.95****Edsoft**

This package consists of 10 different diskettes covering the areas of remembering sequences, groups, shapes, parts of a whole and instructions. It also includes matching games and a self-test.

**MEMORY CASTLE \$69.95****Edsoft**

An exciting colourful adventure game that helps students remember instructions and follow directions. Inside the Memory Castle, students are given

instructions..."go to the sheildroom, then to the cemetery to the grave of Sir Gray, then to the kitchen...") To help them play the game successfully, your students are introduced to a special strategy designed to improve their memories. (Apple II+, IIe, IIc) (\$165 for 10 Pack)

**MIND OVER MATTER \$49.95****Edusoft**

Challenging puzzles that use symbols and graphics to sharpen creative and deductive thinking skills. Players can create their own puzzles.

**MIND PUZZLES \$75.00****HBS International**

Students learn to solve problems logically and use the computer as an exploratory tool. They learn that there are many different ways to arrive at a solution.

**MOPTOWN PARADE \$54.95****Ashtron Software**

Moptown parade is a series of activities based on characters with four possible attributes suitable for 6 to 10 year olds. The attributes are short/tall, red/blue, fat/thin and bibbet/gribbet. Bibbets have big noses and gribbets have tails. Games are based on finding common or different attributes, changing attributes and develop reasoning skills.

**MOPTOWN HOTEL \$54.95****Ashtron Software**

Moptown Hotel contains seven more activities based on the four attributes of size, shape, colour and nose or tail suitable for 8 to 13 year olds. Some of the more advanced activities work with common attributes across rows or columns of a grid. A colour screen is essential for some of these activities.

**MURDER BY THE DOZEN \$34.95****Edusoft**

Challenging adventure game of logic and deduction for mystery buffs of all ages.

**MURDER ON THE ZINDERNEUF \$49.95****Edusoft**

An easy to play detective adventure. Use deductive logic to find the killer before landing in New York. Over 2,000 different mysteries to solve.

**ODD ONE OUT \$69.95****Edsoft**

Develops your students' classification skills through five lively programs; Pictures, Words, Letters, Numbers and Maths Problems. Students are shown four items and asked to identify the "odd one out". You also have the option of customizing the items, thus typing the activities to classroom materials. Varying levels of difficulty provide students with increasingly challenging categorisation problems. Program features advanced colour graphics, animation and sound. (Apple II+, IIe,IIc) (\$165 for 10 Pack)

**THE POND \$69.95****Edsoft**

These three programs are suitable for 7 year olds and onwards. A small green frog is lost in lily pads and the student is asked to recognise patterns and think logically. The three programs increase in complexity.

**PUZZLE TANKS \$69.95****Edsoft**

Students are given two tanks - each of a set capacity that is randomly chosen by the computer - and a storage tank. The challenge: by filling tanks, emptying tanks, and transferring from tank to tank such materials as "Jolly Juice" and "Yerpie Paint", students must finally arrive at a target amount (also randomly chosen by the computer) in the storage tank.

Three difficulty levels plus a championship level give students an ever increasing challenge. Students are scored according to the number of tries it takes them to complete the problem and most compete with each other to find the most efficient way to solve a problem. (Apple II+, IIe,IIc) (\$165 for 10 Pack)

**REALM OF IMPOSSIBILITY \$59.95****Edusoft**

A 3-D puzzle game with over 120 different graphical screens, 4 levels of difficulty for 1 or 2 players.

**RENDEZVOUS WITH RAMA \$69.95****Edusoft**

The year is 2130, a huge new asteroid has just been discovered and named RAMA, what secret does it hold, where has it been, where is it going. It is soon discovered that RAMA is a mammoth spaceship.

**THE RIGHT TURN \$69.95****Edsoft**

The Right Turn allows students to predict, experiment and learn about mathematical concepts of rotation and transformation.

Students can create a pattern, an then specify the type of transformation - 90° flip, right diagonal flip, etc. First the computer shows what the transformation does to their pattern. Then it creates its own pattern below, and the students must specify how to flip it to achieve their original transformation. (Apple II+, IIe, IIc) (\$165 for 10 Pack)

**ROBOT ODYSSEY \$69.95****Edsoft**

Sequel to Rocky's Boots. You enter a world where you are the game designer. You design chips and build robots. The object of the program is to construct a robot play the adventure game, which is underground, in order to find your way back to the surface and to civilisation

**ROCKY'S BOOTS \$69.95****Ashtron Software**

Rocky's Boots helps children from 9 years onwards build a groundwork in logical skills. The player who is represented as an energy source builds logical machines with bells, clackers, switches and gates. A program that would also be suitable for reluctant readers who are fascinated with circuitry.

**SAFARI SEARCH \$69.95****Edsoft**

Safari Search takes students on a safari trip through a gridlike environment where students must decipher clues that reveal the hiding place of mystery animal.

At one level, students receive simple clues like "you're getting hotter or colder". In another level, the program states exactly how many units away the students are from uncovering the mystery animal. At the highest levels, your students will be given two animals to find, using two clues at the same time. Safari Search is a fun and creative way to promote logical thinking. Different skill levels provide an ever-increasing challenge for students. (Apple II+,IIe,IIc) (\$165 for 10 Pack)

**SEASTALKER** \$59.95  
Edusoft/Imagineering

A monster is laying waste to the Aquadome; your new submarine is untested and there maybe a traitor in the crew. Included are a logbook, secret infocards, decoder film, a nautical chart and more.

**SNOOPER TROOPS #1** \$64.95  
Imagineering & Ozisoft

The aim of this program is to find out who is trying to scare the Kim family from their new home and why! To solve this puzzle will require taking notes, drawing maps, organising information and learning new words.

**SNOOPER TROOPS #2** \$64.95  
Imagineering & Ozisoft

The aim of this program is to find who stole the dolphin from the aquarium. The user goes on a fact finding mission. Organising information and using reasoning skills to help find a solution.

**SORCERER** \$79.95  
Edusoft

Poses a mystical clue and a magical tour through the darker side of the Zorkian enchantment. To rescue the kingdom and locate your mentor, you must gain the powers of a true sorcerer.

**SPECTRUM** \$69.95  
Edusoft

The logic game challenges students to determine a hidden pattern of bars of different colours or shapes with a few clues as possible. Once a pattern is recognized, the students try to duplicate it by entering their own-pattern program. (Apple II+,IIe,IIc). (\$165 for 10 Pack)

**SPOTLIGHT** \$30.00  
Apple

This diskette contains four programs. Reflect and Spotlight use a joystick to rotate a mirror to reflect a light beam at a given object. Hot Stuff is a logical game like Mastermind. The aim is to identify a 3-digit number given clues about whether the number is included, correctly placed or incorrect. Boxed In is a computer version of Othello in several levels.

**STARCROSS** \$79.95  
Edusoft

In the year 2186 and deep space, you are destined to rendezvous with a starship. Intriguing commodities include an Alien microcosm and a complex, interlocking puzzle to solve.

**THE SUPER FACTORY** \$79.95  
Edusoft

Imagine seeing a cube with pictures on its face and imagine that you can rotate and look at the cube ... could you then duplicate the cube? Both the natural world and the world created by technology abound with three dimensional, geometric forms. Yet we do very little to teach our students about spatial geometry. The Super Factory is a unique new way to help you bridge that gap.

From the planning stages to the final product, with the Super Factory, your students are in control. They are taught problem solving strategies as they research and design products and challenge each other. Different levels of difficulty encourage students to attain new heights in logical thinking. (Apple IIe,IIc) (\$165 for 10 Pack).

**TARGETS** \$69.95  
Edusoft

This thought provoking game consists of (1) a pair of numbers from 1-9, (2) the operation(s) to be performed using the numbers and (3) a target number from 0-99. Students must combine the numbers with the operation(s) to arrive at the designated target.

Students can either select the target (the computer will give the two numbers) or they can choose the two numbers (in which case the computer will give the target). Higher levels require the use of more than one operation. (Apple II+,IIe,IIc) (\$165 for 10 Pack)

**TEASER BY TOBBS** \$69.95  
Edusoft

Meet Tobbs -- the lovable character who helps students to think logically to solve addition and multiplication problems. In two challenging programs, a grid and a character called Tobbs appear on the screen. The grid presents a succession of math problems, each with a missing number. Students use logic to decide which number can't be, might be or must be the number that solves the problem on the grid. Both program offer six levels of difficulty and an extensive teachers guide. (Apple II+, IIe,IIc) (\$165 for 10 Pack)

**TELARIUM SERIES OF ADVENTURES** \$60.00 each  
Computer School Service

These Hi-Res adventures encourage students to become involved in stories written by famous authors. Titles include: AMAZON, DRAGONWORLD, FAHRENHEIT 451, SHADOW KEEP, NINE PRINCES IN AMBER and PERRY MASON: THE CASE OF THE MANDARIN MURDER.

**TIP 'N FLIP** \$69.95  
Edusoft

This fun and challenging program helps your students develop discrimination skills. The object of the game is to determine the moves that will flip a pattern so it matches the design specified by the computer. Students must mentally flip the pattern vertically or horizontally, or rotate the pattern right or left 90° until they feel the pattern will match the specified design. Students earn points for each correct answer. A "scratch pad" mode is

available where students may rotate and flip the selected design to help them decide the final moves, but it will cost one point for each "scratch pad" move made.(Apple II+, IIe,IIc) (\$165 for 10 Pack)

**TRADING POST** \$69.95  
Edusoft

Trading Post is a two player game involving strategy and problem solving. The object of the game is to be the first person to collect all the shapes that match a specific goal. Students take turns exchanging their shapes according to a set of Exchange rules, or they may request a shape at random from the computer.

Trading post gives the students practice in visual discrimination of shapes. Students learn to analyse their starting positions and plan a strategy that will help them reach their goal. Students learn to plan ahead because they analyse their future moves in order to use the best overall strategy. (Apple II+, IIe,IIc) (\$165 for 10 Pack)

**TROLL'S TALE** \$59.95  
Imagineering

An adventure game, written at an easy reading level. Vocabulary is controlled so that any young adventurer who can read at the third grade level can play the game without help. Basic skills include reading comprehension, map reading and lessons in logic. The object is to find and return the missing treasure. The package includes disk, map, 16 stickers, compass decal and a parent guide.

**WHERE IN THE WORLD IS CARMEN**  
SANDIEGO

Edusoft \$79.95

Explore the great cities of the world as you pursue master thieves. With the help of a copy of "World Almanac and Book of Facts" you become a seasoned detective and a knowledgeable world traveler.

**WITNESS** \$74.95  
Edusoft

A classic murder mystery. Blackmail turns to murder and there are many suspects. Armed with a pack of physical evidence, you face a tangled web of clues, motives and alibis.

**WIZARD OF OZ** \$69.95  
Edusoft

As Dorothy you go in search of the great and terrible Oz. This is an exciting interactive text and graphic game.

**ZORK 1** \$69.95  
Imagineering

One of three challenging adventure games for the over 12 year old. The dungeon contains unfriendly beings and also treasure. Your mission is to find 20 treasures.

**ZORK 2 & 3** \$69.95 each  
Imagineering

These are extensions of Zork 1 with the introduction of various other characters.

### 3. APPLICATIONS and INTEGRATED PACKAGES

An "Integrated Package" is a set of related applications, usually on one or more disks that are bought together. Most integrated packages have 3 or more application programs in a set allowing the user to learn one set of operating commands. One of the most powerful and important features of integrated packages is the ability to transport all of the information or selected portions into one of the other programs.

Application Programs can be broken into four main subheadings; Wordprocessors, Database Management Systems, Spreadsheets and Utility programs, including graphics, spelling checkers and telecommunications.

For convenience the packages in this section have been listed under one of the five subheadings;

1. Integrated Packages,
2. Wordprocessors,
3. Databases Management Systems and
4. Spreadsheets.
5. Utility Programs

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#### 1. INTEGRATED PACKAGES

##### APPLEWORKS \$186.00

**Apple**  
AppleWorks is an integrated package, consisting of a **Wordprocessor**, **Database**, and **Spreadsheet** program for the Apple IIe and IIc. Third party developers have written some very useful packages that will integrate and work with AppleWorks, SpellWorks and ReportWorks are two currently available (further details in this section).

The Word Processor has features which include: on-screen formatting, search and replace, headers, footers, page numbering, boldface, underline, superscript, subscript, what you see is what you get, read and write ASCII files.

The Data Base enhancements include: fast sorting, up to 30 categories or fields per file, up to 3 calculated categories per report, file merging, and can reads Quick Files or ASCII files, writes ASCII files.

The Spreadsheet has a maximum size of 999 rows by 127 columns with a full complement of built-in functions such as "net present value", "if-then", "choose", average, and "lookup". Features include: individually variable column widths, fully adjustable decimal points, dollar and percent sign formats for values, centering of data within cells, cell protection and locking, sorting of rows either alphabetically or numerically and up to 15 place numerical accuracy.

##### BANK STREET SERIES \$99.00 each

###### Imagineering/Edusoft/Edsoft

These programs work together or separately. They are an easy set of application programs to use by teachers, students and parents. Consists of four programs in the series.

**FILER:** A database management and filing program for small application. Integrates with the other programs in the Bank Street series.

**MAILER:** a simple mailing list and letter writing program that automatically sets up standard letter writing formats, instantly inserts names, addresses and opening salutation and closing of letters. Works with Bank Street Writer.

**SPELLER:** a spelling checker and automatic proofreading program that works with Bank Street Writer.

**WRITER:** The first of the word processing packages developed especially for student use. On the back of the diskette is an interactive introduction which is written for those with no knowledge of word processing. The scholastic version contains extensive teacher notes to give ideas on usage within the classroom. A new version of Bank Street Writer was released late in 1984 which allows alterations to be made to the text without changing modes. It also supports the 80 column card and the 128K version supports the AppleMouse.

##### THE HANDLER PACK \$249.00

###### Edusoft

The Handler Pack consists of **List Handler**, **Word Handler** and **Spell Handler** a software package for the Apple IIe and IIc. **Word Handler** is an easy to use word processor with features such as: on-screen centering, underlining and bold text, search and replace, headers, footers, page numbering, boldface, underline, superscript, subscript, what you see is what you get, with a choice of 40, 66 or 80 column display. **Spell Handler** is the complete spelling checker for **Word Handler** with over 90,000 words in the dictionary and the ability to add more. **List Handler** is a database program capable of storing up to 8,000 records per disk. Very easy and quick to use. Integrates with **Word Handler**.

##### HOME PAK \$70.00

###### HBS International

This program is an integrated software at a cheap price but full of sophisticated capabilities. It bring together three useful programs **Home Text**, a word processor program, **Home Find**, a database manager system and **Home Term**, a telecommunications program.

##### MOUSE SERIES \$130.00 each

###### International Solutions

The Mouse Series of software is designed to allow the use of the mouse with either an Apple IIe or IIc. These programs are both quick and easy to use but are still capable to performing many complex and difficult tasks, like cut and paste from one program to the next. Programs include:

**Mouse Budget:** is a program that will allow you to define up to 60 different accounts. The program can be used for school accounts or a small business.

**Mouse Calc:** is a powerful spreadsheet and graphics program. Design, create and enter your spreadsheet template, enter the data and then get the program to

produce a pie chart or column graph.

**Mouse Desk:** is a program selector and desktop organiser, allowing the user to load in several files and programs at once. Designed as a way of moving from one application to the next.

**Mouse Word:** is a powerful wordprocessor with cut and paste features plus a built-in data communications package. The program also contains a mail merge and search and replace options.

**PFS: BEST SELLERS** \$250.00

**Imagineering**

PFS: BEST SELLERS contains FILE, REPORT, PLAN and WRITE.

## 2. WORDPROCESSORS

**APPLE WRITER II** \$242.00

**StatusGraph**

A powerful ProDOS word processor that caters for standard letters, mailing lists, reports and general documents. Comes with a utility disk to allow the use of all the printer features that your printer is capable of printing, underlining, shadow, bold, italics, expanded, compressed, superscript and subscript, etc..

**\*AUSSIFRED** \$40.00

**Keyboard Connections**

AussiFrEd is a very easy but powerful public domain word processor written in ProDOS. The price is for the documentation plus membership to Keyboard Connections, a network of primary and secondary students and teachers around the world.

**FREEWRITER** Public Domain  
N.S.W.C.E.G. Disk 58

This program is straight forward wordprocessor written in ProDOS. It has many features that expensive wordprocessor don't have. Includes a built-in tutor.

**HOMEWORD** \$99.00

**Edusoft**

An easy and simple word processor to use. Selection of different formats and the like are completed by using icons. A new children's word processor which uses graphics to help children easily identify basic functions and commands. Editing may be completed during the writing process.

**MASTERTYPE 'S WRITING WIZARD**

**Edusoft** \$119.95

This wordprocessor and with built-in database system, has 6 different font types and can utilise full colour graphics.

**MULTISCRIBE** \$119.00

**Techflow**

This package has much to offer those Apple IIe and IIc owners who would like to get the same type of wordprocessing power and end product that a Macintosh can get. Multiscribe has a built-in font editor to design your own fonts, is supported by many

different interface cards and printers, has pull-down menus and looks just like MacWrite on the screen. The program will operate with or without a mouse but does require double high-res. The package comes with 8 different fonts, manual and a double sided disk.

**PFS: WRITE** \$175.00

**Imagineering**

PFS: Write is a word processor that is easy to learn and use. It works with FILE data to do 'mail merging', prints GRAPH created charts in documents. Can also merge PLAN data. Features word wrap, underlining and boldface on screen. Available ProDOS.

**SCREENWRITER IIe** \$188.00

**StatusGraph**

A powerful word processor that caters for standard letters, mailing lists, reports and general documents. Comes with a utility disk to allow the use of all the printer features that your printer is capable of printing, underlining, shadow, bold, italics, expanded, compressed, superscript and subscript, etc.

**\*STEMWRITER** \$123.00

**Stemsoft**

This program is an extremely powerful wordprocessing package for both the Apple IIc and IIe computers. Stemwriter allows you to display two separate documents or two different parts of the same document on the screen simultaneously, while up to 8 documents can reside simultaneously in memory. Features include full screen editing, you see what you get, block or column move, copy or delete / undelete, function keys, automatic word wrap, search and replace, indenting or hanging of paragraphs, on screen underlining, subscript / superscript, overstricking and alternative character sets, multiple column formatting, footnote etc. The package comes with a printer utility disk. Other related programs are Stemspeller and Stemfonts.

**\*ZARDAX I** \$166.00

**Edsoft/Computer Solutions**

This DOS 3.3 word processor will work on any of the Apple II's, the II+ however does require a keyboard mod. A powerful word processor that caters for standard letters, mailing lists, reports and general documents. Comes with a utility disk to allow the use of all the printer features that your printer is capable of printing, underlining, shadow, bold, italics, expanded, compressed, superscript and subscript, etc.

**\*ZARDAX II** \$166.00

**Edsoft/Computer Solutions**

This program is a more advanced version of Zardax I, it requires 128K and an Apple IIe or IIc. Added features include a simple database, full mail-merge capacity, multi-tasking - edit one document while you print another, pull-down menus, as well as all the general features all word processors have these days. ProDOS based, comes with a utility disk to allow the use of all the printer features that your printer is capable of printing, underlining, shadow, bold, italics, expanded, compressed, superscript and subscript, etc.

## 3. DATABASE MANAGEMENT SYSTEMS

**HABA CATALOGER** \$155.00

**HABA Systems**

This program is a flexible and easy filing system.

**HOMEWORD FILER** \$99.00

**Edusoft**

This is a record management system that is quick and easy to use, a good applications program to teach about databases.

**OMNIS DATA BASES \$300, \$450 and \$650**

**Blyth Australia Inc**

There are three powerful data base programs OMNIS 1, 2 and 3. **Omnis 1**, The File Manager, works like an electronic files and allow the user to design record cards. **Omnis 2**, The Information Manager, is a complete tool for the managements of information. **Omnis 3**, The Database Manager, is a complete applications generator including a relational and hierarchical system. It is easy to upgrade from one package to the next.

**PFS: FILE** \$175.00

**Imagineering**

PFS: File is an easy-to-use information management package that record, search, update and print information. It has sorting and flexible searching capabilities, calculated fields, ditto key, and a "3" across mail label facility. Available for DOS 3.3 or ProDOS.

## 4. SPREADSHEETS

**HABACALC** \$155.00

**HABA Systems**

This spreadsheet program which is simple to use and requires only 64K, has 64 columns by 254 rows and most of the features other more expensive ones have. An associated package, HABA Templates (\$93) has 54 different ready to use templates.

**MICROSOFT MULTIPLAN** \$134.75

**Microsoft**

This very popular and powerful spreadsheet program is available to schools at a reduced price for educational use. The program has on screen help and menus. It is capable of having 64 columns by 256 rows, and can produce standard DIF files. Multiplan has many built-in mathematical functions that can not be found on most other spreadsheets like standard deviation. Variable column widths from 3 to 33 characters. One very useful feature is the ability to name cells, columns, row and blocks, this makes the generation of formulae much easier than typing in references.

**PFS: PLAN** \$175.00

**Imagineering**

PFS: Plan is an easy to use spreadsheet which integrates with the rest of the PFS range. Available ProDOS.

**SPREADSHEET** \$90.00

**Statusgraph**

This program is capable of having 64 columns by 256 rows. and can produce standard DIF files. It has many built-in mathematical functions that can not be found on most other spreadsheets like standard deviation. Variable column widths from 3 to 33 characters.

**VISICALC** \$195.00

**Imagineering**

This very popular and powerful spreadsheet program is capable of having 64 columns by 256 rows and can produce standard DIF files. it has many built-in mathematical functions that can not be found on most other spreadsheets.

## 5. UTILITY PROGRAMS

**BRIDGE** \$29.95

**Ramware**

A utility program to transfer PFS files to text files.

**DOLLARS AND SENSE** \$199.00

**Imagineering**

This package is a useful accounting program that will store your financial records in an organised collection of account types like assets, liabilities, income, expenses and checking accounts. Available for the IIc & enhanced IIe.

**\*GRAPH WORKS** \$109.00

**Imagineering**

Graph works is a stand alone ProDOS package which utilizes data files like Appleworks spreadsheet files and plots them as four graph types-line,bar,stacked bars and pie. Supports most printers like Imagewriter, Scribe, Epson and Gemini.

**HABA MERGE** \$155.00

**HABA Systems**

This program is a form letter/ mailing list utility program for AppleWorks.

**HOMEWORD SPELLER** \$99.00

**Edusoft**

This program works with the Homeword word-processor. It forms the basis of a 28,000 word dictionary with enough space to add another 2,500 of your own words.

**PFS: GRAPH** \$175.00

**Imagineering**

PFS: Graph produces a line, bar, and pie charts. It works by itself or retrieves FILE or PLAN files.

**PFS: REPORT** \$175.00

**Imagineering**

PFS: Report produces multiply column reports from FILE data. Sorts numerically or alphabetically, gives totals, averages and counts of fields and calculated columns. Available ProDOS.

- PINPOINT** \$99.95  
**Imagineering/HBS International**  
 Pinpoint is a desktop accessories package to run in conjunction with Appleworks, other ProDOS application programs, or ProDOS BASIC routines. Pinpoint features an Appointment calendar, Calculator, Communications window for sending and retrieving information, Automatic phone dialer, Notepad, Quicklabel facility which allows graphics created in graphics programs to be merged into wordprocessing documents. Pinpoint runs transparently to all applications, and supports most popular printers and modems.
- PLUS WORKS** \$35.75  
**Techflow**  
 This program increases the available space in memory for AppleWorks files, expands the database to 4222 records, optional RAM disk. Enhanced version \$79.95, Memory Pack \$179.00.
- REPORTWORKS** \$165.00  
**Imagineering/HBS International**  
 This program is used in conjunction with AppleWorks. It allows the user to have greater flexibility in the reporting sections of AppleWorks. The program allows the user to create customised reports of a page long or more.
- SENSIBLE GRAMMAR** \$132.00  
**Statusgraph**  
 This program will read any ASCII text file and check for grammar mistakes, list the offending words and allow the user to correct them.
- SENSIBLE SPELLER** \$213.00  
**Imagineering**  
 This program will read any ASCII text file and check for spelling mistakes, list the offending words and allow the user to correct them. The misspelt words are highlighted within the context of the original document, this allows for the word to be ignored or marked for later correcting in the word processor. The program comes with a very large dictionary containing over 60,000 words and with the capacity to create and add many more to a supplementary dictionary of your own.
- SMART - THE CASH COMPUTER**  
**Campbell Software** \$150.00  
 The cash computer provides an easy to use system for managing a small business. It provides functions to control stock on hand, individual items sold, re-order levels, banking summary, debtors statements, calculates change and keeps track of cash, cheques, cards and change. Suitable for many applications within schools.
- SPELL IT** \$93.00  
**HABA Systems**  
 This dictionary has over 33,000 words and works with any ASCII text file.
- SPELLWORKS** \$75.00  
**HBS International**  
 This program is used in conjunction with AppleWorks, it contains a spelling checker program as well as a mail merge routine.

- \*STEMSPELLER** \$48.00  
**Stemsoft**  
 This spelling checker is a single pass text checker with a 30,000 dictionary and provision to create libraries of 3,000 words. StemSpeller will operate with SpellWriter, AppleWorks, Zardax II and any ASCII file.
- \*STEMTUTOR** \$28.00  
**Stemsoft**  
 StemFont allows the user to conveniently design and download custom character shapes to a variety of printers including the Epson FX-80 and SQ-2000, Apple Imagewriter and National EN P1091. The custom character shapes, once downloaded, can be called up by any application program which sends the correct selection sequence to the printer.
- \*WORDWORKS** \$35.00  
**Jacaranda**  
 This teacher utility is used to organise student's stories into word list, Cloze and sentence matching exercises and many other useful activities. It then produces a printout to meet the individual skill development specified by the teacher. Program features include creating word lists, jumbled words, sentence strips, Cloze exercises, scrambled sentences, missing letters and the ability to read and create standard ASCII files.
- \*APPLEWORKS VIDEO** \$51.50  
 A video about the Word processing function of AppleWorks. This video introduces groups to the various features of the system whilst preparing such things as a newsletter, an essay with references and a science practical. The program is designed for use where hands on use is restricted or time is limited. Further videos covering the Spreadsheet and Database functions of AppleWorks are in preparation.

## 4. COMPUTER AWARENESS

- A COMPUTER IS...** \$59.95  
**Edusoft**  
 This program presents hardware in association with real world applications.
- \*APPLEWORKS VIDEO** \$51.50  
**Video Classroom**  
 A set of videos designed to introduce groups to the various functions of the word processor within AppleWorks. The videos cover the functions using examples like preparing a newsletter, writing an essay or a science practical. It is designed to be used where resources and or time are limited. Further videos on the Spreadsheet and Database function are in preparation.
- ARROW DYNAMICS** \$79.95  
**Edsoft**  
 The object of the game is to move an arrow across a gameboard to one of two goals by using programming statements. Avoiding obstacles, mirrors, prisms, puzzles and competition on your way.
- BASIC COMPUTING**  
**Student's book** \$4.20  
**Teacher's book** \$4.80  
**Ashtron Software**  
 This package consists of six workbooks suitable for grades 1 to 6. Each 64 page workbook features exercises to prepare children for use of the computers. Exercises include: thinking like a computer, what is a computer, problem-solving, understanding processes, giving directions to a computer, flowcharts, parts of a computer, using the computer, computer programs, input and output and computer terminology.
- CAREERS IN COMPUTING** \$83.00  
**Micro Nationwide**  
 Four full-colour filmstrips covering a variety of careers in computing. The areas covered are: programming, data processing, hardware development, service and peripheral careers.
- COMPUTER APPLICATIONS** \$89.00  
**Micro Nationwide**  
 This video teaches the basic techniques needed to master most software application programs. The program looks at the three main applications; word processing, data base management and electronic spreadsheets. The program also covers points and hints on integrated software packages.
- COMPUTER APPLICATIONS PROJECT**  
**Addison Wesley** \$90.00  
 The four programs included in the Computer Applications Project show how computers are used in our society and include: Airline Reservations, Personal Banking, Supermarket Stock Control and Taking a Census. There is a student book providing background information, exercises and sample questions for each of the applications. Each package contains four student books, a teacher's guide and two diskettes (master and back-up). Extra student books in packs of 5 are available.
- COMPUTER CONCEPTS** \$59.95  
**Edusoft**  
 With this program students can learn about computer history, how a computer system works, parts of a computer system, flowcharting, simple BASIC statements and computer use.
- \*COMPUTER DIARY** \$30.00  
**Chopping, Mr. E.G.**  
 Using only four keys you can gain access to any date in the current year, enter an item and have it stored on disk. At the beginning of each month you can get a printout to use as a memopad. A whole month can be scanned on the screen, the number of days between any two dates calculated or have a cyclic event automatically stored.
- COMPUTER DISCOVERY** \$265.00  
**Science Research Associates**  
 A package suitable for grades 6 to 12 covering the fundamental understanding of computers. Topics include: computer history, hardware and software concepts, writing simple programs, and the computer's role in society. The package includes a diskette, teacher's guide and 20 student workbooks.
- COMPUTER KIT** \$222.30  
**Fishertechnik**  
 Introduces students to the use of a computer controlled robots and their role in our society. The Kit allows students to interface the computer with building block and motors to create different working models. These include a simple traffic light system, aerial rotators, teach-in robots, plotters and a solar-cell tracker.
- COMPUTER LITERACY: A HANDS ON APPROACH** \$46.20  
**McGraw-Hill**  
 This is a textbook that comes with a disk. The topics of the book include history, social issues, computer usage, problem solving, applications and structured programming. The disk has practical exercises for students to use in hands-on activities. Workbook \$14.05, Answer Key \$12.95, Text \$21.95, Teachers Guide & Disk \$46.20
- COMPUTER LITERACY INSTRUCTION**  
**Micro Nationwide** \$69.00  
 Developed as an inservice aid for teachers, administrator, etc. Lessons include: language, booting, the keyboard, the computer as a calculator, CAL (drill & practice, tutorial and simulation), setting-up and managing the microcomputer and the selection and evaluation of software.
- COMPUTER LITERACY INSTRUCTIONAL PROGRAM**  
**Micro Nationwide** \$69.00  
 CLIP, developed and tested during a series of inservice courses, is designed for use by beginners to computing. A self-pacing, step-by-step format provides users with first hand experience. A good introduction to computer literacy. Contains workbook and a disk, with backup. Additional workbooks \$3.25 each.

**COMPUTING TOOLS: APPLEWORKS****HBS International \$75.00**

This is a tutorial program on the ever popular and easy to use program, AppleWorks. Gives students practical exercise in the use of the three separate programs and how they can be integrated.

**DATABASE MANAGEMENT SYSTEMS****Micro Nationwide \$69.95**

This program introduces students to data bases and how they are created and managed. It provides a step-by-step introduction to what a database program is and how it works. Topics include;

1. introduction to databases,
2. creating an electronic database, and
3. concepts in data base management systems.

**DATABASE TUTOR \$49.95**  
**Edusoft**

This program describes what a database system consist of, what they do, how they work and what to look for when considering one for your own use.

**EDUCALC \$64.95**  
**Grolier**

This is a program designed to instruct students on how to use, design and setup spreadsheets. This program is a simplified electronic spreadsheet with templates on science, maths and budgeting activities are available. Cost of templates \$19.95 each.

**\*FILING CLERK \$50.00**  
**Chopping, Mr. E.G.**

This simple but easy database system allows students to create up to ten files per disk, each file can contain up to 250 records and each record can have up to 16 categories. The program includes a fast and powerful searching routine, add, delete and update editor and allows each file or records to be printed.

**FIRST ENCOUNTERS \$98.00**  
**Micro Nationwide**

This program for primary children contains both computer and classroom activities. Children use logic and problem-solving techniques to develop simple programs. The program includes four matching or sequencing card games to introduce computer terms and language, keyboard skills and how to start, run and turn off the computer. Also included are 5 keyboard charts for students to practice keyboard skills while not on the computer. Ten computer miniprograms give students the opportunity to experiment with BASIC. A diskette containing two programs, the first to check the child's understanding of computer terms and another to evaluate the child's comprehension of computer concepts is included.

**\*GENESIS \$18.00**  
**Bartlett, Mr W.D.**

This is a set of three integrated packages consisting of Note Pad, a simplified word processor, CalcSheet, a simplified spreadsheet and Filing Cabinet, a filing system. The package uses BASIC as an operating environment and is supplied on a disk with Beginning BASIC. Licence agreement available.

**HOW TO OPERATE THE APPLE IIe \$65.95****HOW TO OPERATE THE APPLE \$65.95****Imagineering**

3 Audio Cassettes and an Operator's Guide. The system will teach the essential operations of an Apple IIe or Apple II+. In three one to two hour sessions the programs will explain how to use each key, load, run, save, copy and modify programs.

**101 ACTIVITIES FOR COMPUTER CLASSES****HBS International \$30.00**

This handy book lists 101 constructive activities designed on worksheet masters to keep any student busy. Topics include; history of computers, the impact of computers on society, the computer industry, number systems, programming concepts, ect.

**\*INSIDE THE APPLE Public Domain**  
**Apple Computer**

The is a graphics programs explaining the relationship between the main components of the Apple. It is in two forms, the first a continuous demonstration with text, the second graphics only to be used as a group demonstration. This disk is AppleSwap Disk 1.

**INTRODUCTION TO COMPUTER APPLICATIONS****McGraw Hill**

An introductory package suitable for primary or junior secondary students covering simple computer terminology, parts of the computer and keyboard skills. Teacher's notes and student activity sheets are included. Applications Text \$23.95, Applications Teacher's Guide \$42.95 and Disk \$21.95

**INTRODUCTION TO DATA PROCESSING****McGraw-Hill**

This is a complete course in the concepts of data base management system (DBMS). The package comprises of a Text \$33.95, Source Book & Key \$12.95, Work Kit IIe \$21.95, Instruction Manual for Kit \$6.95, Microcomputer Application Kit \$163.20 and Key \$10.95.

**LEGO LINES \$NA****Lego Australia Pty Ltd**

A program which allows the control of various Lego devices. The program s designed to allow students to experiment with the control of various mechanical devices which they may construct. The kits may be purchased separately or a bundle of kit plus interface may be purchased. The program was developed in Australia and is due for release in February 1987.

**MEET THE COMPUTER - BEGINNERS \$49.95**  
**Edsoft**

A how-to program for students who want to develop computer literacy skills from the beginning or simply brush up on their computer skills.

**MEET THE COMPUTER - INTERMEDIATE \$49.95**  
**Edsoft**

A follow on from the beginners program this how-to program for students who want to develop computer literacy skills from the beginning or simply brush up on their computer skills.

**MICRO-APP PACKAGE \$18.00****Bartlett, Mr W.D.**

This package contains simplified versions of a spreadsheet and of a database program. These applications are straight forward enough to be used as introductory programs for computer application lessons.

**MONIVALE DATABASE \$55.00****Science Education Resources**

This program allows the user to create a database of either random or sequential access files where each file can hold up to 200 records, each record can have 6 fields and each field can have up to 30 characters.

**\*MULTIUSER SYSTEM \$18.00****Bartlett, Mr W.D.**

The package contains a formatting routine designed to set up a disk whose directory is divided into 7 separate accounts. Each account is accessed by giving its account number and password. 7 students may share the same disk and illustrates the idea of security.

**OPERATING THE MICROCOMPUTER****Micro Nationwide \$89.00**

A videocassette to help students and teachers to operate the Apple. Also included in the package is a leader's guide, 5 user's handbooks, 3 reproducible activity sheets and 1 answer sheet. Topics covered include: turning on the Apple, Inserting the disk, running a program, stopping the program and recognising loading problems.

**PLOTTER-SCANNER \$370.30****Fishertechnik**

This package combines the possibilities of two graphics units in one model. The plotter supports graphics work on paper sizes up to A4. Two bipolar stepping motors give it positioning accuracy of better than 0.5mm. All the motor control software is written in BASIC. The scanner records and digitises a picture from its base into the computer.

**ROBOT ARM \$410.30****Fishertechnik**

This is a training robot arm that incorporates three axes of movement to work at any point with a payload up to 100g. The positioning system depends on three infra-red photo interrupters, achieving repeatability of 1mm. Further building instructions and software are included. All components of this kit as well as the other Fishertechnik products can all be combined together.

**ROBOT ODYSSEY \$69.95****Edsoft**

Sequel to Rocky's Boots. You enter a world where you are the game designer. You design chips and build robots. The object of the program is to construct a robot play the adventure game, which is underground, in order to find your way back to the surface and to civilisation.

**ROCKY'S BOOTS \$69.95****Ashtron Software**

Rocky's Boots helps children from 9 years onwards build a groundwork in logical skills. The player who is represented as an energy source builds logical machines with bells, clackers, switches and gates. A program that

would also be suitable for reluctant readers who are fascinated with circuitry.

**SPECTRUM \$69.95****Edsoft**

The logic game challenges students to determine a hidden pattern of bars of different colours or shapes with a few clues as possible. Once a pattern is recognized, the student tries to duplicate it by entering their own-pattern program. (Apple II+, IIe, IIc). (\$165 for 10 Pack)

**\*SPELLCHECKER \$30.00****Chopping Mr. E.G.**

The Spellchecker allows you to create dictionaries of your own special words and then review the list. A useful program to introduce students to spelling checkers.

**\* THE SPRITE CARD \$310.00****Australian Video Presentations**

The Sprite interface card for the Apple together with the software allows the Apple to support sprites on 32 different planes. A sprite is a graphical object whose shape may be defined by the user and which may be positioned on the screen using coordinates. The shape may then be animated by programming a change in the value of the coordinates. The sprites are driven by an animation language, Spritesoft, which is presently driven through BASIC but will be extended to support LOGO.

**SUPERPILOT + LOG \$265.00****Apple Computer**

A powerful authoring language allowing teachers to produce learning materials combining text, graphics and sound without the need to be an expert programmer.

**THE TALKING APPLE \$3950.00****Quantum Engineering Design Pty Ltd**

The system INCLUDES an Apple IIe PROFESSIONAL SYSTEM, an Echo II speech synthesiser which fits entirely inside the cabinet of the Apple and a small speaker with a volume control and headphone jack. As each letter is typed the computer speaks the letter and when the operator is finished the computer will read the text back again.

**\*THE TEACHER'S DATABASE \$40.00****Messing Mr. J.**

This very easy and simple database is ideal to teach students how to design create and use a database package. The program has one of the fastest sorts available for the Apple (200 records in 3 sec). The package comes with several sample files, documentation and a back-up service.

**THE WORKS \$69.95****Grolier**

This is an integrated software program for use with computing classes. It is a complete introduction to modern computing applications. The program covers work on keyboarding, word processing, database managements, manipulating data, applications, problem-solving and art and music. Comes with a teacher's guide, black-line masters and program disk.

## 5. COMPUTER SCIENCE / COMPUTER STUDIES

The area of Computer Studies or Computer Science covers many different fields of study. Some of these fields are covered in other sections of this directory, so do not hesitate to lookup details about programs that could be useful in the teaching of Computer Studies or Computer Science classes. Some areas that might be studied are:

### APPLICATION PACKAGES and INTEGRATED SOFTWARE: USING AND LEARNING ABOUT

See sections 3 for details on different programs that could be used to teach computer studies/science students about such packages.

### DATABASES: USE and APPLICATIONS OF

See sections 7 for details on different programs that could be used to teach computer studies/science students about database systems.

### GRAPHICS and SOUND

See sections 12 and 21 for details on different programs that could be used to teach computer studies/science students about graphics and sound.

### PROGRAMMING: USING LANGUAGES TO DESIGN AND WRITE PROGRAMS

See sections 29 to 31 for details on different programming languages that could be used to teach computer studies/science students about programming and coding.

### SIMULATIONS: USING AND LEARNING ABOUT

See section 24 for details on different simulation packages that could be used to teach computer studies/science students about simulations.

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#### A COMPUTER IS... \$59.95

Edusoft

This program presents hardware in association with real world applications.

#### ADVENTURE CREATOR \$49.95

Edusoft

Learn BASIC computer programming design and logic while designing a world of mazes, monsters and more. The need for mapping, problem-solving and strategy skills are essential parts of learning to this program.

#### APPLE VET \$25.00

Bartlett, Mr W.D.

Apple vet contains a collection of programs for examining and editing information stored on disk. The program includes Sector Editor and Track Editor. Comes with instruction manual.

#### ARROW DYNAMICS \$79.95

Edsoft

The object of the game is to move an arrow across a gameboard to one of two goals by using programming statements. Avoiding obstacles, mirrors, prisms, puzzles and competition on your way.

### BASIC COMPUTING

Student's book \$4.20

Teacher's book \$4.80

Ashton Software

This package consists of six workbooks suitable for grades 1 to 6. Each 64 page workbook features exercises to prepare children for use of the computers. Exercises include: thinking like a computer, what is a computer, problem-solving, understanding process, giving directions to a computer, flowcharts, parts of a computer, using the computer, computer programs, input and output and computer terminology.

### CAREERS IN COMPUTING \$83.00

Micro Nationwide

Four full-colour filmstrips covering a variety of careers in computing. The areas covered are: programming, data processing, hardware development, service and peripheral careers.

### COMPUTER APPLICATIONS \$89.00

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This video teaches the basic techniques needed to master most software applications programs. The program looks at the three main applications; word processing, data base management and electronic spreadsheets. The program also covers points and hints on integrated software packages.

### COMPUTER APPLICATIONS PROJECT

Addison Wesley \$90.00

The four programs included in the Computer Applications Project show how computers are used in our society and include: Airline Reservations, Personal Banking, Supermarket Stock Control and Taking a Census. There is a student book providing background information, exercises and sample questions for each of the applications. Each package contains four student books, a teacher's guide and two diskettes (master and back-up). Extra student books in packs of 5 are available.

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With this program students can learn about computer history, how a computer system works, parts of a computer system, flowcharting, simple BASIC statements and computer use.

### \*COMPUTER DIARY \$30.00

Chopping, Mr. E.G.

Using only four keys you can gain access to any date in the current year, enter an item and have it stored on disk. At the beginning of each month you can get a printout to use as a memopad. A whole month can be scanned on the screen, the number of days between any two dates calculated or have a cyclic event automatically stored.

### COMPUTER KIT \$222.30

Fishertechnik

Introduces students to the use of a computer controlled robots and their role in our society. The Kit allows students to interface the computer with building block and motors to create different working models. These include a simple traffic light system, aerial rotators, teach-in robots, plotters and a solar-cell tracker.

**COMPUTER LITERACY: A HANDS ON APPROACH**  
McGraw-Hill \$46.20

This is a textbook that comes with a disk. The topics of the book include history, social issues, computer usage, problem solving, applications and structured programming. The disk has practical exercises for students to use in hands-on activities.

Workbook \$14.05, Answer Key \$12.95, Text \$21.95, Teachers Guide & Disk \$46.20.

**COMPUTING TOOLS: APPLEWORKS**

HBS International \$75.00

This is a tutorial program on the ever popular and easy to use program, AppleWorks. Gives students practical exercise in the use of the three separate programs and how they can be integrated.

**DATABASE MANAGEMENT SYSTEMS**

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This program introduces students to data bases and how they are created and managed. It provides a step-by-step introduction to what a database program is and how it works. Topics include;

1. introduction to databases,
2. creating an electronic database, and
3. concepts in data base management systems.

**DATABASE TUTOR** \$49.95

Edusoft

This program describes what a database system consist of, what they do, how they work and what to look for when considering one for your own use.

**DISK REPAIR KIT** \$49.95

Edusoft

This program helps to repair diskettes that appear to be "crashed".

**EDUCALC** \$64.95

Grolier

This is a program designed to instruct students on how to use, design and setup spreadsheets. This program is a simplified electronic spreadsheet with templates on science, maths and budgeting activities are available. Cost of templates \$19.95 each.

**\*FILING CLERK** \$50.00

Chopping, Mr. E.G.

This simple but easy database system allows students to create up to ten files per disk, each file can contain up to 250 records and each record can have up to 16 categories. The program includes a fast and powerful searching routine, add, delete and update editor and allows each file or records to be printed.

**\*GENESIS** \$18.00

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This is a set of three integrated packages consisting of Note Pad, a simplified word processor, CalcSheet, a simplified spreadsheet and Filing Cabinet, a filing system. The package uses BASIC as an operating environment and is supplied on a disk with Beginning BASIC. Licence agreement available.

**INTRODUCTION TO COMPUTER**

APPLICATIONS

McGraw Hill

An introductory package suitable for primary or junior secondary students covering simple computer terminology, parts of the computer and keyboard skills. Teacher's notes and student activity sheets are included.

Applications Text \$23.95, Applications Teacher's Guide \$42.95 and Disk \$21.95

**INTRODUCTION TO DATA PROCESSING**

McGraw-Hill

This is a complete course in the concepts of data base management system (DBMS). The package comprises of a Text \$33.95, Source Book & Key \$12.95, Work Kit Ie \$21.95, Instruction Manual for Kit \$6.95, Microcomputer Application Kit \$163.20 and Key \$10.95.

**LEGO LINES** \$NA

Lego Australia P/L

A program designed to allow students to experiment with the control and programming of various motorized devices. The devices may be constructed by the students and altered to suit a particular purpose. A comprehensive guide is included with the package. The system is due for release in February 1987.

**\*LOWLEV** \$60.00

Data Publishing

A pseudo machine language programming system which helps to introduce the concepts of assembly language and machine code, and to explain how a computer works. This program is a companion to a text entitled 'Information Technology Studies' and has a classroom Pack available for \$165.00. The program is one of three available for the fee above, the others are sDATA and MATCH-MAKER.

**\*MATCH-MAKER** \$60.00

Data Publishing

A special purpose database system, designed to introduce the important social issues of privacy and the rights of the individual. This program is a companion to a text entitled 'Information Technology Studies' and has a classroom Pack available for \$165.00. The program is one of three available for the fee above, the others are sDATA and LOWLEV.

**MICRO-APP PACKAGE** \$18.00

Bartlett, Mr W.D.

This package contains simplified versions of a spreadsheet and of a database program. These applications are straight forward enough to be used as introductory programs for computer application lessons.

**MICRO DISCOVERY** \$265.00

Science Research Associates

Comprises two diskettes, 20 student worktexts and a Teacher's guide and is aimed for grades 5 to 8. The program gives an introduction to microcomputers without technical jargon.

**MICROS MADE EASY** \$265.00

Science Research Associates

This package includes three diskettes, a manual and a start-up chart. The first diskette includes explains the functions of a computer, keyboard skills, the abilities of the computer, parts of the computer and preliminary activities for programming stressing sequencing of commands. Disks 2 & 3 concentrate on BASIC programming.

**\*MULTIUSER SYSTEM** \$18.00

Bartlett, Mr W.D.

The package contains a formatting routine designed to set up a disk whose directory is divided into 7 separate accounts. Each account is accessed by giving its account number and password. 7 students may share the same disk, it illustrates the idea of security.

**\*PILOT** \$45.00

Data Publishing

This language is a textually based language contrasting with algebraic based languages such as BASIC and Pascal. It is oriented towards natural language conversations and was first developed as an Author language for producing CAL materials.

In a computer science course such a piece of software would provide students with a different perspective upon the interaction of man and machine. A classroom pack is available and there are two versions of this PILOT, Core and Seasen-Pilot 3.1.

**PLOTTER-SCANNER** \$370.30

Fishertechnik

This package combines the possibilities of two graphics units in one model. The plotter supports graphics work on paper sizes up to A4. Two bipolar stepping motors give it positioning accuracy of better than 0.5mm. All the motor control software is written in BASIC. The scanner records and digitises a picture from its base into the computer.

**ROBOT ARM** \$410.30

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This is a training robot arm that incorporates three axes of movement to work at any point with a payload up to 100g. The positioning system depends on three infra-red photo interrupters, achieving repeatability of 1mm. Further building instructions and software are included. All components of this kit as well as the other Fishertechnik products can all be combined together.

**ROBOT ODYSSEY** \$69.95

Edusoft

Sequel to Rocky's Boots. You enter a world where you are the game designer. You design chips and build robots. The object of the program is to construct a robot play the adventure game, which is underground, in order to find your way back to the surface and to civilisation.

**ROCKY'S BOOTS** \$69.95

Ashtron Software

Rocky's Boots helps children from 9 years onwards build a groundwork in logical skills. The player who is represented as an energy source builds logical machines with bells, clackers, switches and gates. A program that

would also be suitable for reluctant readers who are fascinated with circuitry.

**\*sDATA** \$60.00

Data Publishing

A general purpose student database management system. This program is a companion to a text entitled 'Information Technology Studies' published by Jacaranda. It has a classroom pack available for \$165.00 and has two companion programs included in the price, MATCH-MAKER and LOWLEV.

**SPECTRUM** \$69.95

Edusoft

The logic game challenges students to determine a hidden pattern of bars of different colours or shapes with as few clues as possible. Once a pattern is recognized, the student tries to duplicate it by entering their own-pattern program. (Apple II+, IIE, IIC). (\$165 for 10 Pack)

**\*SPELLCHECKER** \$30.00

Chopping Mr. E.G.

The Spellchecker allows you to create dictionaries of your own special words and then review the list. A useful program to introduce students to spelling checkers.

**\* THE SPRITE CARD** \$310.00

Australian Video Presentations

The Sprite interface card for the Apple together with the software allows the Apple to support sprites on 32 different planes. A sprite is a graphical object whose shape may be defined by the user and which may be positioned on the screen using coordinates. The shape may then be animated by programming a change in the value of the coordinates. The sprites are driven by an animation language, Spritesoft, which is presently driven through BASIC but will be extended to support LOGO.

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A powerful authoring language allowing teachers to produce learning materials combining text, graphics and sound without the need to be an expert programmer. APPLE CO-PILOT is the tutorial disk for this program.

**THE TALKING APPLE** \$3950.00

Quantum Engineering Design Pty Ltd

The system includes an Apple IIE Professional System, an Echo II speech synthesiser which fits entirely inside the cabinet of the Apple and a small speaker with a volume control and headphone jack. As each letter is typed the computer speaks the letter and when the operator is finished the computer will read the text back again.

**TERRAPIN LOGO** \$149.95

Edusoft

This is another version of Logo which has been used by many people as an alternative to Apple Logo. The design philosophy and command structure are similar to those used in Apple Logo. Some textbooks are produced which give both procedure statements side by side.

**THE VISIBLE COMPUTER 6502 \$77.95****Edusoft**

This program is for the user who has a knowledge of programming but not of machine language. The program starts from the elementary steps in machine language and progresses on to the more complex. Comes with instruction manual and disk.

**THE WORKS \$69.95****Grolier**

This is an integrated software program for use with computing classes. It is a complete introduction to modern computing applications. The program covers work on keyboarding, word processing, database managements, manipulating data, applications, problem-solving and art and music. Comes with a teacher's guide, black-line masters and program disk.

**6. CREATIVE WRITING TOOLS****\*ADVENTURE-DISK \$35.00****Chopping, Mr. E.G.**

This disk allows the student to create and play adventure games (no graphics). It provides, a sample adventure game ready to play, an editor to enter and/or edit your own situations and instructions on how to use the package.

**ADVENTURES OF HORUS 1, 2 & 3 \$50.00 each****HBS International**

These are three different sets of stories with pictures that feature a large animal called Horus who has been adopted by a young girl, Shawna. The writers create their own accounts of his travels and mishaps.

**BANK STREET WRITER****Ashtron (School Edition)****\$125.00****Imagineering 64K.****\$99.95****128K.****\$79.95**

The first of the word processing packages developed especially for student use. On the back of the diskette is an interactive introduction which is written for those with no knowledge of word processing. The scholastic version contains extensive teacher notes to give ideas on usage within the classroom. A new version of Bank Street Writer was released late in 1984 which allows alterations to be made to the text without changing modes. It also supports the 80 column card and the 128K version supports the AppleMouse.

**BUILD A BOOK ABOUT YOU \$59.95 each****Edusoft**

With only a few key strokes you can create a personalised adventure story book. Story disk 1 is called Adventures on Riddle Planet while disk 2 is called The Greatest Circus Story Ever Told. This program is a good introduction for young children into creative writing.

Refill kits cost \$39.95

**THE CLASSROOM COMPUTER CHRONICLES****HBS International****\$60.00**

A program to assist students to write different kinds of articles for a classroom newspaper.

**THE COMPUTER CHRONICLE NEWSWIRE****HBS International****\$85.00**

An interactive writing system which helps school children learn to write by becoming reporters for a news network that extends across the nation. Students can choose English or Spanish. This program requires the Writer's Assistant.

**THE EXPOSITORY WRITING TOOLS \$50.00****HBS International**

Helps writers learn how to create expository texts. Students contribute to the development of expositions and then take over more of the task of writing.

**EXTRA! EXTRA! \$55.00****HBS International**

Students read the clues, track down the facts (who, what, where, when, why or how) and submit their story to go to press. Three levels of play: Cub, Staff or Ace Reporter. For Year 3 and above.

**FACT & FICTION TOOLKIT \$59.95****Ashtron Software**

This package includes two programs - Story Maker and Secret Filer. Story Maker allows stories to be created and illustrated. Graphics may be drawn using the mouse or joystick or pictures selected from the "Story Maker" gallery. Pictures and stories may be easily combined and the completed story saved to disk or printed. Story Maker requires 128K of memory. (The Secret Filer is an easy to use filing system. Files are limited to five categories. Files may be sorted alphabetically using any category. Searches must be exact.)

**\*FANTASY ISLE \$70.00****Prologic**

Children follow a fantasy story on the computer screen, making decisions about what should happen next. During the story the children are asked to name characters and insert some short passages, then they write their own ending. Each child's story may be printed.

**HOMEWORD \$99.95****Edusoft**

An easy and simple word processor to use. Selection of different formats and the like are completed by using icons. A new children's word processor which uses graphics to help children easily identify basic functions and commands. Editing may be completed during the writing process.

**INTERACTIVE TOOLS \$65.00 each****HBS International**

This set of program allows students to create their own stories by selecting options, sequencing events and/or writing their own text. The stories can be stored, printed and edited using the Writer's Assistant.

**KIDWRITER \$49.95****Imagineering**

Allows children to create their own storybook including colourful scenes, write stories and even music to go with them. Children can choose their own story and picture settings from a farm to a theatre to outer space with a choice of 99 different characters and objects to add to the scene. Stories may continue from one page to another.

**MAGIC SLATE \$139.00****Edusoft**

A word processor designed by teachers who recognise the potential of the computer to foster proof-reading and revision. Magic Slate has a full range of features: large letters, bold print, italics, subscript, superscript, underlining, centering, deleting and inserting. Students will especially like the "live" screen (what you see is what you get). All features have been carefully designed and extensively classroom tested for ease of use. Special "help

screen" provide information and constant prompting. Unlike many word processors, Magic Slate "grows" with your students. Since it comes with 20, 40 and 80 column versions, Magic Slate is equally appropriate for a first grade poem or a senior high paper. Large letters on a 20 column screen make it ideal for young students. (Apple II, IIe, IIc)

**MECC SPELLER** \$60.00  
HBS International

A spelling checker program that works with MECC Writer. Teachers may tailor the package to their own needs by adding new words, comments or definitions.

**MECC EDITOR** \$60.00  
HBS International

This program works with text written on MECC Writer. Through questions of organization, supporting evidence, style, usage, mechanics and transitions, students are able to examine their prose. The end result being cleaner, smoother writing.

**MECC WRITE START** \$45.00  
HBS International

This program encourages the use of MECC Writer. Students can experiment with the power of words and the relationship between language and ideas as they become more comfortable expressing themselves in writing. An Apple IIe with 80 col. card or an Apple IIc and a printer are required.

**MECC WRITER** \$75.00  
HBS International

This program incorporates many of the features in other MECC packages, thus allowing students to learn only a few new commands. Students use the same screen to compose, edit and print text.

**MICROZINE #1 - 13** \$49.95 each  
Ashtron Software

Each disk has a feature program and three other programs on it. The programs are of generally good quality and designed for educational use. The concept has been quite well received in some schools and is worth consideration.

**MILLIKEN WORD PROCESSOR** \$95.00  
Brittanica Education Services

A children's word processor which uses graphics to help children easily identify basic functions and commands. Commands are chosen by pressing the first letter of the command. Editing may be completed during the writing process. The document may be printed to screen to check the format.

**THE NARRATIVE WRITING TOOLS** \$50.00  
HBS International

This program helps writers learn to create narratives. There are four sections on the disk and each varies in the level of support given to the writers.

**NEWSROOM** \$79.95  
Dataflow

This package allows students to design, produce and print posters, newspapers, newsletters and handouts for clubs, classes, family, school and church groups. It supports the keyboard, joystick, mouse and Koala Pad and works on an Apple II+, IIe or IIc. The program has 6 different sections, **Photo Lab, Layout, Copy Board, Banner, Press and Wire Service.**

The Photo Lab is used to create and use pictures in banner and panel designs. The copy board allows text to be placed with a picture to create a panel. The Banner is used to create stylish heading for the job. While the layout section bring together the whole job before going to the press. The wire service can be very useful for sending copies to other areas by mean of electronic mail.

Newsroom has its own library of graphics that can be placed and edited called Clip Art. Additional graphics disk are listed under GRAPHICS in this directory.

**PLAY WRITER SERIES** \$39.95 each  
Grolier

This series of programs allows students to write, edit, illustrate, print and bind their own books. Choose from four possible subjects: Adventures in Space, Tales of Me, Mystery! and Castles and Creatures. Playwriter comes complete with special paper, colour page illustrations, stickers, end pages and hardcover book jackets.

**PFS: WRITE - SCHOLASTIC** \$125.00  
Ashtron Software

A complete software and courseware package put together by Ashtron that allows students to learn and practise word processing and to participate in creative writing session. A excellent classroom resource with additional programs available, PFS: Write Activity Files and Writing with PFS: Write.

An upgrade package can be bought from Ashtron to upgrade any old Bank Street Writer, cost \$49.95.

**THE POETRY PROMPTER** \$50.00  
HBS International

This program helps to write various forms of poetry including structured poetry forms, more free form as well as more playful poetry.

**PRINTMASTER** \$79.95  
Dataflow

This program combines graphics and text in any arrangement to create attractive, well designed and professional looking products. PrintMaster will allow you to mix different fonts on any page, with upper and lower case as well as preview your work before you print it out. The program comes with a calendar creator and a utility to set up your printer.

PrintMaster has its own library of graphics that can be placed and edited called ArtGallery I for \$45.

**STORY MACHINE** \$38.00  
StausGraph

An educational game that helps children learn to write sentences, paragraphs and simple stories using a limited vocabulary. The child can then see the story come to life. For the 5 to 8 year old.

**STORY MAKER** \$49.95  
Ashtron

A creative story construction kit (see Fact and Fiction Toolkit).

**STORY TREE** \$49.95  
Ashtron Software

This package allows students to create and read stories including choices about which way the story will unfold. Stories branch out from one beginning to many different endings. With the built-in word processor children can easily write and edit adventures, mysteries or other stories. A printer will allow the stories to be printed out.

**SUPER SCOOP** \$65.00  
Nelson

Super Scoop simulates the process of a news story as it unfolds. Students work through a series of interviews just as they would if they were working as reporters in a newsroom.

**SURVIVE** \$135.00  
McGraw-Hill

Survive helps teach students to become better writers and improve their reading skills. The program has three parts, **Time Loop** - each player lands in their time machine and they must work out exactly where they are. Hints given during the play to assist them.

**Rescue** - from Time Loops they proceed to the next phase where their time machine lands on the planet Scylla. The players' task is to find and rescue "the most precious thing in the universe. **Survive** - players are given gifts in Rescue and they are in a situation where their ships have crashed in a desert and they must find their way back to civilisation in order to survive.

**\*TAKE A HOLIDAY** \$70.00  
Prologic

Take a holiday focuses on developing writing and reading abilities. The children follow an Australian outback holiday story on the computer screen, making decisions about what should happen next. During the story the children are asked to name characters and must insert substantial amounts of their own text, then they write their own ending. Each child's story may be printed.

**TALES FROM THE ARABIAN NIGHTS** \$59.95  
Ozisoft

This program has many features including a 600 multiple choice fill-in reading and vocabulary questions on the flip side. Tale Maker enables students to create their own imaginative stories, while Quiz Maker is an authoring system to create their own questions and answers about their stories. The disk also has a graphics concentration game called Arabian Match Game.

**TEACHER'S NOTEBOOK** \$39.00  
Eureka Software

A program to allow teachers to design comprehension and cloze activities. Lettering is provided in two sizes, 20 characters per line and 40 characters per line. A word, sentence or a page can be displayed at any one time in upper and lower case (even on an Apple II+).

**THAT'S MY STORY** \$79.95  
Dataflow

This program motivates and encourages young children and reluctant writers with either "story starters" or "what if" suggestions. The program has a special branching feature that helps students to build upon the creative talents.

**WORDSMITH** \$65.00  
Jacaranda

Wordsmith is a simple wordprocessor designed for primary school students as an introduction to wordprocessors. This package has been designed to cater for large letters on the screen and on printouts. There is screen colour coding for each process text entering, text editing, searching, saving, retrieving and printing.

**THE WRITER'S ASSISTANT** \$110.00  
HBS International

A powerful word processing system that is easy to learn so that students and adults can easily master it. As writers gain more experience, they activate more sophisticated features.

**WRITING A NARRATIVE** \$75.00  
HBS International

Students learn story-starting techniques, use their own experiences in discovering key elements of narrative structure and see importance of narrative perspective. A printer may be used.

## 7. DATABASES

**\*AUSTRALIA, A PROFILE** \$110.00  
**Active Learning Systems**

A package allowing students to compare different regions in Australia. The data provides a comprehensive source of statistical information designed to encourage students to analyse information and to draw conclusions. The census information includes: population, population growth, age distribution, school leaving age, ethnic origin, income, housing, employment, industrial and agricultural activity.

**\*BIRDS OF ANTARCTIC DATABASE** \$35.00  
**Information Technology**

Produced as part of Information Technology Month in 1984. It contains data collected during a voyage in the Antarctic Ocean.

**\*BUSHRANGER DATABASE** \$95.00  
**Edusoft/Know ware**

The Bushranger Data Base provides not only direct data about the bushrangers, but also ballads and a dictionary capability so that students can check the meaning of unknown words in the ballad. It is well supported with worksheets and will provide a valuable resource for schools.

**\*CHOLES** \$49.00  
**Science Education Resources**

This program incorporates a database of cholesterol content of over 250 Australian foods, including take-away foods. Users can check cholesterol content of a food and enter a diet for analysis. After entry, diets may be modified by adding or deleting food items. The user guide includes materials that cover aspects of blood cholesterol levels and good nutrition and provides a context in which the program can be used.

**\*CLASSIFICATION GAME - ANIMALS** \$25.00  
**Gemini Software**

Enquires about the characteristics of an animal chosen by the computer to determine which one it is from a list of 36 vertebrates and invertebrates.

**\*CLASSIFICATION GAME - GENERAL** \$25.00  
**Gemini Software**

Establishes a list of questions, and sets of answers, to enable students to identify mystery items, be they chemicals, countries or foods.

**\*THE CONVICTS ABSCONDED** \$3 + disk for members, \$5 + disk for non members  
**N.S.W. Computer Education Group**

The Convicts Absconded and The Convict Physical Features data bases were based on data from the Quarterly Return of Absconded Convicts in the Colony of NSW. The Convicts Absconded data base contains 11 fields for each record and provides general information on the convicts, including details about their time in Australia. Fields include: Year of Arrival in Australia, Trade, Native Place, From Whom Escaped and From Where Escaped. An additional data base, Convict Ships, accompanied the main data base.

**\*THE CONVICT PHYSICAL FEATURES** \$3 + disk for members, \$5 + disk for non members  
**N.S.W. Computer Education Group**

The Convict Physical Features data base contains fifteen fields for each record and is concerned with the physical appearance of the convicts. Each of the data bases was formed using the Teacher's Database by John Messing. Each data base requires 64K. An accompanying handbook is also provided.

**\*CRIME AND SOCIETY** \$70.00  
**Prologic**

A database to enable the student to study the changing nature of crime and comparisons of rates of crime across categories such as sex or age. The data consists of detailed information on some seventy crimes for the years 1960, 1970 and 1983 and was obtained from the Victoria Police Statistical Review of Crime. This program would be suitable for History, Social Studies, Legal Studies or Womens' Studies.

**DATA PURSUITS:** \$44.95**Grolier**

Data Pursuits allows students to explore information contained in a database. The design and ease-of-use of this database makes it ideal for use by young students. Information stored is on:

**Countries of the World** - gives students a globe-full of relevant material for geography and social studies covering areas, population, continents, languages and religions.

**The Great Book Search** - covers 187 best-loved books covering title, author, subject area, main characters and setting.

**DINOSAUR DIG** \$59.95  
**Edusoft**

This database program contains information specific to dinosaurs, the times and places where they lived. Students can explore the database to help compare or research facts on dinosaurs.

**\*THE DREAM MACHINE** \$70.00  
**Prologic**

This database includes details of over fifty different makes of car and their registrations in each state over the period 1960 to 1983.

**\*EXPLORERS DATABASE** \$110.00  
**Know ware**

This program contains information and data on more than 500 journeys made by over 1000 early Australian explorers, places and events. This extensively researched historical database comes with two disks, user manual and worksheets and extracts from original sources.

**FACTFILE** \$54.95  
**Edusoft**

The Factfile package has been prepared for 7 to 13 year olds, but it can be used by older children. The package contains a disk with the following two programs and a datafile.

**Yourfacts**; a short program introducing ideas of collecting, ordering and retrieving information.

**Factfile:** the main database program which can be loaded with information on any topic such as football teams, receipts or racing cars.

**Dino:** a specimen datafile on dinosaurs and prehistoric reptiles. This is a stock of information on dinosaurs already organised and ready for loading. The package also contains a teachers handbook which gives step by step instructions on loading the programs, using and storing them, and advice and suggestions on their use in the curriculum.

The Factfile package is designed to familiarise children with the ability of a computer to store and categorise large amounts of information, that is, a computers ability to act as a database. (Apple II/IIe)

#### FAMOUS SCIENTISTS \$49.95

##### Dataflow

This challenging program encourages students to learn about famous men and women who have made major contributions to the field of science. Students buy information until they can discover the identity of the scientists. Information is kept on 50 scientists on the disk. Single or multiple user.

#### FRIENDLY FILES \$14.95

##### Grolier

Datadisks for Grolier's database, "Friendly Filer". The files contain general and specific facts on:

**Science and Nature** - basic knowledge of animals, insects, the earth, the solar system, etc.

**Trivia Hit Parade** - Oscar winners, hit records, best seller and Olympic records.

#### \*THE FIRST FLEET DATABASE \$35.00

##### Tasmania Media System

Contains data about the convicts who arrived with the First Fleet in 1788. The contents of the package include the disk, 32 student worksheets, 1 hard-copy print-out of the data and 1 teacher's guide.

#### \*HOMETOWN \$110.00

##### Active Learning Systems

Hometown allows students to store and analyse information collected in field surveys. The database has 9 open fields which enable students to include information of special interest to them. The activities involved in the use of this package include: sampling, collecting and recording data, collating information, problem solving, graphing, interviewing, map reading, interpreting results, discussion and debating.

#### \*HOUNDS AND HISTORY \$70.00

##### Prologic

The dog registration records from a municipal council in 1885 provide the data for this package. There is information about the breed, colour, sex and age of each registered dog, as well as the owner's name and place of residence. This package is suitable for local history, geography, social studies and computer awareness.

#### HOW CAN I FIND IT IF I DON'T KNOW WHAT I'M LOOKING FOR? \$79.95

##### Edsoft

This program has been designed to help students identify and locate specific books, facts or other needed information in a library. The programs' questions format leads the student through a series of branching operations to explore the resources of the library. A Change Option will allow individual schools to customise the program to include books currently in their own library.

#### MICROZINE 1, 4 & 6 \$49.95 each

##### Ashtron Software

Each of these Microzine volumes contains a simple filing program. In **Microzine 1**, the program is called Secret Files which can be used to organise any information. In **Microzine 4**, Log It keeps track of sport scores, marks etc. In **Volume 6**, Olympic Mail contains some Olympic details and these may be added to or amended.

#### \*ONE WORLD DATABASE \$110.00

##### Active Learning Systems

A database of demographic, political and economic information about every country in the world. It allows the user to search and analyse the database according to criteria selected. It teaches research and data interpretation in the fields of geography, social science and current affairs. Documentation includes teachers' notes, student worksheets and step-by-step operating instructions.

#### SCHOLASTICS PFS: DATAFILES

##### Ashtron

\$100.00

These datafiles require PFS: FILE to operate, they are a collection of data on:

**Life Science** - two disks containing three data files on Animals, Animal Biological Systems and Drugs.

**Physical Sciences** - two disks containing three data files on Chemical Elements, Common Substances and Chemical Tests. The activities sheets require students to build their own data files on Glues and Adhesives, Stains and Solvents and Real Life.

**World Geography** - (to be released Nov 86)

#### \*WHAT CHEMICAL IS THAT? \$70.00

##### Prologic

An inorganic chemical database that allows students to take experimental results and analyse and identify the target chemical. Over 140 chemicals are included. The computer can select the chemical and the student must identify it using skills learnt in the laboratory.

#### \*WHAT'S IN A NAME \$70.00

##### Prologic

This program contains information from the birth notices in "The Age" in 1920, 1940, 1960 and 1980. Data is recorded by year, sex and name, so students can retrieve general information such as the most common female name. The guide includes worksheets with a variety of exercises, as well as operating instructions.

## 8. ECONOMICS and COMMERCE

### ACCOUNTING: AN INTRODUCTORY PERSPECTIVE

Pitman \$34.95

This package illustrates some of the accounting applications of a computer, and it highlights how a computer could be used in business.

### ACCOUNTS I/ACCOUNTS II \$49.50 each

#### Heinemann

Two programs which give practice in introductory accounting including double entry bookkeeping to trial balance preparation of balance sheets and profit and loss accounts. Accounts I is designed to reinforce and clarify the procedures involved in keeping accounts, while Accounts II is a simulation in which the user assumes the role of a small wholesaler.

### BASIC MACROECONOMIC MODELS

Pitman \$69.95

This diskette contains three programs aimed to improve students' understanding of basic macroeconomic concepts and to introduce the first principles of macroeconomic policy making.

### (BECOME A) BARON \$74.95

#### Edusoft

This program is a simulation of a real estate firm. Each player tries their luck and skill in amazing a personal empire and fortune while combating fluctuating mortgage rates and vandalism.

### \*THE BOOKKEEPER'S FRIEND \$85.00

#### Computer Programs Machines & Services

A cash book which is easy to use and fully menu driven. It supports profit and loss balance sheets, allows the entry of receipts and expenses to produce trading profit and loss balance sheets and provides a variable chart of accounts. A useful program both for administration and for economics/commerce students.

### BIZNES \$95.00

#### Science Education Resources

This simulation of a business helps students understand the economic theory of the firm. Students enter basic decisions about capital, labour, and price. The program reports the results of these decisions - how much the business will produce, how much it will sell, and whether or not it will make a profit. Economic reasoning is emphasised as are the three main constraints in business: the demand curve, production function and supply of resources. A workbook and manual are included.

### CIRCULAR FLOW OF INCOME \$65.00

#### Science Education Resources

This program involves a 'moving blackboard' exercise to introduce, stage-by-stage the circular flow of income.

### \*COMDOC \$49.95

#### Pitman

This program will teach students how to handle a number of common commercial documents: order forms, invoices, delivery notes, credit notes and statements. Included are teachers's and student's guides.

### COMPETITION, MERGERS & CONTROL OF MONOPOLY

Science Education Resources \$65.00

A game to illustrate pressure towards collusion and merger in a competitive industry.

### COMPUTER APPLICATIONS PROJECT

Addison Wesley \$75.00

The four programs included in the Computer Applications Project show how computers are used in our society and cover four applications: Airline Reservations, Personal Banking, Supermarket Stock Control and Taking a Census. A student book provides background information, exercises and sample questions for each of the applications. Each package contains four student books, a teacher's guide and two diskettes (a master and backup). Extra student books in packs of 5 are available.

### \*DEBTORS \$35.00

#### Angle Park Computing Centre

A package including student exercises to introduce business education students to the concepts and procedures involved in using an electronic debtors ledger.

### \*DEVELOPING LIVING SKILLS

Prologic \$70.00

This simulation game takes individuals or groups of students through the experience of living independently for one year. They work and carry out social activities, by making decisions from random choices prompted by the computer. At the end of the period they can assess their financial and social status. The aim is to survive financially for a year while facing all the temptations, tribulations and rewards present in real life.

### ECONOMICS: WHAT, HOW AND FOR WHOM

Edusoft \$259.95

This series of five programs cover the laws and traditions of economics, a comparison of traditional, market, and command economies, the differences between capitalism, communism, and socialism and includes a Teacher's Classroom Demonstration Module.

### EDUCATION CLASSICS \$35.00

#### Apple Computer

Lemonade, one of seven programs on this double sided diskette, is a business simulation game that combines math drills with business acumen. The player tries to make profits each day from his or her lemonade stand by estimating the number of glasses that will be sold, setting the price per glass, forecasting the cost of material and advertising and anticipating the effect on sales of changes in the weather.

**ESSENTIALS OF ACCOUNTING \$189.00**  
**Edusoft**  
 This program is a teach-yourself style program. Learn how to run a business through a self paced accounting course. The program demonstrates the basic concepts from balance sheets to income statements to financial statement analysis.

**FREE ENTERPRISE \$150.00**  
**S.R.A.**  
 Free enterprise is a business simulation in which the participants run companies making the same type of product. Up to six individuals or teams can participate. Or one or more participants can interact with computer players simulating competition among up to six companies. Each company may sell its product in its own geographic home area, in the home areas of its competitors, and in a common market area equally accessible to all. The measure of success can be stock price, overall profit, or some other agreed-upon criterion. There are three levels of difficulty making it suitable for beginners and remaining a challenge for experienced players. Some variables may be set by participants or a teacher and the results can be saved and recalled if competition continues from day to day.

**\*INDEX \$30.00**  
**Angle Park Computing Centre**  
 An economics simulation allowing the user to produce price indices and compare them to a user selected base index.

**INTRODUCTION TO MICROECONOMICS \$150.00**  
**Pitman**  
 This package follows the text of the same name. It consists of 8 self-testing programs, 8 simulations, a student text and teacher's notes.

**MILLIONAIRE \$74.95**  
**Edusoft**  
 A simulation of a stock market. Buy and sell stock in 15 different companies listed. Teaches the difference between CALL and PUT options. by trial and error.

**THE MONEY MANAGER \$119.95**  
**Edusoft**  
 Learn budgeting, banking services, credit, insurance and consumer purchases. A student workbook is available for \$15.00.

**MONEY TOOL \$69.95**  
**Pitman**  
 Gives complete reporting of your spending habits. It allows allocation of funds for fixed, and semi-fixed expenses and determines how much is left. It will also balance a cheque book, maintain a budget, provide reports of all financial activities and give information necessary for tax.

**\*PAYROLL \$35.00**  
**Angle Park Computing Centre**  
 This package is similar to the debtors package and is useful to illustrate the process and concepts involved in electronic payroll functions.

**\*PLAN \$30.00**  
**Angle Park Computing Centre**  
 An economics simulation involving the principles of a planned economy. The user manipulates labour, capital and land to produce a maximum output economy.

**SEASEN SMALL BUSINESS ACCOUNTING SYSTEM \$30.00**  
**Seasen Software**  
 This package contains the aspects of computer accounting most needed for conducting a small business, including entry of information about transactions, printouts of balance sheets and details of past transactions, bank reconciliation and budgeting. The Single Entry system is simplified

**SEASEN SINGLE ENTRY ACCOUNTING SYSTEM \$18.00**  
**Seasen Software**  
 This package contains the aspects of computer accounting most needed for conducting a small business, including entry of information about transactions, printouts of balance sheets and details of past transactions, bank reconciliation and budgeting. The Single Entry system is simplified

**SIXGAM \$75.00**  
**Pitman**  
 This package tests a student's understanding of the concepts of fixed and variable costs, demand curves, cost and profit based pricing etc. It includes a tutors guide, program notes, a student guide and result sheets.

**\*SMART- THE CASH COMPUTER \$150.00**  
**Campbell Software**  
 The cash computer provides an easy to use system for managing a small business. It provides functions to control stock on hand, individual items sold, re-order levels, banking summary, debtors statements, calculates change and keeps track of cash, cheques, cards and change.

**SOLE TRADER ACCOUNTS \$120.00**  
**Pitman**  
 The student is able to prepare the final accounts of a sole trader by randomly generating trial balances and adjustments. Notes on the packages use are included.

**SOUTH DAKOTA \$63.00**  
**Micro Nationwide**  
 This simulation, based on a grain growing farm, provides an easy to use simulation for students from year 5 onwards. It highlights the problems faced by small businesses, the application of mathematics and how economic theory works. The user controls the crop to be planted, the number of helpers to be hired, the amount of seed purchased and the type of livestock to be purchased, if any. Finance can be from the sale of land, bank loans or sale of crops. The cost of land fluctuates and money is needed to clothe and feed the family. Taxes are also collected based on what is earned from the harvest.

**TRAINS \$49.95**  
**Edusoft**  
 A program to learn the principles of running a business. As the owner of a railway empire you must make deliveries, pay wages and expenses and still show a profit..

**TYCOON \$74.95**  
**Edusoft**  
 Outmaneuver the commodities market. Charts give you the background to aid in spotting opportunities amid actual commodity price trends of the past.

**WAGE THEORY \$65.00**  
**Science Education Resources**  
 This program looks at the theory of marginal revenue productivity of wages and how it applies to the market.

**THE WHATSIT CORPORATION \$69.95**  
**Edusoft**  
 Working together in groups, students make initial decisions about the need for a market survey, expert help, bank loans, and the type of franchise to buy. Using mathematical models and good business sense, they then move on to operating decisions - sizes of sales force, amount of inventory, repayment of loans, product price and advertising. Students keep records and must also contend with unexpected problems such as late shipments and supply shortages. (Apple II, IIe, IIc)

**YOUR PERSONAL NET WORTH \$119.95**  
**Edusoft**  
 This program encourages students to manage and create a budget for a family.. This involves students experimenting with a persons income, expenses, investments, and personal property.

**9. FOREIGN LANGUAGES****APFELSCHUSS \$49.95****Edsoft**

Increase your vocab and shoot an arrow through an apple. Learn words in categories such as house, school, professions, etc. A text file allows you to enter new words.

**BATAILLE DE MOTS \$79.95****Edsoft**

An exciting two-disk vocabulary program that teaches hundreds of words and includes a fast action arcade game. A word display gives meanings and sample sentences for adjectives, nouns and verbs in six categories. Multiple-choice and sentence completion quizzes reinforce usage of words, and the game challenges students to find translations in a race against time. The program contains colour graphics, optional sound effects and a text editor that allows you to enter your own material.

**LES BATISSEURS D'EMPIRE \$64.95****Edsoft**

A Science adventure/fantasy using colour graphics, animation and sound effects. The name of the game is to colonize a planet. Your students are equipped with special skills to survive. Send your class into outer space and enrich its French vocabulary. Includes bilingual manual.

**LA CARTE DE FRANCE \$79.95****Edsoft**

Explore the various regions of France with this engaging colourful program. The geography, history industry and culture of each region are briefly explained, and the location of each region is colourfully highlighted on a map of France. A quiz follows each section, and a final exam reviews the whole program. The printed documentation includes vocabulary list and all the answers.

**LES CHEMINS DE LOUISE-ETIENNE \$79.95****Edsoft**

A combination book and software game package that emphasizes writing, spelling and syllabification skills. The beautiful illustrated book contains simply text drawn from the home, the school, the playground, and country settings, that introduce new vocabulary. During the game, a rabbit chases after individual syllables which are travelling through an elaborate maze. The object is to catch the various syllables in order to form the key word illustrated in the corner of the screen. The program consists of the illustrated book, an instructor guide, a user instruction booklet, and the disk.

**CHERCHEZ LA DIFFERENCE \$44.95****Edsoft**

This package reinforces reading comprehension as it builds vocab. Students select the one word in four that does not belong to particular category. Over 2000 words.

**CLOZEMASTER FRENCH & GERMAN****Edsoft \$59.95**

This version of Clozemaker has on screen instruction in English but allows the teacher and learner to type in French accented characters. French texts can be typed in by teachers and gaps restored by students using correct French. A special keyboard diagram is supplied with the Apple II, IIe versions.

**COMPUTER RABBIT \$69.95****Edusoft**

Available in French, Spanish and German this program teaches and reinforces basic vocabulary skills for food, animals and clothing, through the use of pictures.

**COMPRENEZ/REPONDEZ \$49.95****Heinemann**

These programs provide structured drill and practice in verb formation. The COMPRENEZ programs present sets of multiple-choice comprehension questions which give practice in translation from French into English. The level of difficulty and type of verb may be set by the user. The REPONDEZ programs test the pupil's knowledge of the present tense by the translations from English into French. These programs are intended for pupils in the first years of a French course, but their applications extend to revision and practice for less able pupils up to their final year.

**CULTURE POKER \$69.95****Edsoft**

A culture game based on Poker. Students are dealt 7 topics chosen at random from 14 subjects covering hundreds of questions on vocabulary, grammar, culture and history. Students pick either easy or hard questions with multiple-choice answers. The program can be used as a game, tutorial or quiz. The Spanish version contains questions from the AATSP Exam and the German from the AATG Exam.

**DASHER \$215.00****Science Education Resources**

Dasher allows the creation of language drills for elementary and intermediate students. Dancer, a second program included in the package, allows the teacher to readily create the drills. The teacher supplies the questions and answers and certain specifics about the drill, such as instructions, messages and examples. The teacher can also specify special characters, such as punctuation, considered important in a student's answer; choose whether or not missing punctuation and capitalisation are to be considered errors; specify a limited number of alternate correct answers; and specify whether or not the student must completely retype an incorrect answer. Although the typical format for a drill is full-sentence question and answer, other formats are possible, including fill in the blank, transformations, scrambled sentences, sentence construction, and vocabulary review. The package contains the user guide and four diskettes containing the programs, character sets and text materials needed to create exercises in English, French, German and Spanish.

**DEUTSCHE GRAMMATIK "DER-DIE-DAS"**

**Edsoft \$55.95**  
Reviews the use of the nominative, accusative and dative cases, the decision of the definite article and prepositions.

**\*EDUCATIONAL GAMES PACK #1**

**Passionfruit \$60.00**  
Vocabulary Tester is one of five programs on this disk for junior secondary. The program tests knowledge of foreign words in two player game. Data files for French and German are included but teachers can easily create their own data files. The other four programs on this disk are based on directed numbers, coordinate geometry, Pythagoras' Theorem and equations.

**FRENCH ACHIEVEMENT I**

**Edsoft \$59.95**  
From a bank of over 150 problems and a 600 plus word dictionary this program provides practice in vocabulary format. The student is given a sentence with a word omitted. From a choice of four options, s/he must select the appropriate word. In addition to an English translation of the original sentence, the student can see an explanation of each option. S/he also receives encouraging remarks in French to indicate progress. After a batch of twenty problems, the student is given an Achievement score and a list of the words missing in their dictionary form with their English meanings. Other features of the program include: full instructions in this format, full French character set, including upper and lower case and punctuation, ability to skip a problem and return to it later, an option to have the problem chosen randomly or to move sequentially through the data bank.

**FRENCH ACHIEVEMENT II**

**Edsoft \$59.95**  
From a bank of almost 200 problems, this program provides practice in grammar format. Each problem comprises a statement in French, one portion of which has been identified as replaceable. From the four options that follow, the student must select the one that when substituted make a complete and meaningful new sentence. At the beginning of each session, a student may select problems, according to category (pronoun usage, verbal idioms, subjunctive...) or s/he may have the problems presented randomly. At the end of each session a full analysis is presented which includes; number right on first try, number right on second try, number wrong, number skipped, as well as a breakdown in terms of grammar category.

**FRENCH ACHIEVEMENT III**

**Edsoft \$59.95**  
Each problem consists of a sentence with one section omitted and highlighted. The student must select one of four options that does not fill the sentence grammatically. The program's extensive data base contains 1800 multiple choice problems arranged in fourteen categories in grammar. At the beginning of each session, a student may choose to have problems from specific grammar categories or have problems presented randomly. At the end of each session, students receive a full error analysis including number right on the first try, number right on second

try, number wrong, and number omitted. A breakdown of errors by grammar topic is also provided. The data base is so extensive that the disk can be used as a testing device.

**THE FRENCH GAME**

**Lindbrook \$75 or \$95 with backup**  
A high resolution motor car race designed to help beginning to advanced French students build their vocabulary. The package contains about 1000 French words and uses upper and lower case with accent marks. A teacher utility is provided for deleting high scores, listing words and changing questions. High scores are recorded and a choice of easy, medium or hard words is available to the user.

**\*FRENCH/GERMAN TUTOR**

**Lothlorien \$75.00 each**  
The French Tutor and the German Tutor provide an excellent medium for the presentation of new vocabulary, and the drill and revision of old lists of words. New material may be added to the extensive lists provided with the program, using the editor. Lists can be of any length desired, though short lists are recommended for introducing vocabulary and grammatical exercises. This lists can be later "merged", using the built-in facility provided, for test purposes.

**GAPFIL**

**Pitman \$240.00**  
GAPFIL allows teachers to generate a range of vocabulary and grammar tests. The content and level of material is controlled by the teacher. DISK 1 contains the programs to enter exercise data for seven different patterns of gap-filling exercises. DISK 2 stores the exercise data entered via DISK 1, formats the data into exercises and holds the index program. DISK 3 stores student responses and score records. The pack includes documentation for both the teacher and student. There are character sets in English, French, German, Spanish, Italian and Scandinavian. A dual disk drive is required.

**\*GERMAN**

**Tag Software \$40.00**  
A software package to help students learn German vocabulary. An easy-to-use program that features presentation, practice, mastery exercises and games. The package contains two diskettes, each with 10 comprehensive vocabulary topics, one teacher manual and reproducible test sheets to help measure student progress. The author will assist or advise teachers interested in developing these programs to suit their needs. The package includes two diskettes and the user's manual.

**\*VOCABULARY PROMOTER**

**Tag Software \$25.00**  
This program allows teachers and students to write their own lists of words and to use these lists in the Master Program. The Master Program features the presentation and practice of the new vocabulary list and mastery exercises. The package includes one diskette containing the Vocabulary Promoter and the Master Program and a user's manual. It is suitable for use in German, Indonesian, French and Italian.

**\*GERMAN: THE DEFINITE ARTICLE**

**Zenith Education Systems \$29.95**  
The diskette is suitable for students up to year 10. It covers the definite article, classification, analysis and grammar.

**LA GUILLOTINE**

**Edsoft \$49.95**  
Spell the word correctly and the victim smiles with relief. Spell it incorrectly, and its off with its head! An entertaining way to study hundreds of words, presented by topic on two levels of difficulty. A vocabulary review and matching exercise are included for each category. Superb graphics. The program has colour, music, and a text file enabling you to enter your own words.

**HEBREW WORD PROCESSOR**

**Jewish Software \$475.00**  
**Mailsoft \$29.00**  
A wide range of software covering Jewish history, festivals and Hebrew for adults and children. Prices range from \$29.95 to \$119.50. Mailsoft also handles a Hebrew version of Screen Writer II for \$475.00.

**HOMOPHONES**

**Edusoft \$99.95**  
A program for learning and reviewing French homonyms for words as *cette, dans, mes, on, ou*, etc. Useful hints are given. A text editor allows you to add your own material.

**IN SEARCH OF THE MOST AMAZING THING**

**Imagineering \$64.95**  
Your uncle, Smoke Bailey will help you on your search together with a B-liner, a cross between a hot-air balloon and a dune buggy. First you need to learn to fly the B-liner and navigate through storms and fog. The program encourages problem-solving through trial and error, sharpens your ability to estimate, predict, manipulate numerical quantities and enhances awareness of distances, directions and time. Available in French, Spanish and German.

**INTRODUCTION TO LATIN VOCABULARY 1**

**Edusoft \$69.95**  
Teaches and drills Latin words, cognates, numbers, Roman numerals and includes an editor enabling you to add your own words and tests. Program may be printed.

**INTRODUCTION TO LATIN VOCABULARY 11**

**Edusoft \$69.95**  
Teaches familiar phrases, endings, medical and mathematical Latin, and about Roman home and life.

**ITALIAN, FRENCH, GERMAN, SPANISH**

**Godfrey Deane \$67.50**  
The courses are designed for those interested in acquiring a basic knowledge of a language. Each course consists of 10 sections each containing 35-40 words and basic grammar. An audio tape is included to assist with correct pronunciation of the words in each section. A course starts with a vocabulary of animals as animals are easy to image and help the new learner get "into" the course quickly. Animals also allows the

early use of activity verbs, such as the dog sees, the cat waits, etc. Also animal words are often the same or similar in English and many foreign languages, making the density of learning less, and allowing individuals to build up confidence rapidly in their ability to acquire words in foreign language. After the first section, the vocabulary covers such items as furniture, colours, food, telling the time, leisure and travelling.

**LE JEU GUINNESS DES RECORDS**

**Edsoft \$69.95**  
A colourful and challenging game based on the popular Guinness Book of World Records. Two players compete to answer question in 10 categories, including sports, history, science, culture and leisure. The player can choose the level of difficulty as well as counter any challenges by his opponent. A fun way to reinforce reading skills. Entirely in French, contains high resolution graphics.

**KIDWRITER**

**Edsoft \$64.95**  
Create a picture, then write a story to go with it! This program enables beginning students to create colourful scenerio. You select from 100 characters and objects to compose a story in the target language. Picture story pages may be linked together and saved to create your own storybook. A unique way to encourage simple composition in the target language and develop vocabulary skills. Available in French, German and Italian.

**THE LINGUIST**

**Edusoft \$69.95**  
An interactive language translation program that enables the user to be drilled on words, phrases and definitions in French, Spanish, German, English, Russian, Hebrew, Japanese and any of thirteen other languages.

**MASTERMATCH**

**Edusoft \$64.95**  
Compete with the computer or a partner as this quiz show invites you to find logical matches in images and words under numbered mystery squares. Players use visual memory, factual knowledge and reasoning skills to win points. The authoring system may be used to create lessons using pictures, concepts and words. Features: combined pictures and words to aid visual learning. An additional subject diskette - foreign languages (\$21.95) - has examples in Spanish, French, German and Japanese.

**MOTS CROISES ET MOT SECRET**

**Edsoft \$45.00**  
Hundreds of French crossword games to help students build their vocabularies. The player asks for clues to try to fill in the puzzle. Also includes secret word games that are equally valuable for increasing vocabulary and spelling practice. The computer keeps score of all answers, adding and subtracting points. Vocabulary list and bilingual manual included.

**MYSTERY HOUSE**

\$44.95

**Edsoft**

Danger and excitement await your students in this mysterious house where a murderer seeks the next victim. Its up to the player to discover who the murderer is by using the correct French commands to find clues and secret passages. The player must run for his life - a strong motivator for learning French! The program contains an official printed list of commands used. Colour graphics are used extensively in the entertaining and challenging game.

**QUESTIONMASTER FRENCH and GERMAN****Edsoft** \$59.95

This program but allows access to French accepted characters on screen, as well as many of the features of a program called English Questionmaster, described elsewhere.

**SNOOPER TROOPS**

\$69.95

**Edsoft**

Develop vocabulary and reasoning skills with these mystery games. Case 1: in the German version you are a private detective trying to determine who or what committed the crime. You must question the suspects and remember the correct passwords and clues. Case 2: in the French program, your mission is to find the culprit who absconded with Lily the Dolphin.

**STORYBOARD FRENCH and GERMAN****Edsoft** \$59.95

This version of Storyboard has on screen instruction in English but allows the teacher and learner to type in French accented characters. French texts can be typed in by teachers and rebuilt by students using correct French. A special keyboard diagram is supplied with the Apple II, IIe versions.

**LE TEMPLE D'APSHAI**

\$84.95

**Edsoft**

A fantasy role-playing game with high resolution colour graphics and screen instructions in French. Adventure awaits you as you explore the magical temple with its monsters and hidden treasures. A highly interactive simulation game that will reinforce grammar, sentence structure and the cadence of the language. Bilingual manual included.

**TYPEWRITER**

\$110.00

**Edusoft**

A MULTI-LINGUAL word processor which is easy to use and includes lower case display with no additional hardware. Special character sets for Danish, English, Finnish, French, German, Hawaiian, Hungarian, Italian, Norwegian, Spanish and Swedish. Write letters, reports or any type of text using the special letters for the languages included. Insert, delete or change characters, words, lines or paragraphs. Search for and replace words, phrases, etc. Print text to your exact specifications with almost any printer.

**WORTGEFECHT**

\$79.95

**Edsoft**

A 2 disk vocab program that includes an arcade game. A word display gives meanings and sample sentences. Usage of words is reinforced by quizzes. A text editor allows you to enter your own material.

**BACK HOME**

\$69.95

**Edsoft**

An ESL package consisting of a cassette, 2 disks and a book containing a variety of classroom activities. Disk 1 allows the students to access the words of 12 songs for Cloze practice. On disk 2 there is a choice between Storyboard and Dictation. Storyboard dictates the whole text of the verse selected by the user, who then attempts to reconstruct the whole verse by listening to a cassette, guessing words and using various help functions. With Dictation the user types out the verse while listening to the tape and the computer only accepts the right version.

**ESL PICTURE GRAMMAR**

\$99.95

**Edsoft**

Students create sentences with this visually interactive program. The student is shown a picture of a subject and an object and is told which verb tense to use in order to create a sentence with all three elements. Comes with a 30 page manual.

**10. GENERIC PACKAGES****CERTIFICATE MAKER**

\$79.95

**Dataflow**

Certificate Maker allows a user to create a certificate for printing in a very easy and straight forward way. With many designs already available teachers or students can insert the relevant information or design their very own certificate. Like Newsroom, Certificate Maker come with a graphics library and labs to do the creating, designing and printing of the certificate.

**CROSSWORD MAGIC: TEACHER EDITION****Ashtron** \$69.95

Crossword Magic allows the user to create custom designed crossword puzzles on screen and print them. You choose the words and clues then the computer automatically places them in a matrix. Supports most printers including Apple ImageWriter, Scribe, Dot Matrix, Epson, and Gemini.

**CRYPTOCUBE**

\$43.95

**Edusoft**

A family word game with 50 four-sided puzzles with vocabulary levels for ages 8 to adult. Puzzles may also be created using the editor.

**\*DIRECT HELPER**

\$329.00

**Dataflow**

A major package for remedial reading and spelling developed in Australia. It includes four programs for student use: Word Reading (SAY), Story Reading (STORY), Spelling (SPELL) and Advanced Spelling (HIDE AND SPELL).

**FACT & FICTION TOOL KIT**

\$59.95

**Ashtron Software**

This package includes two programs "Story Maker" and "Secret Filer". The "Secret Filer" is an easy to use filing system. Files are limited to five categories and may be sorted alphabetically, using any category. Searches must be exact.

**\*GAPMAKER...GAPTAKER**

\$70.00

**Prologic**

The program allows students and teachers to create Cloze reading passages for use in other subject areas or by other students. The program comes with a simple text editor allowing the user to decide which words, phrases, sentence, letters or paragraphs to hide.

**INFORMATION MANAGEMENT PACKAGE****Gemini Software** \$45.00

A simple, data management package, which will enable the teacher or student to establish their own data bases.

**LUCKY'S MAGIC HAT**

\$63.95

**McGraw-Hill**

A fun game of finding the pot of gold at the end of the rainbow. Students must first answer correctly questions given by Lucky the Leprechaun. Lucky shows a picture and/or a story, then disappears under his hat while a magic scroll provides clues to help students test their factual knowledge.

The program incorporates a simple authoring system to allow teachers to create their own datadisks.

Additional datadisks on science and maths are available at \$35.15 each.

**MASTERMATCH**

\$49.95

**Edusoft**

Compete with the computer or a partner as this quiz show invites you to find logical matches in images and words under numbered mystery squares. Players use visual memory, factual knowledge and reasoning skills to win points. Use the authoring system to create your own lesson using pictures, concepts and words. Features: combined pictures and words aid visual learning. Memory is enhanced whilst learning vocabulary and concepts. Flexible teaching strategy is adaptable to any subject area. Additional subject diskettes are available for \$21.95 in BASIC SKILLS (6 to 9 years), SCIENCE AND MATH (6 to 9 years), MATH AND SOCIAL STUDIES (9 to 11 years) and FOREIGN LANGUAGES Spanish, French, German and Japanese.

**NEWSROOM**

\$79.95

**Dataflow**

This package allows students to design, produce and print posters, newspapers, newsletters and handouts for clubs, classes, family, school and church groups. It supports the keyboard, joystick, mouse and Koala Pad and works on an Apple II+, IIe or IIc. The program has 6 different sections: Photo Lab, Layout, Copy Board, Banner, Press and Wire Service.

The Photo Lab is used to create and use pictures in banner and panel designs. The copy board allows text to be placed with a picture to create a panel. The Banner is used to create stylish heading for the job. While the layout section bring together the whole job before going to the press. The wire service can be very useful for sending copies to other areas by means of electronic mail.

Newsroom has its own library of graphics that can be placed and edited called Clip Art. Additional graphics disk are listed under GRAPHICS in this directory.

**PRINTMASTER**

\$79.95

**Dataflow**

This program combines graphics and text in any arrangement to create attractive, well designed and professional looking products. PrintMaster will allow you to mix different fonts on any page, with upper and lower case as well as preview your work before you print it out. The program comes with a calendar creator and a utility to setup your printer.

PrintMaster has its own library of graphics that can be placed and edited called ArtGallery I for \$45.

**PRINT SHOP**

\$74.95

**Imagineering**

This package allows students to write, design and print cards, signs, stationary and banners. It supports the keyboard, joystick and Koala Pad and works on an Apple II+, IIe or IIc. Their are eight type styles in a variety of sizes and formats.

Print Shop Companion and Print Shop Graphics Library listed under GRAPHICS in this directory.

**RAIN MAKER** \$75.00  
Nelson  
This program allows teachers to make up their own lists of words for students to match up in the game.

**SPELL IT** \$79.95  
Edusoft  
A spelling program that concentrates on the 2000 most commonly misspelled words. Teachers may create their own lists.

**SPELLAGRAPH** \$49.95  
Edusoft  
Practice spelling and work out word picture puzzles. New word lists may be created.

**SPELLAKAZAM** \$49.95  
Edusoft  
This program has multiple skill levels, comes with 400 words divided into different grade levels. Students compete with the magician to release hidden animals as the words are revealed.

**SPELLDIVER** \$49.95  
Ashtron Software  
A word guessing game in which thousands of words are stored on disk from simple five-letter words to ten-letter words.

**SPELLICOPTER** \$49.95  
Edusoft  
A word spelling game with 400 words in 40 lists. Several levels of play are included and teachers may insert their own word lists.

**TIC TAC SHOW Program Disk** \$49.95  
Datadisk \$29.95  
Edusoft

This animated quiz show interacts with 1 or 2 players of any age as the program entertains, motivates and teaches. Comes with lessons in 14 subjects from Myths to Math. Use the authoring system to write lessons - no computer knowledge needed. Additional Subject Diskettes at \$21.95 include: FUN WITH FACTS 1: (4 to 7 years) Language, Math and Social Studies, FUN WITH FACTS 11: (6 to 9 years) Language, Math and Social Studies, HISTORY: (9 to adult), YOUNG EXPLORER: (4 to 7 years) and FOREIGN LANGUAGE Q & A (all ages) Hundreds of subject questions in foreign languages featuring Spanish, French and German.

**WIZARD OF WORDS** \$63.95  
McGraw-Hill  
Five educational word games carefully designed to build spelling and vocabulary skills for any subject area. Unscramble words juggled by a jolly jester, guess the letters to complete words before the castle gates shut, unravel the magic crossword pattern devised by a princess, discover the secret word on the herald's tapestry and help the dragon to make many little words from one big word. The program comes with thousands of words already to play.

The mini-authoring system allows teachers to modify the game to correlate to the curriculum.

**WORD ATTACK Program Disk** \$67.95  
Data disk \$29.95  
Edusoft

The program includes 675 words with meanings and sentences illustrating their use on 9 levels of difficulty. Activities include multiple-choice quizzes, sentence completion exercises and an arcade game. Teachers may create new disks and add words for their individual needs.

**WORD SEARCH** \$29.95  
Dataflow  
A series of words are entered to create a seek-a-word exercise. The computer creates the exercise according to the specifications of the teacher. Words can be overlapped, backwards and diagonal, top to bottom. An answer key can also be printed.

## 11. GEOGRAPHY

**\*AUSTRALIA, A PROFILE** \$110.00  
Active Learning Systems

This package allows students to compare different regions in Australia. The data provides a comprehensive source of statistical information designed to encourage students to analyse information and to draw conclusions. The census information includes: population, population growth, age distribution, school leaving age, ethnic origin, income, housing, employment, industrial and agricultural activity.

**\*THE AUSTRALIAN GEOGRAPHY TUTOR** \$75.00  
Lothlorien Software

The Australian Geography Tutor is a map-oriented program designed to present material to students, to test their knowledge of newly presented material and to provide a merged listing to revise all material presented. Again the immediate, corrective feedback system is utilised so that students gain the maximum benefit in the minimum of time. Entry of new material is a very simple matter. The flashing cursor is moved to the appropriate position on the map, the computer records the co-ordinates, the information concerning the location is typed and the "return" key is pressed. The new information is then recorded on the target diskette and the flashing cursor prompts you for the next entry.

**\*BIRDS OF THE ANTARCTIC DATABASE** \$35.00  
Tasmania Media System

Contains a set of 636 observations of seabirds seen during an Australian National Antarctic Research Expedition voyage between November and December 1982. Students will be able to make hypotheses and then examine the evidence to test their validity. The package provides several different ways of presenting the information. Data may simply be displayed or be shown using one of three graphing options.

**\*BUSHRANGER DATABASE** \$95.00  
Know ware

Provides not only direct data about the bushrangers, but also ballads and a dictionary capability so students can check the meaning of unknown words in the ballad. It is well supported with worksheets and will provide a valuable resource for schools.

**CLIMATE** \$75.00  
Heinemann

Climate recognition is an essential part of middle-school geography but a topic which pupils often find tedious to practise. This program will make the necessary reinforcement much more attractive, particularly through its imaginative use of graphics. Suitable for 14-16 age group.

**CLIMOGRAPHS** \$69.95  
Edusoft

This database includes 102 sets of world-wide climatic data, work sheets for all levels. Data is presented in graphical and tabulated form. You can add your own climatic data and do both altitudinal and latitudinal searches.

**COMPUTERS IN THE CURRICULUM PROJECT GEOGRAPHY** \$49.95 each  
Pitman

To provide students, through games, with an appreciation of decision making in the real world. The students' handling of bulk material from which geographical interpretations will be made is enhanced by the computer's accuracy and speed. These programs provide a variety of role-playing simulations. Each pack includes a Teacher's Booklet and Students' Leaflets.

- a) **MOTORWAY ROUTE**  
A unit on the impact of decisions upon route planning.
- b) **MALTHUS**  
A Malthusian model to examine population dynamics in relation to food and energy resource supplies.
- c) **SAILING SHIPS GAME**  
A navigation exercise related to the world's wind belts and their seasonal movement.
- d) **PREDICTING JOURNEY PATTERNS**  
A chance to examine the impact of gravity models on a variety of students' chosen locations and attraction ratios.
- e) **FARM RESOURCES GAMES**  
A farm game whereby the students plan crop production in the light of their seasonal manpower requirements.
- f) **HILL RAILWAYS**  
A chance to relate the building of Victorian railways to a consideration of shape and gradient.
- g) **RICE FARMING**  
A game whereby students can act as Indian farmers planning for the maximum use of land with factors such as High Yield Rice, Wells, Fertilisers and Pesticide.
- h) **WATER ON THE LAND**  
An exercise simulating the flows and stores of water on an area of land after rainfall.
- i) **PROSPECTING GAME**  
A chance to act as prospecting companies exploring and mining in an underdeveloped area with mineral potential.
- j) **URBAN GROWTH SIMULATION**  
An exercise that allows the student to predict, retrospectively, the growth of a market town, and its likely spatial features.
- k) **URBAN WELFARE**  
This program provides the 1981 UK Census data and enables students to analyse the criteria and effectiveness of establishing urban deprivation.

**\*CUNNING RUNNING** \$45.00  
Jacaranda Wiley

Up to four primary students at a time may practise the basic skills of reading and understanding map language, understanding compass directions, and using alphanumeric grid-square references.

- DATA PURSUITS** \$44.95  
**Grolier**  
 Data Pursuits allows students to explore information contained in a database. The design and ease-of-use of this database makes it ideal for use by young students. Information stores available are:  
**Countries of the World** - gives students a globe-ful of relevant material for geography and social studies covering areas, population, continents, languages and religions.
- \*DEMOGRAPHICS** \$125.00  
**Science Education Resources**  
 Population growth and change. Starting with population data for 1980 from 40 different countries including Australia you can examine age range graphs. You can project into the future and the computer will calculate the changing population profile based on the 1980 data and given fertility and mortality rates and show the results in graphical form. You can change the fertility and mortality rates and study the effect on population change. Teacher Notes and Student Activity sheets included. Applicable for use in many curriculum areas and can be used to give clear and dramatic demonstration of population changes.
- THE GAME SHOW** \$64.95  
**Edusoft**  
 An educational tool for vocabulary development, this entertaining computer game uses animated color graphics with the appearance of a TV game show. Varied subjects - biology to famous cities to nursery rhymes to advanced vocabulary and more. An easy to use authoring system allows you to add your own subjects. Lessons in 15 subject areas are included with the package. An additional data disk called PEOPLE, PLACES AND THINGS is available for \$21.95.
- GEOGRAPHY - ORIGINAL PACK** \$92.50 for 7  
**Pitman**
- FARM GAME:**  
 A simple crop-planting game.
  - SOUTH-EASTERN RAILWAY GAME:**  
 A simulation of the building of rival railways in historical times in SE England.
  - JOINT STOCK COMPANIES:**  
 A simulation involving five rival companies sailing cargo vessels in the seventeenth century.
  - WINDMILL GAME:**  
 The siting of windmills to grind wheat on an island simulating a weight-loss industry.
  - DRAINAGE BASIN MORPHOMETRY:**  
 This program calculates Bifurcations Ratio, Drainage Density and Constant of Channel Maintenance; and creates graphs drawn on the relationship between stream order, number of streams and their average length.
  - HUMAN POPULATION GROWTH:**  
 Calculates the future size of population and examines details of change within the population pyramid.
  - STATISTICS FOR GEOGRAPHERS:**  
 presents an analysis of geographical data.

- \*GEOLOGICAL HISTORY** \$70.00  
**Prologic**  
 This simulation allows students to investigate, create and solve the geological history of land masses, explore the processes of deposition, folding, faulting, extrusions and erosion which form a geological cross section.
- \*GEOLOGISTS AT WORKS** \$70.00  
**Prologic**  
 Students are able to investigate, create and solve geological searches for natural resources using techniques used by Geologists.
- \*GOLD-DUST ISLAND** \$49.00  
**Jacaranda Wiley**  
 A group of 2 or 5 players, survivors from a shipwreck must try to make life on Gold-Dust Island both safe and successful. Each player's activity on the island is determined by the tools he or she has, in addition to the expectation that a cyclone or a rescue ship may arrive. Players must ensure a good water supply and decide to either concentrate on boat building or gold digging. If a cyclone arrives, players will only be "saved" if they can escape in the boat they have built. However, if a rescue ship arrives, it will save all players who have not died from dehydration. In Gold-Dust Island, "survival" is entirely in the hands of those playing; players must cooperate if they are to be successful. A strategy must be planned, using the various skills of the players for the benefit of all. Therefore, Gold-Dust Island can be played many times, even by the same group of students.
- \*HOMETOWN** \$110.00  
**Active Learning Systems**  
 This package allows students to store and analyse information collected in field surveys. The database has 9 open fields which enable students to include information of special interest. The activities involved in the use of this package include: sampling, collecting and recording data, collating information, problem solving, graphing, interviewing, map reading, interpreting results, discussion and debating.
- \*INTRODUCTION TO WEATHER CHARTS**  
**Zenith Education Systems** \$29.95  
 This program covers weather charts, air masses, pressure zones and synoptic charts and refers directly to Australia.
- \*ISLE OF WHAT** \$50.00  
**Edusoft**  
 This is a simulation/role-play program that illustrates the purposes and procedures of land capability assessment, land management and land use decision making. It is appropriate for geography and environmental studies from year 9 to 12.
- MAP READING** \$49.95  
**Edusoft**  
 Incorporates the concept of direction and distance using the compass and scale reading.

- MASTERMATCH** \$64.95  
**Edusoft**  
 Compete with the computer or a partner as this quiz show invites you to find logical matches in images and words under numbered mystery squares. Players use visual memory, factual knowledge and reasoning skill to win points. Use the authoring system to create your own lesson using pictures, concepts and words. Features: combined pictures and words aid visual learning. Memory is enhanced whilst learning vocabulary and concepts. Flexible teaching strategy is adaptable to any subject area. An additional data disk called MATH AND SOCIAL STUDIES is available for \$21.95
- OIL RIG** \$55.00  
**Science Education Resources**  
 A simulation of a search for oil and natural gas. The student uses seismic data to map underground rock layers and to identify two common types of oil traps. Realistic geological history and master sheets necessary for mapping and exploration are provided in the Teacher Guide.
- \*ONE WORLD DATA BASE** \$110.00  
**Active Learning Systems**  
 A computer reference file of socio-economic information on the countries of our world. Designed specifically for use by upper primary and secondary school students, the package is specifically designed to teach research and interpretative skill, and encourages students to draw conclusions through comparative analysis. The database contains up-to-the-minute information from reputable non-government and government sources, accurate to January, 1984. The scope of information in the database covers: Climatic Information, Economic Details, Import/Export, Political Conditions, Geographic Neighbours, Currency, Percentage Workforce in Manufacturing, Percentage Workforce in Services, Percentage Workforce in Primary Industry, Main Languages, Religions, Population Details, Main Trading Commodities, General Workforce Statistics, Political Background, Main Population Centres, Percentage Population Urban, Physical Area, Percentage Forest, Percentage Desert, Literacy Rates, Treaties and Alliances and Much More.
- POPULATION FLUCTUATIONS** \$69.95  
**Edusoft**  
 Introduction to terminology and factors related to the study of population dynamics. Allows investigation into population changes over time by changing variables. Program can be printed.
- \*QUICK CARTAGE COMPANY** \$45.00  
**Jacaranda Wiley**  
 Quick Cartage Company provides drivers and vehicles for the picking-up and delivery of goods to various sites in the city and local areas. Up to four students are the drivers, and they must plan their route for their daily delivery run by choosing vehicles appropriate to the task required and the distance to be travelled. Several different-scale maps need to be consulted. Drivers must plan their routes carefully, and cope with a number of factors such as flat tyres and petrol consumption. Quick Cartage Company provides an

opportunity for students to develop the skill of understanding and using scales. Also, as drivers, they are expected to obey basic road rules and avoid inviting calamity by reckless overtaking. Quick Cartage Company is related to the "How Big?" section of Moving Into Maps and is supported with a student's guide and a teacher's manual.

- \*RAFT AWAY RIVER** \$49.00  
**Jacaranda Wiley**  
 This is an adventure simulation that provides students with an opportunity to develop skills in reading comprehension, communication, co-operative behaviour and problem-solving. From two to six players work to survive by fishing, collecting food and wood for the fire.
- \*SCAVENGER HUNT** \$35.00  
**Jacaranda Wiley**  
 Up to four players set out on a scavenger hunt in which each must find five objects located on the colourful computer display. In moving their stick figures about, students must negotiate certain obstacles. For example, figures can't go through a fence except by a gate, and there is a creek which can't be crossed except by a bridge. Scavenger Hunt provided an opportunity for students to apply the basic mapping skills of: identifying and using the eight major compass points, and estimating distance. Students must plan a strategy and there is plenty of opportunity to develop problem-solving skills. Scavenger Hunt is related to the "Lost and Found" section of Moving into Maps and is supported with a student's guide and a teacher's manual.
- SCHOLASTIC : PFS - GEOGRAPHY**  
**Ashtron** \$100.00  
 This package requires the database PFS. Contains information on units on "The United Nations", and "World Cultures".
- THE SEARCH SERIES** \$384.00 each  
**McGraw-Hill**  
 These five outstanding simulations promote critical-thinking skill while teaching social studies and science content. Best of all, an entire class of students can simultaneously go on a Search. The diskette handles all record-keeping for the simulation. Each Search comes in a vinyl binder with a teacher's manual, 20 reorderable student handbooks, and a diskette.
- GEOGRAPHY SEARCH**  
 Puts groups of students on ancient ships searching for the New World. Through the computer, they navigate using the sun, ocean depth, climate, and trade winds.
  - GEOLOGY SEARCH**  
 Sends students off exploring for oil. As the computer "performs" geological tests, students learn about rocks, fossils, and underground structures in order to make decisions on drilling.
  - COMMUNITY SEARCH**  
 Sets students down in an ancient society forced to leave its ancestral home. They face choices about migration, occupations, trades, aggression, and building a palace.
  - ENERGY SEARCH**  
 Has students manage an energy factory and recreate the exciting steps taken in search of new energy sources.

e) **ARCHEOLOGICAL SEARCH**

Charges student research teams with the task of organizing the excavation of a newly discovered historical site. Students collect data and formulate theories about origins of the people who once lived there.

**\*SHEEP-DOG TRIAL** \$35.00

Jacaranda Wiley

Sheep-Dog Trial is a game for two, where students will be using alphanumeric grid square references. Each student controls a sheep dog and must send the dog out into the paddock to split five sheep from a mob of ten, and muster them into a pen. The "paddock" is a grid and the sheep are in grid squares. To muster the sheep, students must send their dog to a grid square next to a sheep. The aim is to muster sheep as quickly as possible. Allowing for the vagaries of sheep, this can be a fascinating and testing pastime! As well as providing a challenging grid-reference activity, Sheep-Dog Trial requires logical thinking and co-operative strategy planning if sheep are to be mustered quickly. Sheep-Dog Trial is related to the "Where is it?" section of Moving into Maps and is supported with a student's guide and a teacher's manual.

**SOUTH DAKOTA** \$63.00

Micro Nationwide

This program, based on a grain growing farm, provides an easy to use simulation for students from year 5 onwards. It highlights the problems faced by small businesses, the application of mathematics and how economic theory works. The user controls the crop to be planted, the number of helpers to be hired, the amount of seed purchased and the type of livestock to be purchased (if any). Finance can be from the sale of land, bank loans or sale of crops. The cost of land fluctuates and money is needed to clothe and feed the family. Taxes are also collected based on what you earn from the harvest.

**\*STANDING ROOM ONLY** \$70.00

Prologic

A flexible simulation using extensive graphics displays on human population growth. Students can experiment with data to model population trends. Experiments can be saved, printed, compared and replayed.

**STAR SEARCH** \$58.50

Science Education Resources

This program supposes the existence of a star base on PLUTO. The user searches the planets for the origin of a signal detected by a satellite scanner and in so doing learns about the various planets. Package contains Teacher Notes and Software.

**TELLSTAR** \$120.00

Ramware

An astronomy package allowing the user to study the stars in any section of the sky at any time of the year.

**TRAVELS WITH ZA-ZOOM-THE WORLD**

Edusoft

\$59.95

This program allows students to take the role of an explorer and by observations determine where in the world Za-Zoom the geography genie has placed them.

**VOLCANOES** \$79.95

Dataflow

A game of strategy and cooperation for two to four players suitable for high school students. The program illustrates how volcanologists study potentially active volcanoes. The object of the game is to accurately predict volcanic activity, warn the local inhabitants and stay within a budget. The game has a 'save' option so that players can continue a game at a later time. Maps of the volcanic area are provided. The package contains teacher notes and software on diskette.

**WEATHER** \$75.00

Heinemann

This program provides a bank of data in the form of synoptic charts which can be used to teach elementary meteorology. Data from weather stations (temperature, wind speed and direction, cloud cover, and weather conditions) may be displayed and their relationship with isobars and fronts (which may be super-imposed on the weather map) can be discussed. The weather system can be moved across the screen, allowing elementary ideas of weather forecasting to be introduced.

**\*WHERE ARE WE?** \$70.00

Prologic

Children move to eight locations on the screen, using the compass points and receive random information about what exists at these locations. From the clues they can: determine the type of area shown, name each location and draw a map of the area. The program also contains a blank framework so that children can plan their own map and write in clues for others to use. The teacher's manual provides various strategies and teaching activities.

**WHERE IN THE WORLD IS CARMEN SANDIEGO**

Edsoft

\$79.95

Explore the great cities of the world as you pursue master thieves. With the help of a copy of "World Almanac and Book of Facts" you become a seasoned detective and a knowledgeable world traveller.

**WORLD ATLAS ACTION** \$69.95

Dataflow

Maps and map games help students learn locations and important facts about the countries and regions of the world. 13 maps with corresponding facts are provided, or, any fact can be modified or new ones created.

**12. GRAPHICS****ADDITIONAL FONTS** \$28.50

Imagineering

Forty extra fonts for use with the "Complete Graphics System". Fonts are large and small, upper and lower case.

**ANIMATE** \$89.95

Imagineering

Animate is a double hi-res animation tool. The program includes pre-designed backgrounds or the user can design their own. Drawings from Dazzle Draw and Fantavision can be used. The program requires 128K, operates with a mouse, joystick, paddles or graphics tablet with pixel-by-pixel control.

**BEAGLE GRAPHICS** \$89.95

Imagineering

Beagle Graphics allows the user to create Double High Res graphics with a selection of sixteen colours and over two hundred mixes. All standard Applesoft functions including shape table supported. The use of icons make drawing, editing, cut and paste, and invert and fill function very easy. The package supports a joystick and mouse.

**CADAPPLE - ENTRY LEVEL** \$295.00

Quest International

This computer aided design package supports the mouse and the Apple Colour Plotter. It allows designs, plans and other graphic work to be easily designed, enlarged to allow detail to be inserted. It is a powerful Computer Aided Design package. An even more complex system called CAD APPLE is also available.

**CADAPPLE - FULL LEVEL** \$1425.00

Quest International

This professional version extends the capabilities of the system in terms of facilities and supports a wide range of peripherals, networking and speed up cards.

**CADTUTOR** \$49.95

Quest International

This is a comprehensive 400 page manual based on VersaCad and CADAPPLE. Each section of the manual handles one particular aspect of CAD and consists of a tutorial, a test and some practical worked examples

**CERTIFICATE MAKER** \$79.95

Dataflow

Certificate Maker allows a user to create a certificate for printing in a very easy and straight forward way. With many designs already available, teachers or students can insert the relevant information or design their very own certificate. Like Newsroom, Certificate Maker comes with a graphics library and labs to do the creating, designing and printing of the certificate.

**COLOURING SERIES I** \$49.95

Edsoft

It's a whole world of colourful geometric designs that are used with the Koala Pad.

**COMPLETE GRAPHICS SYSTEM** \$97.50

Imagineering

This includes a drawing module that allows a paddle or joystick to be used to draw on the Hi-Res screen. Options include automatic filling with over 100 blended colours, a paintbrush that turns the cursor into one of nine different size and shape brushes. A text module allows text to be placed anywhere on the screen. The 3-D module lets you create, view and manipulate 3-D objects. (Also supports the Graphics Tablet.)

**DAZZLE DRAW** \$74.95

Imagineering

Dazzle Draw is a free form graphics package which gives the user precise control over every dot on the Apple II Double Hi-Res screen. It has 16 colours, with a large variety of effects like various brushes, spray paint, flood fill, zoom, mirroring, different font and styles; and advanced editing with cut and paste.

**DELTA DRAWING** \$49.95

Ozisoft

This program allows one or more drawings to be open and nested one inside the other, it allows the user to build-up very complex designs.

**DIGI-SCAN** \$800.00

Tobor

Digi-scan is an optical scanning digitiser and printer for use with the Apple II and Apple IIe computers. It takes an image from hard copy such as drawings, photocopies, prints or photographs and places that image on either of the hi-res screens. The image can then be saved as a binary file. In addition to the digitising mode it can act as a conventional dot matrix printer. Digi-scan can digitise and transmit an image via a modem.

**DOUBLE-TAKE** \$54.95

Imagineering

This package allows the user to create, with ease a series of animated graphics step-by-step to give the final result, a cartoon type product.

**EZ-DRAW 3.3** \$67.50

Imagineering

This program emulates the Apple Graphics tablet. "Higher Text" is incorporated into the program.

**FANTAVISION** \$79.95

Imagineering

Fantavision is an animations package which allows the user to animate text and graphics with T.V. style special effects. Generate a self booting movie disk which will run indefinitely without stopping and up to an hour without repeating itself. Create graphic or text designs using a joystick, mouse or graphic tablet and the computer will make up sixty-four drawings automatically producing cell animation style movement or special effects.

**FRAME-UP** \$46.00

Science Education Resources

This program offers a slide projection utility for creating displays of intermixed Hi-Res, Low-Res and text frames.

**CREATE WITH GARFIELD** \$49.95  
**Dataflow/Bellbird Books**  
 Create your own Garfield comics, posters and labels with this new graphics program. The program include graphics of Jon, Odie, Arlene, Nermal, Pooky and of course Garfield.

**GIBSON LIGHT PEN** \$199.00  
**Imagineering**  
 This alternate input device turns a computer into an imaginary sheet of paper with the light pen being used like a pen to draw directly onto the screen. The system comes complete with 5 programs which allow the user to produce layout designs, technical illustrations, musical compositions and free hand drawings in full colour.

**GRAPHICS EXPANDER, Vol 1** \$54.95  
**Edsoft**  
 this is an additional product to "Print Shop" that expands the scope of its creative possibilities. Contains over 300 new graphics.

**THE GRAPHICS MAGICIAN** \$84.95  
**Imagineering**  
 An animation package consisting of a picture editor and shape table extender to allow programmers to design and store graphics files. Comes with a utility program to transfer binary files.

**KOALA PAD** \$169.00  
**Imagineering/Edsoft**  
 The Koala Pad is a small touch-sensitive tablet. A finger or the stylus provided may be used to draw on the pad and the picture is transferred to the computer screen. A good introduction to graphics. Several software programs are available to support the Koala Pad.

**KOALA GRAPHICS EXHIBITOR** \$55.95  
**Imagineering/Edsoft**  
 Koala Graphics exhibitor allows graphic designs created using the Koala Pad to be printed out using Apple Scribe, ImageWriter or other popular graphic printers.

**MAGIC PAINTBRUSH** \$59.95  
**Edusoft**  
 This simple graphics and drawing program allows the user to create hi-res pictures in over 100 different colours. The package come with a dozen clip art designs.

**MASTER CHART** \$78.95  
**Spectral Graphics Software**  
 This program allows the user to create perfect picture, pie or bar charts in 26 user-selectable styles, automatically scaled and labelled. The program consists of a Slide Projector, for automatic presentation, A Graphics Editor, to alter the charts and Graphics Print Routine that supports 34 different printers and over 50 different printer interfaces.

**MOUSE & MOUSEPAINT** \$140 for IIe  
 Apple Dealers \$98 for IIc  
 This package is a combination of hardware and software. The AppleMouse provides a simple way to

draw graphics on the screen. Options include text, free drawing, circles, squares, different colours, moving around on the screen and the ability to blow-up a display to alter finer details. The mouse is also utilised in some other graphics packages and educational software.

**MOVIE MAKER** \$69.95  
**E.C.P.**  
 This program allows the users to create very professional type animated graphic sequences like a cartoon.

**NEWSROOM** \$79.95  
**Dataflow**  
 This package allows students to design, produce and print posters, newspapers, newsletters and handouts for clubs, classes, family, school and church groups. It supports the keyboard, joystick, mouse and Koala Pad and works on an Apple II+, IIe or IIc. The program has 6 different section, **Photo Lab, Layout, Copy Board, Banner, Press and Wire Service.**  
 The Photo Lab is used to create and use pictures in banner and panel designs. The copy board allows text to be placed with a picture to create a panel. The Banner is used to create stylish heading for the job. While the layout section bring together the whole job before going to the press. The wire service can be very useful for sending copies to other areas by mean of electronic mail.

**NEWSROOM- Clip Art Collection Vol 1 & 2** \$39.95 ea  
**Dataflow**  
 These two disks contain over 600 pieces of graphics each of which can be used in Newsroom to personalise your designs. With a choice of over 1200 different graphics there is almost no category not represented in the collection.

**PAINT MASTER** \$60.00  
**Science Education Resources**  
 This graphics program allows you to draw lines, paint scenes and edit screen compositions.

**PIC. BUILDER** \$54.95  
**Edusoft**  
 Pic.Builder is a unique picture building program in which you build colour pictures with blocks, one block at a time - like a construction set. Blocks contain a wide assortment of sizes, shapes and colours from which you can easily build pictures of outer space, castles, farms, trucks - your own imaginative combinations. The possibilities are endless, a feature which means this program will keep kids coming back again and again.

**PLOTTER-SCANNER** \$370.30  
**Fishertechnik**  
 This package combines the possibilities of two graphics units in one model. The plotter supports graphics work on paper sizes up to A4. Two bipolar stepping motors give it positioning accuracy of better than 0.5mm. All the motor control software is written in BASIC. The scanner records and digitises a picture from its base into the computer.

**THE PROFESSIONAL SIGN MAKER** \$69.95  
**Edusoft**  
 The Professional Sign maker allows you to choose from a wide variety of print sizes. Signs may contain up to eight lines of text, each up to 79 characters long. Letters can be 1,2,4 and 8 inches high, allowing space for descenders. Various levels of shading are possible. Special characters allow a large variety of borders - hearts, circles, stars, checkerboards, and more!

This program is ideal for classroom signs, overhead transparencies, report covers and title pages, advertisements, home coming and sports banners, and much more. Signs may be saved on diskette and retrieved for later creation. (Apple II+,IIe,IIc)

**PRINTMASTER** \$79.95  
**Dataflow**  
 This program combines graphics and text in any arrangement to create attractive, well designed and professional looking products. PrintMaster will allow you to mix different fonts on any page, with upper and lower case as well as preview your work before you print it out. The program comes with a calendar creator and a utility to set up your printer. PrintMaster has its own library of graphics that can be placed and edited called ArtGallery I for \$45.

**PRINT SHOP** \$74.95  
**Imagineering**  
 The Print Shop enables you to write, design and print greeting cards, letterhead, signs and banners. The program is menu-driven and supports the joystick, Koala Pad or AppleMouse. Eight type styles in multiple sizes are available and lettering may be proportionally spaced or superimposed on any picture or design. Nine border designs, ten abstract patterns and dozens of pictures and symbols are provided. A graphics editor allows the creation of original logos or pictures. (Apple II+,IIe,IIc).

**PRINT SHOP COMPANION** \$69.95  
**Imagineering**  
 Print Shop Companion is an 'add on' package to the PRINT SHOP. It has 12 brand new font styles, 50 new borders, custom calendar design, the new font and border editors. Best of all it has a specially enhanced Graphic Editor which incorporates features like flood fill patterns, mirror imaging, inverting and flipping of graphics and mouse control.

**PRINT SHOP GRAPHIC LIBRARY, Vol 1 - 3** \$44.95each  
**Imagineering**  
 Disk # 1 includes 120 designs for holidays, special occasions, sports school, zodiac signs and animals. Disk # 2 includes 120 designs based around hobbies, jobs and people. Disk # 3 includes 120 business graphics, international symbols, mythological and fantastical images, and holiday graphics.

**PUZZLE MASTER** \$39.95  
**Science Education Resources**  
 Choose an exciting picture or graphics and divide it into 2 to 800 pieces and reconstruct the jigsaw.

**SCRIBE** \$130.00  
**Ramware**  
 A CAD package developed in the UK which is available at two levels. The first level, PRE-SCRIBE, is a self-contained menu-driven three-dimensional graphic modelling and drawing system. It will run on a 48K Apple II with a single disk drive. Other levels of the CAD system are also available.

**SPECIAL EFFECTS** \$56.50  
**Imagineering**  
 Paint with various brush sizes in 108 colours. Magnify picture to pixel level. Packs pictures to 70% of normal size. Will also reverse colours, flip pictures, mirror images and partial screen movements.

**STICKYBEAR PRINTER** \$54.95  
**Edusoft**  
 A new learning program for Apple Computer's New Colour Imagewriter II printer and Colour monitors.

Stickybear Printer is very easy to use and very friendly - yet is a sophisticated graphic design program. This versatile software program allows users to put their stamp of individuality on everything they create. With dozens of background and border patterns, hundreds of decorations, and ten fonts to choose from, user can custom-design pictures ...wrapping paper ...stationary ... banners... and cards.

Other capabilities of Sticky bear Printer allows users to print and illustrate their own books ... arrange data in chart form and even create three dimensional scenes. As a versatile print, dump program, Stickybear Printer allows users to load pictures made with other programs or to create original designs from scratch. Users get professional results instantly with Stickybear Printer.

**STORY MAKER - GRAPHICS** \$30.00  
**Ashtron**  
 This two disk set of graphics, one on a fantasy and the other on science fiction. These can only be used in the wordprocessor, Story Maker (see the Creative Writing Tools section).

**\*TASMAN TURTLE 2** \$350  
**Flexible Systems/Edsoft**  
 The Tasman Turtle 2 can be controlled by any personal computer. The robot is controlled by the computer via a powerful infra-red transmitter, thus allowing free access by the turtle to the floor. The turtle is powered by two specially sealed life long batteries. The robot can be programmed by LOGO, BASIC, PASCAL, FORTH or directly via machine language. The one computer can control more than one turtle.

**ZOOM GRAPHICS** \$56.50  
**Imagineering**  
 This is a graphics printing utility that allows the user to display pictures on the screen before printing. Also

**13. HISTORY****ARCHEOLOGICAL SEARCH \$180.00**  
McGraw-Hill

This program is part of the Search Series, involving problem-solving skill and application of many skills acquired in maths, science, and reading. The program requires students to organise and manage the excavation of an important historical site. Through the collection of data, students pose theories about the origins and lifestyle of a community from long ago.

**\*AUSTRALIA, A PROFILE \$110.00**  
Active Learning Systems

A package allowing students to compare different regions in Australia. The data provides a comprehensive source of statistical information designed to encourage students to analyse information and to draw conclusions. The census information includes: population, population growth, age distribution, school leaving age, ethnic origin, income, housing, employment, industrial and agricultural activity.

**\*BUSHRANGER DATABASE \$110.00**  
Know Ware

The Bushranger Data Base provides not only direct data about the bushrangers, but also ballads and a dictionary capability so that students can check the meaning of unknown words in the ballad. It is well supported with worksheets and will provide a valuable resource for schools.

**CAMPAIGN \$65.00**  
Science Education Resources

This program is based on Edward I's progress across France to the Battle of Crecy.

**CANAL BUILDING \$65.00**  
Science Education Resources

This program is based on competitive canal building across the Pennines.

**CENSUS ANALYSIS \$125.00**  
Science Education Resources

Analyse and interactively interrogate census data. New data files can be created.

**CHIVALRY \$79.95**  
Edusoft

1-4 players may take part in this fantasy board /computer game. 20 arcade style games hinder your quest to rescue the King. The package includes disk, board, playing pieces, poster and a user guide.

**CHOICE OR CHANCE \$199.00**  
Edusoft

Helps students recognise and understand the relationship between cause and effect of historical happenings as it relates to geography. Covers three periods in history; exploration and colonisation, expansion era and industrialization.

**\*THE CONVICTS ABSCONDED**  
\$3 + disk for members, \$5 + disk for non members  
N.S.W. Computer Education Group  
The Convicts Absconded and The Convict Physical Features data bases were based on data from the Quarterly Return of Absconded Convicts in the Colony of NSW. The Convicts Absconded data base contains 11 fields for each record and provides general information on the convicts, including details about their time in Australia. Fields include: Year of Arrival in Australia, Trade, Native Place, From Whom Escaped and From Where Escaped. An additional data base, Convict Ships, accompanies the main data base.

**\*THE CONVICT PHYSICAL FEATURES**  
\$3 + disk for members, \$5 + disk for non member  
N.S.W. Computer Education Group  
The Convict Physical Features data base contains fifteen fields for each record and is concerned with the physical appearance of the convicts. Each of the data bases was formed using the Teacher's Database by John Messing. Each data base requires 64K. An accompanying handbook is also provided.

**\*CRIME AND SOCIETY \$70.00**  
Prologic

A database to enable the student to study the changing nature of crime and comparisons of rates of crime across categories such as sex or age. The data consists of detailed information on some seventy crimes for the years 1960, 1970 and 1983 and was obtained from the Victoria Police Statistical Review of Crime. This program would be suitable for History, Social Studies, Legal Studies or Womens' Studies.

**COMMUNITY SEARCH \$180.00**  
McGraw-Hill

This program is part of the Search Series, involving problem-solving skill and application of many skills acquired in maths, science, and reading. An ancient society is forced to leave its ancestral home. Where will it go? How will it get there?

**DINOSAUR DIG \$59.95**  
Edusoft

This database program contains information specific to dinosaurs, the times and places where they lived. Students can explore the database to help compare or research facts on dinosaurs.

**DISRAELI \$65.00**  
Science Education Resources

This program is based on the decision-making policies of Disraeli and the Eastern Question of 1875-1878.

**\*DINOSAUR DISCOVERY \$85.00**  
Jacaranda Wiley

This program is designed to be the central component of a class's involvement in such activities as exploration, mapping, creative writing, art, library project and reading. The challenge is to find a fossilised dinosaur egg and eventually hatch it using a special incubator in a secret laboratory on a secluded island. Students are confronted with many problem which they have to solve to be successful. Conditions

change from game to game. The package includes an explorer's diary, black-line masters and a teachers guide.

**EXPEDITION TO SAQQARA \$54.95**

**Ashtron**

Based on the real archaeological site, the program simulates the search for and the excavation of a series of tombs. Includes "find" cards and teacher's notes.

**\*EXPLORERS DATABASE \$110.00**

**Know Ware**

This program contains information and data on more than 500 journeys made by over 1000 early Australian explorers, places and events. This extensively researched historical database comes with two disk, user manual and worksheets and extracts from original sources.

**FAMILY HISTORY/TREE \$99.95**

**Edusoft**

A genealogy program able to handle up to 900 individuals in any one family in a network structure. A powerful database, it allows a detailed personal history to be kept. Generate sophisticated reports in various formats.

**FAMOUS SCIENTISTS \$49.95**

**Dataflow**

This challenging program encourages students to learn about famous men and women who have made major contributions to the field of science. Students buy information until they can discover the identity of the scientists. Information is kept on 50 scientists on the disk. Single or multiple user.

**\*THE FIRST FLEET DATABASE \$35.00**

**Tasmania Media System**

Contains data about the convicts who arrived with the First Fleet in 1788. The contents of the package include the disk, 32 student worksheets, 1 hard-copy print-out of the data and 1 teacher's guide.

**\*GOLD DUST ISLAND \$49.00**

**Jacaranda**

This program provides an opportunity for students to compare cooperative and non-cooperative behaviour. It emphasises the need to share ideas and resources and is therefore suitable for social science courses.

**\*GOLDFIELDS \$65.00**

**Jacaranda**

This is a simulation that provides students with the chance to explore the lifestyles in the goldrushes of the nineteenth century. A printer is optional, and a set of black-line masters is included.

**\*HOMETOWN \$110.00**

**Active Learning Systems**

Hometown allows students to store and analyse information collected in field surveys. The database has 9 open fields which enable students to include information of special interest to them. The activities involved in the use of this package include: sampling, collecting and recording data, collating information, problem solving, graphing, interviewing, map reading, interpreting results, discussion and debating.

**\*HOUNDS AND HISTORY \$70.00**

**Prologic**

The dog registration records from a municipal council in 1885 provide the data for this package. There is information about the breed, colour, sex and age of each registered dog, as well as the owner's name and place of residence. This package is suitable for local history, geography, social studies and computer awareness.

**ISLAND: A DISCOVERY GAME \$49.95**

**Pitman**

The students carry out the role of an investigative team which explores an uninhabited and unknown island. From the evidence they uncover, the students are required to compile a possible history of the island.

**\*MEDIEVAL TOWN Public Domain**

**N.S.W.C.E.G.**

This is a historical simulation based in medieval times for the high school student.

**\*ONE WORLD DATABASE \$110.00**

**Active Learning Systems**

A database of demographic, political and economic information about every country in the world. It allows the user to search and analyse the database according to criteria selected. It teaches research and data interpretation in the fields of geography, social science and current affairs. Documentation includes teachers' notes, student worksheets and step-by-step operating instructions.

**THE OTHER SIDE \$99.00**

**HBS Internationals**

This program is a two team computer/board game with a peace and conflict theme. The game begins with the world in a state of scarce resources and sensitive national defense systems. Limited communications lead to misunderstandings. Only through co-operation and understanding can achieve the goal to build a bridge between the two nations.

**THE SEA VOYAGES \$64.95**

**Edusoft**

Chronicles the lives and historic discoveries of 30 New World explorers, from Balboa to Vespucci. Interactive activities help users learn historical facts.

**THE SEVEN CITIES OF GOLD \$64.95**

**Edusoft**

A historical simulation in the Age of Discovery, Exploration and Conquest (1492-1540) set in Spain. Over 2800 screens represent the worlds you'll explore building computer maps as you go. In the historical game you'll create an accurate map of the geography and populations of the 16th Century North, South and Central America. But the package will also allow you to face random continents.

**TORPEDO RUN \$64.95**

**Edusoft**

Command a hunter submarine in the South Pacific during the Second World War. Recreate the eight historical missions on disk.

**\*TRADE Public Domain**

**N.S.W.C.E.G.**

A historical simulation suitable for high school students. Many versions exist of this program, the NSWCEG has the latest official version.

**TREASURE HUNTER \$49.95**

**Grolier**

This program helps students to develop skills in researching facts and interpreting charts and maps. By using the explorer's log, players search the area gathering clues to piece together the treasure map.

**WESTERN CIVILISATION \$159.00**

**Edusoft**

Covers everything from ancient Greece, Rome and Medieval Europe, through the era of Martin Luther and European Nationalism in the late 1800's and up to events in the 20th century. Maps, histogram, learning games, lesson planner are included.

**\*WHAT'S IN A NAME \$70.00**

**Prologic**

This program contains information from the birth notices in "The Age" in 1920, 1940, 1960 and 1980. Data is recorded by year, sex and name, so students can retrieve general information such as the most common female name. The guide includes worksheets with a variety of exercises, as well as operating instructions.

**14. HOME ECONOMICS****\*CHOLESTROL** \$49.00**Science Education Resources**

This program incorporates a database of cholesterol content of over 250 Australian foods, including take-away foods. Users can check cholesterol content of a food and enter a diet for analysis. After entry, diets may be modified by adding or deleting food items. The user guide includes materials that cover aspects of blood cholesterol levels and good nutrition and provides a context in which the program can be used.

**\*DESIGNING AN ENERGY-EFFICIENT HOUSE****Prologic** \$70.00

This program allows students to design and construct a theoretical house, making decisions on materials to be utilized and location of the house. Assessment of energy requirements is then computed for student analysis.

**\*DEVELOPING LIVING SKILLS** \$70.00**Prologic**

This simulation takes an individual or group of students through the experiences of living independently for 1 year. The aim is to survive financially while facing the temptations and rewards present in real life.

**\*DIET ANALYSIS** \$40.00**Victorian Dept of Education**

The Diet Analysis program can be used to obtain information about the adequacy of their diet. It is aimed as an aid for teacher to make students aware of the nature of their diet rather than as a prescriptive analysis of their diet. Nutrients listed are protein, fat, carbohydrate, energy, calcium, phosphorous, iron, sodium, potassium, beta-carotene equivalent, retinol, thiamine, riboflavin, niacin and Vitamin C. To use the program you need to make a list of the foods and drinks that you have consumed. This data is entered along with some personal details. The program will give a graphical report and a list of the food groups that may supplement your diet where you have a deficiency.

**DREAM HOUSE** \$59.95**Edusoft**

This program allows the user to build differing styles of houses, adding rooms, changing floor plans, both from a plan or cut away view. Decorate rooms even add animated objects such as T.V., lounge, beds etc. Paint, wallpaper and choose light fittings.

**\*THE ENERGY PROGRAM** \$49.00**Science Education Resources**

This program contains a databank of 100 activities and Australian food items. The program calculates the energy required for each activity accorded to age, sex and weight of the person. The user must select food item and the number of servings for each. The program then compares the energy intake and compares it to the energy required for that activity.

**HI-RES INTERIOR DESIGN** \$86.00**Ramware**

Design the interior of a house using this Hi-Res graphics package. Use a printer to get a hard copy.

**HOME ENERGY CONSERVATION** \$89.95**Edusoft**

This program uses a spreadsheet technique to ask "what if" questions. The program is broken up into two parts.

Part 1: Home heating Audit-house specifications, climate and fuel are varied to observe conservation and cost effectiveness.

Part 2: Electricity and How Water - students must manipulate the appliance of wattage and water usage and determine the effects and efficiency of use patterns.

**MANAGING LIFESTYLES** \$79.95**Edusoft**

This program covers survival maths skills in three areas of daily life;

**The Calorie Counter** - students plan a day's meal appropriate to their individual calorie requirements. The computer then rates the menu plan.

**Comparison Shopping** - students have to buy a week's food supply of groceries within the tastes and budget of a family of four.

**Budget for success** - students make decisions about life after high school and then try to manage their living expenses.

**NUTRITION - A BALANCED DIET** \$59.95**Edusoft**

Interactive program that analyses nutritional quality and deficiency of dietary habits. The program can be used to allow students to investigate and formulate an "ideal diet".

**SURVIVAL MATHS** \$79.95**Edusoft**

This package covers four different simulations which all require the use of basic mathematics skills and the need for sound judgement. Simulations include, Smart Shopper Marathon - students try to figure out the best buys. Hot Dog Stand - students run a hot dog stall at a school football match to raise money. Travel Agent Contest - students plan a 7-day, 6-night trip without exceeding a prescribed spending limit. The last one being, Foreman's Assistant - students help plan a playroom and must purchase the material after taking all the necessary measurements.

**YOUR PERSONAL NET WORTH** \$119.95**Edusoft**

This program encourages students to manage and create a budget for a family. This involves students experimenting with a person's income, expenses, investments, and personal property.

**15. INDUSTRIAL ARTS****BIT STIK \$800.00**  
**Robocom**

Bit Stik is a hardware/software graphics system for a 64K Apple with 2 disk drives. The package includes a high-precision 3-axis joystick with 3 buttons which connects to the games I/O socket and is powered by the Apple. The software includes a complete, menu-driven picture creation utility which allows complex pictures to be drawn easily using the BIT STIK.

**CADAPPLE - ENTRY LEVEL \$295.00**  
**Quest International**

This computer aided design package supports the mouse and the Apple Colour Plotter. It allows designs, plans and other graphic work to be easily designed, enlarged to allow detail to be inserted. It is a powerful Computer Aided Design package.

**CADAPPLE - FULL LEVEL \$1425.00**  
**Quest International**

This professional version extends the capabilities of the system in terms of facilities and supports a wide range of peripherals, networking and speed up cards.

**COMPUTER KIT \$222.30**  
**Fishertechnik**

Introduces students to the use of a computer controlled robots and their role in our society. The Kit allows students to interface the computer with building block and motors to create different working models. These include a simple traffic light system, aerial rotators, teach-in robots, plotters and a solar-cell tracker.

**\*DESIGNING AN ENERGY-EFFICIENT HOUSE \$70.00**  
**Prologic**

This program allows students to design and construct a theoretical house, making decisions on materials to be utilized and location of the house. Assessment of energy requirements is then computed for student analysis.

**DIGI-SCAN \$800.00**  
**Tobor**

Digi-scan is an optical scanning digitiser and printer for use with the Apple II and Apple IIe computers. It takes an image from hard copy such as drawings, photocopies, prints or photographs and places that image on either of the hi-res screens. The image can then be saved as a binary file. In addition to the digitising mode it can act as a conventional dot matrix printer. Digi-scan can digitise and transmit an image via a modem.

**DREAM HOUSE \$59.95**  
**Edusoft**

This program allows the user to build differing styles of houses, adding rooms, changing floor plans, both from a plan or cut away view. Decorate rooms even add animated objects such as T.V., lounge, beds etc. Paint, wallpaper and choose light fittings.

**GIBSON LIGHT PEN \$199.00**  
**Imagineering**

This alternate input device turns a computer into an imaginary sheet of paper with the light pen being used like a pen to draw directly onto the screen. The system comes complete with 5 programs which allow the user to produce layout designs, technical illustrations, musical compositions and free hand drawings in full colour.

**KOALA PAD \$159.00**  
**Imagineering**

The Koala Pad is a small touch-sensitive tablet. A finger or the stylus provided may be used to draw on the pad and the picture is transferred to the computer screen. A good introduction to graphics. Several software programs are available to support the Koala Pad.

**KOALA GRAPHICS EXHIBITOR \$54.95**  
**Imagineering**

Koala Graphics exhibitor allows graphic designs created using the Koala Pad to be printed out using Apple Scribe, ImageWriter or other popular graphic printers.

**MOUSE & MOUSEPAINT \$195.00**  
**Apple Dealers**

This package is a combination of hardware and software. The AppleMouse provides a simple way to draw graphics on the screen. Options include text, free drawing, circles, squares, different colours, moving around on the screen and the ability to blow-up a display to alter finer details. The mouse is also utilised in some other graphics packages and educational software.

**PLOTTER-SCANNER \$370.30**  
**Fishertechnik**

This package combines the possibilities of two graphics units in one model. The plotter supports graphics work on paper sizes up to A4. Two bipolar stepping motors give it positioning accuracy of better than 0.5mm. All the motor control software is written in BASIC. The scanner records and digitises a picture from its base into the computer.

**ROBOT ARM \$410.30**  
**Fishertechnik**

This is a training robot arm that incorporates three axes of movement to work at any point with a payload up to 100g. The positioning system depends on three infra-red photo interrupters, achieving repeatability of 1mm. Further building instructions and software are included. All components of this kit as well as the other Fishertechnik products can all be combined together.

**SCRIBE \$130.00**  
**Ramware**

A CAD package developed in the UK which is available at two levels. The first level, PRE-SCRIBE, is a self-contained menu-driven three-dimensional graphic modelling and drawing system. It will run on a 48K Apple II with a single disk drive. Other levels of the CAD system are also available.

## 16. INFANT SCHOOLS

The programs listed have been chosen because they cover the following areas:

- Shape recognition
- Letter or number recognition
- Counting
- Simple Addition/Subtraction
- First letter sounds
- Simple words/sentences

Programs which rely heavily on a speed component which can not be slowed or those programs where the rules of the game can not be readily understood by this age group have been omitted. It is expected that a teacher or helper will guide the small child in at least the first use of the program. Additional programs can be found in the Section called "Teaching LOGO".

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**ADDITION MAGICIAN \$54.95**  
Edusoft

Players explore the concept of addition by building magic walls around groups of numbers, discovering that every number is just a combination of other numbers added together.

**ALIEN ADDITION \$49.95**  
Dataflow

This is an addition drill and is suitable from ages 6 and up. Students use a space theme to practice addition facts. Space ships dropping from the sky contain addition problems. If the correct answer is entered the space ship is destroyed.

**ALIEN ENCOUNTER/FACE FLASH \$55.95**  
Britannica

This package contains two programs on the diskette. The first of these, Alien Encounter, is for 4 to 6 year olds. Students match the number that appears on the screen with the number of aliens they land on earth. The second program, Face Flash, is for 4 to 8 year olds. Students must indicate how many faces have flashed. The flash time decreases with each correct response.

**ALPHA BUILD \$49.95**  
Edusoft

Teaches valuable pre-reading skills; letter recognition, upper and lower case discrimination, and word recognition.

**ALPHABET CIRCUS \$39.95**  
Dataflow

This diskette contains six programmes for 4 to 7 year olds. The first, Meet the Circus, allows children to press a letter key and a picture of a circus character, animal or article beginning with that letter appears. Lost Letter, the second program provides the picture and the child must press the beginning letter. Alphabet Parade, presents the letters in alphabetical order and when the music stops the child provides the next letter. Secret Letter is a guessing game for two players. Children take turns to guess the beginning letter of the object that the ringmaster has chosen. In the fifth

programme the juggler tosses a letter in the air and the child must press that key before the letter drops. The last program allows the child to spell names and create messages in big, colourful letters.

**ALPHABET ZOO \$49.95**  
Edusoft

Strengthen their letter recognition skills as they associate letters with the sounds they represent. Joystick required.

**ANIMAL PHOTO FUN \$39.95**  
Dataflow

Music, animation and colourful graphics combine to teach children about animals and their natural habitats. Six programs help children become familiar with the animals, select the odd animal out, match animals to their habitats, match the young to their mother and identify 3 animals from the same habitat.

**APPLE LOGO \$102.00**  
Apple Computer

Logo is a computer language developed especially for young children. With the use of simplified programs even five year olds can program the turtle, a small cybernetic animal on the screen. Logo program utilities which are freely available allow children to use logo to write in large lower case letters on the screen and then print out their work using a printer.

**APPLEMOUSE & MOUSEPAINT \$140.00IIe \$98.00IIc**  
Apple Computer

The combination of the AppleMouse and Mousepaint provides a simple introduction to the computer for children of all ages. The software allows children to readily draw on the screen and to include text in the display. The pictures formed may be printed on a dot matrix printer. Software for young children using the mouse is currently under development.

**BODY AWARENESS \$79.95**  
Edusoft

Three separate activities for teaching parts of the body. Program can print the particular activity under review.

**BOPPIES GREAT WORD CHASE \$39.95**  
Dataflow

This is a game of word recognition, word creation and spelling. There are 256 built in words though teachers may individualise lists. Students move Boppie around a maze, gathering letters in the correct order to spell out words. 8 levels.

**BUMBLE GAMES \$54.95**  
Ashtron Software

A set of six games for 4 to 10 year olds introducing the concept of number pairs for points on a grid.

**BUMBLE PLOT \$79.95**  
Ashtron Software

This is a set of five programs which build on the skills introduced in "Bumble Games". The program feature colour graphics, music and sound. Package consists of teaching materials, student activities and back-up disk.

- COMPARISON KITCHEN** \$39.95  
**Dataflow**  
 Lively music and colourful graphics help children learn how to compare and differentiate sizes, shapes and colours.
- COMPUTERGARTEN** \$59.95  
**Ashtron**  
 A computer awareness program incorporating the development of basic early childhood skills. As well as becoming more comfortable with the computer, children learn beginning reading, letter/number recognition, directions and colour identification. A workbook reinforces skills attained.
- COUNTERS** \$69.95  
**Edsoft**  
 Young students will enjoy counting the colourful, animated objects in this three-part program consisting of Counting, Addition, and Subtraction. Students gain a basic understanding of mathematics as they work through counting levels and proceed to simple addition and subtraction problems. Each response by the student results in immediate feedback - an exciting on-screen reward if correct, or step-by-step visual instruction if incorrect. Your students will find this lively program fun and easy to use. (Apple II,IIe,IIc).
- COUNTING BEE** \$39.95  
**Imagineering**  
 This program is for children 4 to 7 years old who are learning to count. Little counter can be easily modified to meet each student's needs and the program has a built in scoreboard to monitor a student's progress. Eight activities are included to explore counting, addition, subtraction, shape discrimination, comparing weights, water heights, moving circles and length comparison.
- COUNTING PLUS** \$59.00  
**Edusoft**  
 A program to help pre-school to primary children develop a knowledge of numbers and how to work with them. The program contains sixteen modules including counting, addition and addition with carrying.
- CREATURE CREATOR** \$43.95  
**Edusoft**  
 Built your own creature and make it dance. Select heads, bodies, arms and legs to create creatures - for 4 to 8 year olds.
- \*DECIDE YOUR DESTINY 1** \$49.50  
**C.A.R.E.**  
 This is a program to teach children to make decisions about factors that could affect the future outcomes in the game.
- DINOSAURS** \$39.95  
**McGraw-Hill**  
 Children match, sort and count creatures and animate them to perform different tasks.

**EARLY CHILDHOOD LEARNING PROGRAM**  
 \$34.95 each, \$149 for set of 5  
**Micro Nationwide**  
 Each of the five diskettes contains four activities. Activities include letter and numeral recognition, association of initial sound to a letter on the keyboard, making judgements, colour recognition, directionality, following directions, decision making, classification, symmetry, shape and size and spelling.

**EARLY GAMES FOR YOUNG CHILDREN**  
**Edusoft** \$39.95  
 A selection of programs for the 2 to six year old. The picture menu allows even small children to select their own game. They can match large numbers, count blocks, add/subtract stacks of blocks, match letters, learn the alphabet, type their own names, compare shapes and create pictures.

**EASY AS ABC** \$39.95  
**Dataflow**  
 A series of 5 games that make learning the alphabet fun. Includes animated graphics.

**\*EDUCATIONAL GAMES PACK #2**  
**Passionfruit Software** \$60.00  
 This diskette contains 5 programs and is menu driven with colour, graphics and sound. Concentration - is available in three size boards. Unscramble - tests spelling skills for one or two players (teachers may insert their own word lists. Processes Game - tests the four processes (teachers may select up to thirty different combinations). Solo Processes - as the previous program but for one player. Shape Counter - counting, addition and subtraction for the very young child.

**FACEMAKER** \$49.95  
**Edusoft**  
 The first game presents the child with a blank face and asks the child to complete it. The second takes the completed face and makes it smile, wink, frown, wriggle its ears or stick out its tongue. In the third game the child is asked to repeat a sequence of faces shown on the screen.

**FISH SCALES** \$39.95  
**Dataflow**  
 Six games with sound, high-quality graphics and animation. Shows how things are measured for height, length and distance, and how measurement is used to compare heights.

**FUN WITH DIRECTIONS** \$79.95  
**Edusoft**  
 Students learn that words are rows of letters, that letters must face a certain way and be in a given order. A colourfully animated program that may be printed.

**THE GAME SHOW** \$64.95  
**Edusoft**  
 This program is set-up like a TV game show. An easy to use authoring system allows you to add your own questions. Prewritten data disks are also available at \$21.95. Those suiting the infants environment are Win With Words II (6 to 9) and You and Your World (6 to 9).

**GERTRUDE'S PUZZLES** \$54.95  
**Ashtron Software**  
 Six different puzzle rooms for children of six and up. The games are aimed to develop reasoning skills. Puzzles are based on colour and shape patterns.

**GERTRUDE'S SECRETS** \$54.95  
**Ashtron Software**  
 A series of games (4 to 9) that help children to think logically while they play with colours and shapes. Players solve puzzles by arranging game pieces according to given rules or by guessing a secret rule.

**GETTING READY TO READ AND ADD**  
**Edusoft** \$79.95  
 Sound, colour and animation help even the youngest student identify and match shapes, upper- and lower-case letters and numbers in this series of programs designed to teach shape discrimination and letter and number recognition. In these inviting program, every correct answer generates an imaginative on-screen reward. Teachers can customise the programs to individual or classroom needs by controlling selection of numbers and letters. (Apple II,IIe,IIc)

**GRANDMA'S HOUSE** \$49.95  
**Edusoft**  
 A fun place to visit where children can create the perfect playhouse full of fun things. Helps teach design and creativity and promote familiarity with basic computer functions.

**JAR GAME/CHAOS** \$55.95  
**Britannica**  
 The first activity, Jar Game shows two jars filled with green and gold squares. Students have to select which jar should be chosen to have the best chance of getting a gold square. The students' task in Chaos is to match the shape and/or colour of the shape shown in the centre. The central shape changes every 50 seconds with a total time of 250 seconds to make as many matches as possible.

**JUGGLES' RAINBOW** \$39.95  
**Ashtron Software**  
 A series of games for 3 to 6 year olds. The first game is to discriminate between above and below and then between left and right. Children also work with lines and circles to help them learn the letters p,d,b and q.

**KIDWRITER** \$64.95  
**Imagineering**  
 Allows children to create their own storybook. Children start by choosing a colourful scene and then add characters and objects to complete the picture. Then children add their story which may continue from one page to another.

**LETTER RECOGNITION** \$29.95  
**Dataflow**  
 The child must find the letter displayed on the screen on the keyboard. Additional lessons require matching upper/lower case letters, digits and number words.

**LETTERS AND FIRST WORDS** \$57.95  
**Edusoft**  
 Uses graphics in three separate programs to help children learn to identify letters, recognize associated sounds, and begin to spell simple words. Uses upper and lower cases.  
 Arithmetic facts with a graphics "story".

**LOGIC BUILDERS** \$49.95  
**Ashtron**  
 This multi-level program is designed to improve memory skills, while students learn to recognise and duplicate patterns. Includes a student handbook, reference card, sketch pad and stickers.

**MAKE A MATCH** \$39.95  
**Dataflow**  
 Matching games for 2 to 6 year olds. These discrimination games involve colours, shapes, sizes and directions. Graphics and musical sounds are used to tell the children if their responses are right or wrong. Very easy operation.

**MASK PARADE** \$39.95  
**Dataflow**  
 This program allows children to design their own masks, hats, glasses, jewelry, badges, etc and then print them out and wear them.

**MASTERMATCH** \$64.95  
**Dataflow**  
 This quiz is based on a concentration game with from 6 to 30 hidden squares. The authoring system which allows teachers to produce their own data disks is easy to use and allows the entry of pictures. Additional data disks at \$21.95 include Basic Skills (6 to 9) and Science and Math (6 to 9).

**\*MATH INVADERS 1** \$40.00  
**Simon M & S**  
 This program has several different levels catering from the preschooler to remedial mathematics in the high school. The simplest version is counting the number of objects descending from the sky. If the answer entered is correct, the objects disappear, otherwise they continue to move down. Other levels include addition, subtraction, multiplication and division at a variety of difficulty levels.

**MATH MAZE** \$59.95  
**Edusoft**  
 Practice of mathematical facts for 6 to 11 year olds. Teachers or parents may insert their own questions with ease.

**MATH RUN** \$59.95  
**Edusoft**  
 Practice 4 mathematical operations individually or in combinations and race with time.

**MATHS REGROUPING GAMES** \$138.40  
**McGraw-Hill**  
 10 programs that use graphics to promote success with regrouping/renaming skills in addition and subtraction, help to diagnose areas of difficulty.

**MATHS SKILLS GAMES** \$138.40  
**McGraw-Hill**  
 Three skill levels in addition, subtraction, multiplication and division.

**MATHS WORD GAMES** \$89.80  
**McGraw-Hill**  
 6 programs that illustrate the problem to be solved and then the student determines the correct operation to be used and solves the problem.

**MECC - ELEMENTARY NO 7** \$27.00  
**Season Software**  
 Nine different programs are included on this disk. Caterpillar - upper case alphabet drill, Train - lower case alphabet drill, A is for Apple - drill on the initial letter, Pictures - a concentration game using pictures, Words - a concentration game using words, Shapes - a concentration game using shapes, Smile - a drill counting identical objects, Puzzle - counting identical objects in a mixed group, Spaceship - a drill on addition of identical objects.

**MINUS MISSION** \$54.95  
**Dataflow**  
 This provides practice in basic subtraction facts by letting players destroy blobs of slime with a firing robot. Each blob contains a subtraction question which is destroyed by firing the correct answer.

**MIX AND MATCH** \$30.00  
**Apple Computer**  
 One of the diskettes developed by the Children's Television Workshop containing four programs. The first Mix and Match allows children to pick a head, body and legs of the Sesame Street characters by choosing the appropriate number and then mixing them to produce a funny figure which it then names. Raise the Flags is a guess the word game where correct letters chosen are rewarded with a nod of the head and a flag raised in the appropriate position. Teachers may insert their own lists with this program.

**MIXED NUMBERS** \$79.95  
**Edusoft**  
 Program includes readiness skills, addition, subtraction, multiplication and division of whole numbers.

**MUPPET LEARNING KEYS KID'S COMPUTER KEYBOARD** \$149.00  
**Edusoft**  
 The Muppet Learning keys is a novel product that helps children between the ages of three and six learn letters, numbers, and colours with the assistance of the Muppets and their new computer keyboard. Muppet Learning keys simulates the familiar contents of the child's school desk - ruler, water colour set, penmanship slate, compass and arithmetic exercise book. Muppet Learning Keys include such features as the alphabet laid out in alphabetical order, the numbers 0-9, a Go key, Stop Key, Oops and Help keys, and Eraser key ... all in order and sequence that will relate to the child. The keyboard comes with a piece of software developed by Sunburst that allows the child to discover the keyboard and the relationship between the objects, the alphabet, numbers and colours. (Apple II, IIe, IIc)

**MUSIC MAESTRO** \$39.95  
**Dataflow**  
 Provides four games to allow children to learn about music. Firstly, they can create new tunes using the computer to record it and play it back. Secondly, memorise note names and keys of the piano. Thirdly, learn to perform melodies and lastly combine graphic designs with their music.

**MY VERY OWN CALENDAR** \$79.95  
**Edusoft**  
 Children learn days of the week, months of the year, weather and holidays as they create their very own calendars. Additional calendar questions and sequencing games reinforce learning. Automatic record keeping.

**\*NUMBER DETECTIVE** \$64.95  
**Spinifex/Edusoft**  
 A discovery learning program for 3 to 7 year olds. Children can count objects, add to the group, take away, line up the objects, scatter them and group them.

**NUMBER FARM** \$39.95  
**Dataflow**  
 This diskette contains six activities for 4 to 7 year olds to practice number skills. Number Farm explores the numbers from 1 to 9. Children match numerals and number words with colourful pictures. Hen House is a guessing game for two players. In Old MacDonald the children count the number of animals displayed and press the correct key. Animal Quacker challenges children to count the number of animal sounds they have heard and press the correct key. Horseshoes allows the player to determine how many horse shoes are thrown. Crop Count is a timed activity for one or more players. Win the game by quickly counting the fruits and vegetables.

**NUMBER STUMPER** \$54.95  
**Edusoft**  
 Every number is a winner when the dice is rolled to add or subtract. Players use cleverly animated dice to sharpen their basic maths skills and learn game-winning strategies.

**ODD ONE OUT** \$79.95  
**Edusoft**  
 Develop children's classification skills through 5 programs: Pictures, Words, Letters, Numbers and Math Problems.

**PAINT WITH WORDS** \$45.00  
**HBS International**  
 Children can create imaginative pictures as they expand their vocabularies. The program assists the learning of 110 basic sight words. The artwork may be saved on disk or printed.

**P.A.L.** \$34.95 each, \$65.00 for two  
**Micro Nationwide**  
 There are four programs on two diskettes, which are suitable for 5 to 6 year olds. They aim to develop math and reading readiness. A management system charts progress. The first disk contains copy cats (matching letters, numbers and symbols) and ABC for the Micro and Me (recognition of upper and lower case letters). The second disk contains First Numbers (matching equal amounts) and First Words (recognising word families).

**PHONICS** \$115.00  
**Science Research Associates**  
 A combination of computer programs and studio cassettes giving instruction and practice. Includes, initial and final consonants, short and long vowels, initial and final consonant blends, consonant and vowel digraphs and advanced phonics.

**\*PICK THE SHAPE** \$25.00  
**Angle Park Computing Centre**  
 A program involving shape recognition. The student matches a given shape with one of four shapes presented. A correct response raises a helicopter, an incorrect one lowers it. After five questions correctly answered a person parachutes from the helicopter.

**PIECE OF CAKE MATHS** \$39.95  
**Dataflow**  
 Designed to teach basics of elementary maths. 5 games lead children into a magical bakery where they learn to add, subtract, multiply and divide.

**POP'R SPELL** \$55.95  
**Britannica**  
 A "hang-man" type spelling game.

**PUZZLE MASTER** \$39.95  
**Dataflow**  
 Puzzle lovers will enjoy choosing from an assortment of existing pictures and dividing them up by cutting them into 2 to 800 pieces. Puzzles can be made easy or difficult. Pictures can be created by using powerful artistic tools.

**READER RABBIT** \$54.95  
**Ashtron Software**  
 A program for 5 to 7 year olds to develop reading and vocabulary skills.

**RHYMES AND RIDDLES** \$49.95  
**Edusoft**  
 This is a three-letter guessing game presented in three different formats: Jokes, Nursery Rhymes and Famous Sayings.

**\*SCAVENGER HUNT** \$35.00  
**Jacaranda Wiley**  
 Up to four players set out on a scavenger hunt. Each must find five objects. To move their stick figures students must negotiate obstacles. Students must use the eight major compass points for giving direction and then enter a distance.

**SEQUENCE/WHAT COMES NEXT** \$79.95  
**Edusoft**  
 Arrange short reading selections by topic and organise the groupings of paragraphs in proper sequential order.

**SHAPE AND COLOUR RODEO** \$39.95  
**Dataflow**  
 Six programmes for 4 to 7 year olds based on shapes and colours. Shape Roundup is a find the hidden shape game. Cowhand Brand is a game of shape matching played against the clock. Colour Mix and Match 1 is a game about colours and colour mixing. Colour Mix and Match 2 is a two player game based on mixing colours. Rope trick allows children to help the cowboy by selecting shapes and shape sequences. Rodeo Flags asks children to pick the odd one out - either in shape or colour.

**SNAKE-O-NYMS/WORDFLIP** \$55.95  
**Britannica**  
 The first game is one of synonyms and antonyms. The second, tests a child's visual memory and their knowledge of word endings and word structure.

**SPACE WASTE RACE** \$79.95  
**Edusoft**  
 A program for beginning readers that includes music and animation. Its humorous story about transporting waste to the moon entices students into five learning activities and games with imaginative themes such as Hole in the Moon. Students practice counting, number and letter order and identification, and confront concepts of direction. (Apple II, IIe, IIc)

**SPACESHIP LOST** \$59.00  
**Micro Nationwide**  
 This program is based on the work of Piaget and focuses on directional concepts both from the child's point of view and another's point of view. A reading age of grade one is assumed.

**SPELLICOPTER** \$43.95  
**Edusoft**  
 An action word spelling game with 400 words in 40 lists. The lists cover from first grade to adult but new lists may also be simply created.

**SPELLING BEE AND READING PRIMER** \$59.95  
**Edusoft**  
 Aims to build spelling skills, identify basic word groupings and link words to pictures. It includes two programs suitable for 3 to 7 year olds. Spelling Bee offers two activities. In the first the word/picture combination is shown on the screen, after the word disappears the learner attempts to spell it. The second asks children to match a word and picture. Reading primer display three objects and a single word. The child selects which object is correct. A management program is included to select word groupings, set the number and length of trials and review a learner's performance.

**SPELLING BEE GAMES** \$49.95  
**Imagineering**  
 Four games for 4 to 7 year olds to reinforce spelling, reading skills, and memory skills. 22 word lists are available which are the same as in Spelling Bee and Reading Primer.

**SQUARE PAIRS** \$39.95  
**Ashtron**  
 This package involves students powers of concentration while challenging them in almost any area of study. Students can create their own matching pairs. Includes a student handbook.

**STICKYBEAR ABC** \$59.95  
**Edusoft**  
 Children press letters of the alphabet and a word starting with that letter is displayed and an animated graphics picture is shown. Upper case letters are used in this programme. The package also includes a full colour book, poster and stickers.

**STICKYBEAR BEGINNING READING**

Edsoft \$59.95

A multi-level reading program designed to improve reading skills. There are more than 30 stories stored on the disk and a set of comprehension questions for each story. Your own stories and questions may be entered and the program has the ability to print out the stories and the answers.

**STICKYBEAR MATHS**

\$59.95

Edsoft

For every set of addition and subtraction problems that are answered correctly, Stickybear gets a step closer to getting out of a jam. The problems can be chosen at varying levels of difficulty and include horizontal or vertical setting-out, single digit to four digit problems with or without "carrying" and "borrowing". (Apple II, IIe, IIc)

**STICKYBEAR NUMBERS**

\$59.95

Edsoft

Fine Apple graphics enliven this number recognition and counting program for young children. The instructions for the program are simply PRESS ANY NUMBER. Each time the child presses a number key, an animated picture appears using the number of objects he or she has pressed, and displaying the number in the lower right-hand corner. Many pictures are possible; the program selects from objects such as cars, birds, penguins, trains, hats, ice creams, and balls. (Apple II, IIe, IIc)

**STICKYBEAR OPPOSITES**

\$59.95

Edsoft

This program reinforces opposites through the use of outstanding graphics. It includes such concepts as up/down, full/empty, in front/behind. It is designed especially for young children to use, requiring minimum keyboard and reading skills. (Apple II, IIe, IIc)

**STICKYBEAR SHAPES**

\$59.95

Edsoft

This package includes three games: Name a Shape, Pick a Shape, and Find a Shape. The user is required to match a shape with the identical shape in the picture. Correct responses make animated pictures come alive. (Apple II, IIe, IIc)

**STICKYBEAR SPELLGRABBER**

\$59.95

Edsoft

When one of more than 200 colourful pictures pops on the screen, the young learner sends our favorite bear on a search for the right letters... and score points if the answer is correct. The words are selected from the Weekly Reader and Ginn & Co. Lexicon. Additional word lists may be entered by parents, teachers and children. Program also works with mouse.

**STICKYBEAR TOWN BUILDER**

\$59.95

Edsoft

Map skills are an important part of today's school curriculum. Children build their own towns -- complete with roads, parks, bridges, airports, etc. -- and learn compass reading, directions, map-reading, positioning, and more. The fun comes in as youngsters follow clues in order to locate mystery keys hidden at random in the various structures.

**THE STORY MACHINE**

\$39.95

Edusoft

This program provides children with a limited vocabulary from which they may construct a story. As the story is entered by the student the action is shown on the screen in colour graphics. Stories may be replayed or saved on diskette for later use.

**SUBTRACTION MINUS**

\$59.00

Edusoft

Introduces subtraction and subtraction with borrowing.

**TALES FROM THE ARABIAN KNIGHTS**

Edusoft \$59.95

Enhance the child's reading comprehension, creative writing and language skills. Includes three stories with animated graphics and over 600 multiple-choice and fill-in reading and vocabulary questions.

**TEN LITTLE ROBOTS**

\$59.95

Ozisoft

This package consists of 5 different games, with multiple graphic rewards and tunes: Little Robot Story, Count The Robots, Robot Letter Match, Robot Addition and Robot Sketch.

**TIC TAC SHOW**

\$69.95

Edusoft

A game is based around noughts and crosses. To choose a square requires that a question is answered correctly. The authoring system is easy to operate and allows teachers to produce their own data disks. Data disks for the infants child at \$21.95 include: Fun with Facts I (4 to 7), Fun with Facts II (6 to 9) and Young Explorer (4 to 7).

**TIME CAPSULE/READING SKILLS**

Edusoft \$79.95

Players travel through time and answer questions that cover detailed aspects of reading. Lets you add your own stories. Automatic record keeping. Program output can be printed.

**\*WHAT'S THE TIME MR. WOLF**

\$30.00

C.A.R.E.

This is a program to teach children to tell the time. A time is displayed on the clock face and children select the correct answer from four answers displayed. There are five different levels in the program from hours, half hours to times involving minutes.

**WIZARD OF WORDS**

\$64.95

Edusoft

Includes five different learning activities based on a 20,000 word dictionary. Games include hangman, unjumble the word, finding words in a larger word, a crossword game and a mastermind style word game. Words and lessons can be added to any game.

**WORD SPINNER**

\$49.95

Edusoft

This program allows 6 to 10 year olds to build three and four letter words.

**17. KEYBOARDING****\*KEYBOARD SKILLS**

\$34.95

McGraw-Hill

The concise step-by-step format is designed to give students an introduction to keyboard techniques using typewriter, computer and calculator programs. The emphasis in all sections of the book and program is on keyboard operation by touch. Skill and confidence are developed in the early stages of keyboard familiarisation through the use of a typing drill and exercise program. Consists of a program and manual. Student Text \$9.95.

**\*KEYBOARDING**

Public Domain

Logic Shop

A program to instruct students on the use of the keyboard in a series of twenty-nine lessons. Each set of exercises must be completed three times correctly before the student is allowed to proceed to the next set. The order in which the new keys are introduced follows the order used in the document "Keyboard Skills" which is well known in Transition Education in N.S.W. After completing each group of lessons students work on a speed test. This program is easy to operate and could be used with pupils from grade five onwards.

**KEYBOARDING**

\$149.00

Micro Nationwide

This program consists of 20 lessons presented in a systematic and progressive manner. The computer keeps track of the user's performance. Errors are indicated for each exercise and review lessons are completed after each group of skills. The management system times and keeps track of each user's progress as the lessons are completed. The skills in each lesson must be mastered before the next lesson is attempted.

**KIDS ON KEYS**

\$49.95

Imagineering/Edusoft

Three exciting games suitable for 3 to 9 year olds, that teach the location of letters and numbers. In the first game, letters and numbers rain down the screen and the child finds the matching key before the image disappears. The second game, colourful pictures travel down and before they vanish the child has to type in the correct word. In the third game, the child must match the correct picture to the word that flashes up.

**MASTERTYPE**

\$69.95

Imagineering/Edusoft

This program is in the form of an arcade game in which the letters, and in later exercises the words, appear in the four corners of the screen and the operator is required to press the keys before they move in to destroy the base at the centre.

**PAWS**

\$50.00

Jacaranda

Designed to teach basic keyboarding skills to primary school children. The two disks contain seventeen lessons, hints and reminders about correct posture, etc

**SMARTTYPE: A KEYBOARDING PROGRAM**

McGraw-Hill \$39.95

This package tries to make learning the correct skills to keyboarding fun. The program allows the student to enter their own personal passages and word lists.

**STICKYBEAR TYPING**

\$59.95

Edusoft

The freshest, friendliest typing instruction program on the market. Big, bold graphics make it easy for the whole family to learn or improve typing skills. Use the 3 super activity games to sharpen skills so necessary for typewriter and computer keyboard mastery. Program provides multiple level of difficulty, allows you to track progress and store result on disk. Works on Apple II, II+, IIe and IIc.

**TNT: TYPING FOR NEW TYPISTS**

Grolier \$54.95

This program contains 30 tutorial programs, 30 practice paragraphs and a disk to record student progress. Comes with a backup disk and guide.

**\*TYPE**

\$45.00

Logistics Software

Type is a touch typing tutor containing forty-three exercises. It is extremely easy to operate and the majority of the exercises are based on proper words. There is no speed component until the later exercises. The exercises are well graded and an incorrect entry produces a beep and is not accepted. The keyboard is displayed on the upper section of the screen at all times and the next letter to be entered flashes. The exercises cover the three rows of letters but not the numbers. The most recent version covers upper and lower case on the Apple IIe.

**TYPING WELL**

\$49.95

Dataflow

This program consists of five games to give fun to students while they practice their typing skills. They create word pictures, gobble up letters and can enter their own personal sentences and paragraphs. Calculates words per minute.

**\*TYPEQUICK**

\$65.00

Typequick

A professional keyboard training course in 10 lessons. Each lesson starts with a recap and warm-up session of the previous lesson. The program monitors each keystroke for speed and accuracy with an audible tone notifying errors. The student's guide contains a set of preliminary instructions on posture, stroking technique, etc. Refresher lessons are provided to maintain or build the graduate's speed and accuracy.

**TYPING STRATEGY**

\$49.95

Imagineering

This program uses an animated keyboard on the screen that will show which keys and letters to press without looking at your fingers. Animated hands show you which fingers to use while typing. Games are provided to help increase speed.

**\*TYPING TUTOR \$70.00****Prologic**

This program contains a series of practical typing lessons developing students keyboarding abilities in selected keys, commencing with the Home Row Keys on a standard QWERTY keyboard and progressing through the twenty-two most commonly used keys. There are two main objectives. First, vowels are introduced as early as possible to enable word formation so that practice drills include words. Second, keys used in Apple Logo are also introduced at an early stage. Teachers may set-up their own lessons of characters, words or phrases.

**TYPING TUTOR II \$69.95****Edusoft**

With Typing Tutor II, beginners quickly develop speed and accuracy on the 'home' keys, with the additional keys added as skills improve. Menus allow the selection of specific items - alphabet keys, keyboard numbers, practice paragraphs - to hone skills, as well as standard speed tests and graphs to illustrate performance. A unique time-monitoring system which detects even a slight pause between strokes, automatically adjusts the lessons to match the individual learning curve of each person using the program. Typing Tutor II also builds more advanced skills as the lessons concentrate on specific key combinations that are less common or more intricate, and therefore typed more slowly. The self adjustment automatically creates lessons suitable for transition from typewriter to word processing keyboards, or for the addition of number keys to typing skills.

**TYPING TUTOR III \$69.95****Edusoft**

With Typing Tutor III, beginners quickly develop speed and accuracy on the 'home' keys, with the additional keys added as skills improve. Menus allow the selection of specific items - alphabet keys, keyboard numbers, practice paragraphs - to hone skills, as well as standard speed tests and graphs to illustrate performance. A unique time-monitoring system which detects even a slight pause between strokes, automatically adjusts the lessons to match the individual learning curve of each person using the program. Typing Tutor III also builds more advanced skills as the lessons concentrate on specific key combinations that are less common or more intricate, and therefore typed more slowly. The self adjustment automatically creates lessons suitable for transition from typewriter to word processing keyboards, or for the addition of number keys to typing skills.

Letter Invaders is a high speed arcade game that challenges any level of typing skill. As letters fall from the top of the screen, the user must type each correctly on the keyboard before it hits the bottom; it explodes in mid air on the screen. While Typing Tutor III teaches the keyboard skill and tests progress, Letter Invaders sharpens proficiency through increasingly difficult letter combinations and the exciting time pressure involved. Suitable for Apple II/IIe/IIc.

**18. LANGUAGE SKILLS****ADJECTIVES \$39.95****Dataflow**

Multilevel lessons include the identification of adjectives, possessive nouns and possessive pronouns, adjective endings and using articles as adjectives. Both individual and class records are stored and may be printed and the lessons are modifiable.

**ADVERBS \$39.95****Dataflow**

The graded lessons included on this disk help students to identify adverbs by their use, position and structure. Teacher modification and class records are a feature of this program.

**ALLIGATOR ALLEY \$49.95****Dataflow**

Selects the options where the two parts make a word. Enter your own lists to expand this program.

**ANALOGIES ADVANCED \$39.95****Dataflow**

A more advanced two-disk program for grades 7 to 10.

**ANALOGIES TUTORIAL \$49.95****Dataflow**

The student learns to identify different types of analogies with hints or explanations given where an incorrect response is given. Types of analogies include: synonym/antonym, object/group, part/whole, object/use, object/user, cause/effect and object/description. Lesson content may be altered by the teacher.

**ANTONYMS/SYNONYMS \$39.95****Dataflow**

The program features five different levels, record keeping and the option for teachers to modify the lesson material.

**BACK HOME \$54.95****Edsoft**

The package consists of the Back Home cassette, and the Back Home Companion (containing a variety of comprehension and other classroom activities based on songs) and two disks. Disk One - students can access the words of 12 songs for Cloze practice. Users select their own gap frequency each time (anything from 5th and every 15th word) and reconstruct the complete text either from context and using help functions or from using the cassette. Disk Two - there is a choice between Storyboard and Dictation. Storyboard deletes the whole text of the verse selected by the user who then attempts to reconstruct the whole verse by listening to the cassette, guessing words and using various help functions. With Dictation the user types out the verse while listening to the tape and the computer only accepts the right version.

**BOPPIE'S GREAT WORD CHASE \$39.95****Dataflow**

Boppie's is a game of word recognition, word creation and spelling. The program contains 256 built-in words, lists can be individualised for 8 different

levels. Students manipulate Boppie around a maze, gathering letters in the proper order to spell out a word.

**CAPITALIZATION \$49.95****Dataflow**

A two-disk program covering the rules of capitalization followed by examples and 25 practice sentences. The test disk includes student management files which keep records on all student responses.

**CHOICE MASTER ENGLISH \$54.95****Edsoft**

Choicemaster is an authoring program designed for writing multiple choice tests. Up to 30 questions may be written in one test with up to 3 lines of question, 3, 4 or 5 choices, and an 'error message' option for distractors (up to 3 lines per distractor). A 3-line 'introduction' feature can direct students to a particular piece of reading or listening if the test is to be used as a comprehension device. Teachers can also decide at the writing stage.

**CLOZE MASTER ENGLISH \$54.95****Edsoft**

Clozemaker is an authoring program for producing Cloze exercises (in which every nth word of a continuous text is deleted, to be restored by the learner). The Writer program allows the user to enter a text up to 50 lines (or about 300 words) long. The text is entered in a continuous stream with automatic wrap-around, and a line-by-line checking feature is included.

**COMPUCAT SPELL \$79.95****McGraw Hill**

This program has a built-in timer, graphics, and carefully sequenced and graded lessons. Words are selected at random by the computer and students try to guess the correct word. Fast, motivational and a good reinforcement for basic spelling.

**CROSSWORD CHALLENGE 1 \$54.95****Edsoft**

Learners can solve these puzzles alone or can use the unique two player mode; the two solvers take it in turns to pick a clue and win a point for a correct answer. Answers are typed directly into the diagram - the computer makes sure that they go in the right position - and wrong answers are deleted automatically. Suitable for primary and middle schools.

**CRYPTOCUBE \$43.95****Edusoft**

A family word game with 50 four-sided puzzles with vocabulary levels for ages 8 to adult. Puzzles may also be created using the editor.

**\*DIRECT HELPER \$350.00****Dataflow**

A major package for remedial reading and spelling developed in Australia. It includes four programs for student use: Word Reading (SAY), Story Reading (STORY), Spelling (SPELL) and Advanced Spelling (HIDE AND SPELL).

**DRAGON GAME SERIES FOR LANGUAGE ARTS****Micro Nationwide \$59.00**

A game format allowing students to review and practice parts of speech and other English language concepts including nouns, verbs, adjectives, synonyms, antonyms and contractions.

**EDUCATION CLASSICS \$25.00****Apple Computer**

On one side of this disk are four programs: Lemonade, Darts, SuperMath and Don't Fall. Don't Fall is a word recognition and spelling game like Hangman. Teachers may easily add new lists of words using the editor. On the other side is a program called Magic Spells.

**\*EDUCATIONAL GAMES PACK #2****Passionfruit Software \$60.00**

Of the five programs included on this disk, Unscramble is suitable for spelling. The game is for one or two players with 5 levels of spelling words included on the disk or teachers may add their own words. The other programs are concentration, two arithmetic activities and a shape counter for the infants child.

**ELECTRIC ENGLISH \$142.95****Edsoft**

The package includes two diskettes and allows students to learn parts of speech and identification or phrases, clauses and sentences within the context of complete paragraph lessons.

**ELEM. VOL. 2: LOGIC, SPELLING AND VOCABULARY.****Seasen Software \$27.00**

This diskette contains 7 programs. The first, Word Find, allows the teacher to enter words which are then printed out in a word puzzle. Crossword accepts both words and clues to generate crossword puzzles. Amazing generates mazes for students. Mixup presents scrambled words from a list entered by the teacher. Spell gives a timed display of words from a teacher entered list and then the student enters the word. In Word Game students are given clues to try to type the word selected by the computer. Talk allows young children to have a "conversation" with the computer.

**ELEMENTARY VOLUME 5: PREFIXES****Seasen Software \$27.00**

Contains lessons and drill on the five prefixes, un-, re-, dis-, pre- and in-. Activities and work sheets complement the lessons.

**ENGLISH ACHIEVEMENT 1 \$59.95****Edsoft**

Four words or groups of words are highlighted and numbered in each sentence. The student must decide which one of the four contains an error. The program will then list the actual error along with the explanation and a correction of the original sentence.

**ENGLISH ACHIEVEMENT II \$59.95****Edsoft**

As sentences appear on the screen, the student decides what type of error makes it incorrect. Sentences

include errors in grammar, diction, wordiness, or mixed metaphor. The program will then explain the errors and provide corrections.

**ENGLISH ACHIEVEMENT III \$59.95****Edsoft**

For each sentence, four possible rewrites are offered. Only one rewrite is correct. Upon choosing a rewrite, the program will list, if desired, what the errors are in the other three options.

**ENGLISH ACHIEVEMENT IV \$59.95****Edsoft**

The student must determine what type of error is contained in each sentence that appears on the screen. Sentences contain errors in punctuation, agreement, comparison or faulty parallelism. After the student makes a selection, the program provides an explanation and sentence correction.

**ENGLISH ACHIEVEMENT V \$59.95****Edsoft**

Each sentence is followed by instructions to change it in a particular fashion. From the four choices given, the student must select the best rewrite that incorporates the change specified. A rewrite including the change as well as an explanation may be viewed by the student, as well as explanations for the three incorrect rewrites.

**ENGLISH BASICS - PARTS OF SPEECH****\$49.95 each, \$195 for 5 disks****Micro Nationwide**

Each of the five programs contains tutorial and testing material and a management system. Topics for the five disks are nouns, pronouns, verbs, adjectives and adverbs.

**ENGLISH BASICS - CONCEPTS IN LANGUAGE ART****\$49.95 each, \$119 for 3****Micro Nationwide**

Tutorial and testing material on homonyms, synonyms and contractions.

**ESL PICTURE GRAMMAR \$99.95****Edsoft**

Give your ESL students the practice they need in creating sentences with this visually interactive program. The student is shown a picture of a subject and an object and is told which verb tense to use in order to create a sentence with all three elements. Starting with simple affirmative statements, the program builds in complexity to negatives and questions for the present, past, future and progressive tenses - a total of 24 units. Visual clues assist students in correcting errors. A cumulative test reviews all units and maintains scores. A 30-page manual reviews the program and rules for forming tenses.

**FIGURATIVE LANGUAGE \$49.95****Dataflow**

A two-disk program to help students understand figures of speech. Examples include: simile, metaphor, hyperbole and personification. All lessons may be modified and the program keeps individual and class records.

**GRAMMAR AND WRITING \$187.80****Britannica**

Enables students to develop their skills. The package emphasizes language rules through usage and text.

**\*GUESS THE WORD \$25.00****Angle Park Computing Centre**

A program based on the user selecting letters to guess the word. The teacher controls the word list, the number of wrong guesses and the time allowed to guess the word. (School Licence)

**HIDE 'N SEQUENCE \$89.95****Edsoft**

This program provides practice in reading and writing for sequence and continuity. It also provides practice in reading and writing in the four modes of discourse: narration, description, exposition and persuasion.

**HOMONYMS \$29.95****Dataflow**

Lessons include 17 tutorials and 3 reviews at five levels of reading. Starting with examples like son/sun and leading to cereal/serial.

**HOMONYMS, VERBS & PRONOUNS****Britannica \$295.00**

The package provides extensive drill and practice in troublesome grammar and usage areas related to homonyms, verbs and pronouns. Includes teacher's guide.

**IDEA INVASION \$49.95****Dataflow**

Teachers can build their own game based on groups. Similar to Word Invasion but teachers can enter their own information.

**INSTRUCTION & MANAGEMENT SYSTEM****Grolier \$179.00**

Students get practice in applying rules of punctuation and capitalization. The program covers 40 rules, for each an instructional worksheet can be printed, plus practice, mastery and review worksheets.

**LETTER RECOGNITION & ALPHABETIZATION****Britannica \$115.00**

A variety of exercises develop letter recognition and alphabetization skills. Activities include, listing words and names, creating sentences, recognizing interruptions in order and determining word order in a list. Teacher's guide included.

**MAGIC SPELLS \$49.95****Ashtron Software**

In this program children unscramble and practise spelling words. Teachers can insert their own word lists.

**MASTER MATCH \$49.95****Dataflow**

A game like Word Master where teachers can enter their own information in pairs for any subject area.

**MEMORY MATCH \$35.95****Dataflow**

A concentration game that the teacher may easily modify. Categories on the disk include: homonyms, number words, rhyming words, contractions and many others.

**M-SS-NG L-NKS \$79.95****Edsoft**

This engrossing language puzzle strengthens skills in reading, writing, spelling, grammar and comprehension. It helps students identify, understand and appreciate syntax, word use and the mechanics of writing.

**MIX & MATCH \$28.00****Apple Computer**

Raise the Flag, one of four programs on this disk is a guessing game. Teachers may insert their own word list. Animal is a logical game where the user has to define animals that the computer does not already know. The other two programs are Layer Cake, a logical game, and Mix & Match, a fun program for children to mix parts of a body to make mixed muppets.

**NOUNS/PRONOUNS \$32.95****Dataflow**

The multilevel program includes recognition of common and proper nouns, possessive-nouns and pronouns, noun plurals, identification of pronouns and identification of pronoun antecedents.

**OPPOSITES \$29.95****Dataflow**

A graded set of lessons suitable for the primary student.

**PATHWORDS \$54.95****Edusoft**

This program is a spellbinding game of word knowledge, speed and strategy. Students race against the clock to link together adjacent letters to create words. One to four players.

**PUNCTUATION PUT-ON \$79.95****Edsoft**

In this innovative language program, students are placed in the position of a writer making judgements about how punctuation marks enhanced dialogue, narrative, poetry and other styles of writing. Students are challenged to use exclamation and quotation marks; colons; semi-colons; apostrophes; commas; periods and parentheses.

**THE PUZZLER \$69.95****Edsoft**

The Puzzler presents five intriguing "mystery" stories that actively engage students in the problem-solving process of reading for meaning. As the stories unfold, the students use the reading strategies of predicting, confirming, and integrating to solve each story puzzle. At the end of the stories, students enter their solutions. (More than one answer is possible for each story). The program focuses on comprehension and creative expression of ideas. An accompanying teacher's guide suggests discussion ideas and writing lessons for a complete language arts package.

- QUESTIONMASTER ENGLISH** \$54.95  
Edsoft  
This program, originally known as the Teachers Toolkit and Courseware Writer, is an authoring system suitable for any text-based subject. The design of the package enables the teacher to set up any type of question and answer routine in which the student is expected to type in the full answer which can be either a word or a whole phrase. Each program consist of an introduction, a question - answer section and a help note section. Other features include - Reinforcement comments, Alternative answers, Pattern matching, Default to lower case, Superfluous spaces and Remedial re-run.
- ROOTS/AFFIXES** \$39.95  
Dataflow  
Lessons on roots, prefixes and suffixes suitable for primary students.
- SCRAMBLED LETTERS/FLASH SPELLING**  
Micro Nationwide \$39.95  
Scrambled letters is a game for two in which spelling words are presented scrambled and the students unscramble the word. Teachers may add their own words. Flash spelling flashes the word and then the student types the word on the keyboard. If the student is incorrect, the word is flashed again for a longer time. Teachers may add their own lists.
- SENTENCE COMBINING** \$325.00  
Britannica  
This package uses creative graphics to teach writing skills. They develop "sentence sense" by manipulating sentences. Includes 3 diskettes, teacher's guide, reproducible masters and folder.
- SPELL IT** \$79.95  
Edusoft  
A spelling program that concentrates on the 2000 most commonly misspelled words. Teachers may create their own lists.
- SPELLAGRAPH** \$49.95  
Edusoft  
Practice spelling and work out word picture puzzles. New word lists may be created.
- SPELLAKAZAM** \$49.95  
Edusoft  
This program has multiple skill levels, comes with 400 words divided into different grade levels. Students complete with the magician to release hidden animals as the words are revealed.
- SPELLDIVER** \$49.95  
Ashtron Software  
A word guessing game in which thousands of words are stored on disk from simple five-letter words to ten-letter words.
- SPELLICOPTER** \$49.95  
Edusoft  
A word spelling game with 400 words in 40 lists. Several levels of play are included and teachers may insert their own word lists.

- SPELLING BEE AND READING PRIMER** \$59.95  
Edusoft  
Aims to build spelling skills, identify basic word groupings and link words to pictures. It includes two programs suitable for 3 to 7 year olds. Spelling Bee offers two activities. In the first the word/picture combination is shown on the screen, after the word disappears the learner attempts to spell it. The second asks children to match a word and picture. Reading primer display three objects and a single word. The child selects which object is correct. A management program is included to select word groupings, set the number and length of trials and review a learner's performance.
- THE SPELLING SYSTEM** \$235.00  
Britannica  
This program is designed to teach the major principles and patterns that occur in spelling. Many irregularities are also covered.
- \* SPELLING & SPEED READING** \$60.00  
Lothlorien Software  
This package comes with a two programs, the Tutorial and the Editor. Teachers can insert their own word lists and reading passages using the Editor while students use the Tutorial for reading and testing.
- SPELLING PARTNER** \$49.95  
Edusoft  
8 ways to practice spelling and word recognition. Words to be practiced are entered by the teacher allowing each student to have their own list stored on disk. May be printed.
- SPELLING RULES** \$49.95  
Edusoft  
Illustrates and provides exercises covering six basic rules: ie or ei, final e, adding k, final consonant, -sede, -ceed or -cede and final ly.
- SPELLING WIZ** \$49.95  
Dataflow  
Practice in selecting missing letters from commonly misspelled words.
- \*SPELLINGWORKS** \$49.95  
Dataflow  
This program allows students to spell words correctly after appearing on the screen. The program has a built in editor to allow teachers to create their own lists.
- SPELLTRONICS** \$69.00  
Micro Nationwide  
The program uses the letter cloze technique to reinforce correct spelling and build visual memory. The program on two disks includes 240 new words and teachers may add their own lists. Each word is presented 3 times with different letters missing. Suitable for students with trouble spelling.
- STORYBOARD** \$54.95  
Edusoft  
Storyboard is a popular authoring program in which a full screen of text is typed in (and saved) by the teacher and is replaced by a series of astrisks and punctuation marks. The learners job is to restore it word by word (not letter by letter). Words are "guessed" in any order and if

- present in the text are slotted into position. This is an ideal program for class or group participation. The teacher can either point the class in the right direction or stand back and let the group suggest entries. With each correct word entered, the text gradually takes shape and it becomes easier to reconstruct the story. Storyboard is used to reinforce reading and comprehension skills in schools at all levels.
- STORYBOARD PLUS** \$54.95  
Edusoft  
Storyboard Plus package consist of 18 original stories. Each story uses the storyboard 'driver' program and is the starting point for individual or class discussion. Storyboard plus consist of a disk of the stories, plus the driver. A Booklet of operating instructions. An audio cassette containing spontaneous readings of the stories as an elaboration of the written text.
- \*TREE OF KNOWLEDGE** \$25.00  
Angle Park Computing Centre  
A sentence building program in which the student plays a guessing game with the computer and when the computer is unable to guess the object, the student teaches the computer about the new object. The game can be set by the teachers to work with particular objects when the teacher defines the first two objects. (School Licence)
- VERB USAGE 1,2,3** \$29.95 each  
Dataflow  
Provides practice on the correct use of verbs in three disk programs. Each lesson is based on discriminating between the present, past, past participle, and the infinitive of a single verb. Disk 1 includes do, see, go, eat, take, give, blow, grow, know, throw, run, come, ring, sing and begin. Disk 2 includes the verbs ride, drink, speak, break, choose, swim, freeze, drive, tear, wear, fly, write, bring, draw and shake. The third disk covers steal, fall, swing, say, be, is/are, was/were, isn't/aren't, wasn't/weren't and doesn't/don't.
- VERB VIPER** \$49.95  
Dataflow  
Assists students master subject agreement with regular and irregular verbs in present tense, past tense and past participle form.
- VERBS** \$32.95  
Dataflow  
The skills included are identification of verbs, agreement of subject and verb, past, present and future forms of regular and irregular verbs, contractions, subjunctive forms, etc.
- WALLY'S WORD WORKS** \$79.95  
Edusoft  
Your students will love Wally the Wallaby who hops along sentences and picks up words, helping students learn about the parts of speech within the context of full sentences and paragraphs. Students earn points by directing Wally to deposit a word in the correct part-of-speech pocket, using the words position and function in the sentence as clues.

- WHO, WHAT, WHERE, WHEN, WHY** \$35.95  
Dataflow  
Fourteen sequenced lessons to teach children to differentiate between these often confused concepts. A program that the teacher may modify.
- \*THE WORD** \$55.00  
Logistics  
This package contains four programs. Three word programs and one memory game. The programs are accompanied by 16 lists of words. These lists can be modified or over written by your own word lists.  
**READ** - This program displays a word on the screen for a period of time. The word is cleared and the student is asked to enter the word. If the student response is correct another word is displayed.  
**SECRET** - This program plays a word guessing game. The computer selects the word from the desired list and the student tries to discover what the word is. Correct letter matches between student word and computer selected word provides feedback to the student.  
**HANG** - In this game the computer selects a word from the specified list and the student guesses letters of the word. When a correct guess is made the student is allowed to guess the word. Ten guesses are made before the correct word is given.  
**SIMON** - Simon displays letters on the screen at random. As one letter after another is flashed on the screen the student needs to remember the correct sequence. Various levels of difficulty exist. (Apple II+, IIe, IIc)
- WORD ATTACK**  
Program Disk \$67.95  
Data disk \$29.95  
Edusoft  
The program includes 675 words with meanings and sentences illustrating their use on 9 levels of difficulty. Activities include multiple-choice quizzes, sentence completion exercises and an arcade game. Teachers may create new disks and add words for their individual needs.
- WORD FAMILIES** \$29.95  
Dataflow  
A program suitable for grades 1 to 4 which helps children find word families. Students select other letters that will replace the underlined letter in the word to make another word. The program is modifiable.
- WORD INVASION** \$49.95  
Dataflow  
Provides practice in identifying parts of speech in an arcade style game. Six parts of speech are included: nouns, pronouns, verbs, adverbs, adjectives and prepositions.
- WORD MAN** \$49.95  
Dataflow  
Gives children practice in word formation with three and four letter words.
- WORD MASTER** \$49.95  
Dataflow  
Gives practice in identifying antonyms, synonyms and homonyms at three difficulty levels.

- WORD QUEST** \$79.95  
**Edsoft**  
 This program consists of 2 games. The first: students deal with the concept of "betweenness" as they try to find a word that fits between 2 given words. The second: one player picks a "mystery" word, and the other has to try and guess it by getting clues as to which words the mystery word fits between.
- WORD RADAR** \$49.95  
**Dataflow**  
 A program to provide practice in matching sight words.
- WORD SCRAMBLER AND SPELLING TUTOR**  
**Edusoft** \$64.95  
 Fun spelling exercises on three levels, optional word unscrambling and special exercises for missed words.
- WORD SEARCH** \$29.95  
**Dataflow**  
 A series of words are entered to create a seek-a-word exercise. The computer creates the exercise according to the specifications of the teacher. Words can be overlapped, backwards, diagonal, top to bottom. An answer key can also be printed.
- WORD SPINNER** \$49.95  
**Ashtron Software**  
 The program allows children to build three and four letter words. Players experiment with letter combinations to build words and learn to recognise common patterns of letters.
- \*WORD WORM** \$55.00  
**Logistics**  
 Word Worm is a spelling drill/game using high resolution graphics. It may be used with early primary school children or older secondary students. The Object of the game is to make the worm eat the letters of a word in the least possible moves. You must guide the worm through the letters of the word in the correct spelling order, otherwise the worm will ignore them. Strategy - words are randomly chosen from a selected list. The chosen word is scattered on the screen and optionally displayed on the top right corner. The scattered letters can then be eaten by building the worm to each letter in the correct spelling order. Word Worm also comes with The Word Manager program and printing of word lists so that a teacher can create word lists as desired. (Apple II+, IIe, IIc)
- WORD-A-MATION** \$79.95  
**Edsoft**  
 Helps students to understand how words are related in meaning, sound, spelling and syntax. It reinforces the specific concepts of synonyms, antonyms, categories, homophones, tense and spelling patterns.
- WORDFINDER** \$49.95  
**Edusoft**  
 This program is designed to help students improve their vocabulary and spelling skills at their own pace. Players must make as many words (at least three letters or more) from the key word scoring a point for each word.

- WORDWISE:SYNONYMS/ANTONYMS**  
**Edusoft** \$59.95  
 Program generates problems at random, allowing for almost limitless practice. An "electronic dictionary" permits the student to stop at any time and get the definition of a word.
- \*WORKING WITH WORDS** \$70.00  
**Prologic**  
 A utility program which enables teachers and students to store words grouped in meaning related categories. Features include the ability to enter new words, list synonyms and conduct word searches.

## 19. LIBRARY SOFTWARE

- \*THE ACQUISITIONS SYSTEMS** \$1500.00  
**Lothlorien**  
 This program can be used either as a stand-alone system or integrated with the complete suite of Lothlorien Library Modules. Information is automatically drawn from the Supplier's file and the Fund/Cost centre database and only specific item information needs to be keyed in. Capacity 400 to 10,000 orders including standing orders 100 Cost/Fund centres. Integrated with Library System the price is \$750.00.
- BOOK TRAK** \$1319.00  
**S & M Supply Company**  
 Book Trak consists of five sections: circulation (\$727 + barwand), catalogueing (\$182), magazine control (\$182), order typing (\$182) and card & label printing (\$146). The circulation program takes control of up to 65,000 item for up to 10,600 students and 800 faculty members. It provides daily overdue notices and take inventory using a barwand. The catalogueing section stores each book's call number, author, title paragraph, collation, ISBN or LC number, accession number and 4 subject headings. New books can be readily entered and then printed out for cards and labels. Magazine control stores 11 categories of information for an unlimited number of periodicals. Orders for books periodicals and other publications may be generated with the Order Typing program. Catalogue cards and labels may be custom printed.
- BOOK WORM** \$159.00  
**Edusoft**  
 This program will help keep track of all materials that leave the library. Data may be entered by six different categories: name, grade, homeroom, title, author call number or due date. A printer is required.
- CATALOGUE CARD & LABEL WRITER**  
**Edusoft** \$239.00  
 This program will print customised cards, spine and pocket labels to your exact requirements, and as many copies as you may require.
- \*COMPUTER AND SCHOOL LIBRARIES:  
 AN ANNOTATED BIBLIOGRAPHY**  
**Riverina CAE, Centre for Library Studies**  
**PO Box 588, Wagga Wagga. 2650. \$12.00**  
 This two hundred page annotated bibliography provides a guide to the literature available, as of August 1985, on the use of computers in school libraries. It is the second volume in this series.
- \*COMPUTER AND SCHOOL LIBRARIES:  
 AN ANNOTATED BIBLIOGRAPHY Vol 2**  
**Alcuin Library Consultants \$12.00**  
 This two hundred page annotated bibliography provides a guide to the literature available, as of August 1983, on the use of computers in school libraries.

- HOW CAN I FIND IT IF I DON'T KNOW WHAT I'M LOOKING FOR?** \$79.95  
**Edsoft**  
 This program has been designed to help students identify and locate specific books, facts or other needed information in a library. The programs' questions format leads the student through a series of branching operations to explore the resources of the library. A Change Option will allow individual schools to customise the program to include books currently in their own library.
- \*LIBRARIAN'S APPRENTICE** \$75.00  
**N.D.E.C.**  
 This program was written to aid the Librarian in the production of catalogue cards, labels for the top of the book cards, pockets and the book spine. The accession details are also provided in accession register order.
- \*LIBRARIAN'S ASSISTANT - LOAN SYSTEM**  
**Lothlorien** \$150.00  
 The Librarian's Assistant keeps track of loans and returns of material from the library. It also has fast retrieval of information by keyword search and will provide a hard copy. The print-out facility can also produce a list of borrowers who have overdue books or articles. Each diskette will hold about 2100 loan records.
- \*THE LIBRARY CATALOGUE** \$150.00  
**Lothlorien**  
 The program provides a means of keeping a complete and up-to-date listing of all material in the library. The entry of new material is fast and simple and an editor is provided so that changes may be easily made. The search facility allows items to be found under any of the sub-headings. The print-out facility can be used to make card records of the items in the library. Each diskette will store up to 2100 items.
- LIBRARY CIRCULATION MANAGER**  
**Edusoft** \$349.00  
 This program will assist in automatically generating overdue lists and notices, will keep track of outstanding books and will print mailing labels.
- \*LIBRARY SKILLS** \$69.95  
**Edusoft**  
 Do your students need help in finding just what they need in the school library? Students can come to a library for different reasons; reading for enjoyment, research material for class, short answers to a reference question. Each may have an idea that the card catalogue or encyclopedia could be helpful, but few students have developed good search strategies that will allow them to utilize the wide range of material available. How can I Find It... is the perfect program to help students learn valuable library skills.
- \*MULTILIB 1** \$1,705.00  
**Lothlorien**  
 MultiLib 1 is a hard disk based, single terminal system allowing automation of an extensive library collection. Functions include cataloguing, informational retrieval,

circulation and overdues control. Capacity 28,000 items and 2,000 borrowers.

Optional extensions for MultiLib 1 include

Stocktake system	\$250.00
Communication & Utilities	\$550.00
Class Sets	\$300.00
Barcode reader	\$1,150.00

MultiLib 1 is a modular product allowing growth to MultiLib 2 and onwards with no program or data changes, but requiring a harddisk "swap" from single to multi-user facility.

**\*MULTILIB 2 \$2,920.00**

**Lothlorien**

MultiLib 2 is a hard disk based, single terminal system allowing automation of an extensive library collection. Functions include cataloguing, informational retrieval, circulation, overdues control and public access. Capacity can exceed 25,000 items and 2,000 borrowers. Additional terminals can be used for any of the library functions encompassed in the suite of integrated programs. Several terminals can perform the same or different tasks simultaneously.

Optional extensions for MultiLib 2 include

Stocktake system	\$250.00
Communication & Utilities	\$7000.00
Public Access	\$430.00
Class Sets	\$300.00
Per terminal	\$150.00
Barcode reader	\$1,150.00

MultiLib 2 is a modular product allowing growth to a larger hard disk and onwards with no program or data changes. With a 20Mb hard disk the record capacity increases to 55-60,000 records. Larger hard disks give a larger capacity. Both MultiLib 1 and 2 are compatible with the Apple IIGS.

**\*PROLIB \$500.00**

**Protex Software Services**

PROLIB is a computerised library system which was developed in NSW especially for schools. The main purpose of the program is to provide a speedy and accurate method of handling the borrow/return functions of a library. The minimum configuration required is 48K and a single disk drive. This configuration supports 600 students, 40 classes and 10,000 books and normal library functions are performed without changing disks. More memory gives greater capability.

PROLIB can be operated entirely using the computer keyboard but also has an option to use a barwand reader which is used to read barcodes on pre-printed labels which are affixed to each book and student library card. Features include: circulation control, maintenance of student and book files, list unused student and book numbers, management information, statistics and stocktake.

**THE SOFTWARE LIBRARIAN \$59.95**

**Micro Nationwide**

This program has been designed to help keep track of all your software and media matters. The program stores the information on a datadisk (s) under software title, recommended grade, academic subject and catalogue or ISBN, as well as allowing a full description of the software. Completely menu driven this program requires 2 disk drives, a printer is optional.

## 20. LIVING SKILLS

**COGNITIVE REHABILITATION \$595.00**

**Dataflow**

The four programs were developed to address the variety of organizational deficits which typically result from traumatic brain injury and other neurologic impairments. The package includes a fifth disk which is the authoring program. The first of the four programs, Categorization, provides 11 lessons of categorization activities. The second, Sequencing offers 12 individual lessons covering sequencing from simple numerical sequencing to verbal sequencing. Association, provides 10 lessons ranging from simple association to analogous reasoning. Memory, offers a variety of recognition and recall activities in 13 different lessons. The authoring program provides an easy-to-use format for expanding or individualising activities from the four core disks.

**\*DEVELOPING LIVING SKILLS \$50.00**

**Prologic**

This simulation game takes individuals or groups of students through the experience of living independently for one year. They work and carry out social activities, by making decisions from random choices prompted by the computer. At the end of the period they can assess their financial and social status. The aim is to survive financially for a year while facing all the temptations, tribulations and rewards present in real life. Because of the random elements in the program it is unlikely that two users will get the same result.

**I CAN \$49.95**

**Edusoft**

This program promotes an awareness of the kinds of options we can exercise in managing to cope better with day to day stress in our lives.

**KEYS TO RESPONSIBLE DRIVING**

**Chapman Software \$79.95**

Helps future drivers to become responsible defensive drivers. The program has full-colour graphic simulations, and complete explanations of safe driving techniques. Runs on Apple II+, IIe, IIc.

**KNOW YOUR OWN I.Q./PERSONALITY**

**Edusoft \$64.95**

These two programs determine approximate I.Q. and pinpoint key personality traits by computing user's responses to authentic, professionally prepared test questions. Program output can be printed.

**LEARNING TO COPE WITH PRESSURE**

**Edusoft \$125.00**

Learning to Cope with Pressure uses biofeedback to help your students learn to reduce stress, and relax deeply and completely. The program includes a special biofeedback monitor that measures galvanic skin resistance (GSR) - a reflection of pore and sweat gland activity, GSR is a good indicator of the amount of tension an individual is experiencing. Using GSR

results, students practice stress control through relaxation exercises and in an exciting road racing game where the calmer they remain, the better they play.

**MAKE IT CLICK \$69.95**

**Edsoft**

Car accidents are the leading cause of death in people under 40. This risk can be cut in half by using seatbelts. As you get in your car, you are faced with a decision - whether consciously or subconsciously - concerning the use of seatbelts. This interactive program uses decision making situations to help students form opinions about their own use of seat belts. (\$165.00 for 10 Pack)

**PHYSIOLOGICAL SIMULATION \$49.50**

**Hienemann**

In this simulation of an active human, the user, representing the brain, has to keep the body alive while performing a series of physical activities. Once the sex, age, weight, vital capacity and blood volume of the person have been determined, the brain can vary the rate of breathing, the breath volume and the sweating rate while the human performs up to three different activities.

**THE SELF-INSTRUCTIONAL MANAGEMENT SYSTEM (SIMS) \$225.00**

**Edsoft**

SIMS provides the framework within which students can achieve success in self directed learning. It motivates them to learn on their own by giving them a system for monitoring and managing self-instructional projects.

**THE SMOKING DECISION \$69.95**

**Edsoft**

The Smoking Decision is an interactive approach to learning because your students actually become part of the decision making process - a process that will help them to decide for themselves about smoking. (\$165.00 for 10 Pack)

**21. MUSIC****APPLE IIGS      See your Apple dealer  
Apple Computer**

This new model in the Apple II series has a built in 15 voice sound synthesizer system. The chip employed is manufactured by Ensonic a supplier of such equipment for dedicated music systems. The system also allows purchasers to operate most current music software available for the Apple II series. Teachers and students of music may well wish to consider this system for use within their music department. Software to take advantage of this capability is being developed at the time of writing.

**INTERVAL DRILLMASTER      \$115.00  
Science Education Resources**

Provides students with practice in identifying and notating simple melodic intervals. The program has 22 levels of interval training. Students may either enrol in the program where each level must be passed before moving onto the next level or they may use the program without enrolling to review any lesson. Student records are kept for each enrolled student.

**\*LEARNING MUSIC: GRADE 1 - 3**

**Edusoft      \$38.50 each**  
These three programs are easy to use, self paced and cover the Australian Music Examinations Board's first three levels.

**MAKING MUSIC ON A MICRO      \$99.95  
Edusoft**

Through the use of BASIC students can learn and practice music theory. Comes with a 220 p book.

**MICROZINE 2      \$49.95  
Ashttron Software**

Melody Maker is one of four programs included on this disk. This program allows students to write music using the computer. The other programs on this disk are: Northwoods Adventure, a Twist-a-Plot story, Ride the Wind, a simulation of flying a hot air balloon and Word Ladder, a word game where the highest score is gained by using the fewest clues.

**MUSIC CONCEPTS      \$99.95  
Edusoft**

An introduction to music teaching the musical symbols and notation, instruments, composers, the orchestra, physics and the physiology of sound. Allows you to create and play back your own melodies.

**MUSIC CONSTRUCTION KIT      \$79.95  
Edusoft**

In this package the blank music sheet, clefs, notes, rests and other options are displayed on the screen. Icons are used for cut & paste, saving to disk, pointing to options and playing. With optional use of a joystick or koala pad selection is simplified still further. A variety of tunes are already included on the diskette including rock 'n roll, ragtime, nursery rhymes and baroque which may be played as they are or students can experiment with changing notes, key, speed, volume etc. The Apple can play two notes at a time but if the "Mockingboard" is added it will expand this to six notes at a time.

**MUSIC MADE EASY      \$50.00**

**HBS International**  
This package includes a disk and instruction manual, together they are used to teach the basics of music theory. Both aural and visual examples are included.

**MUSIC MAESTRO      \$39.95  
Dataflow**

A program which illustrates music with fun and theory for primary children. Children may compose music on a keyboard or clef, learn note reading and learn to play simple tunes which may be saved on diskette.

**\*MUSIC MAKER      \$25.00  
Bartlett Software**

This package provides a simple "programming language" for writing monophonic music which is written in a code adapted to allow simple input. Tunes may be played on the in-built speaker, modified or saved for later use on disk. They may also be converted into binary programs and used in Applesoft. Suitable for both Musical and BASIC applications. (Back-up disk add \$5.00)

**MUSIC READINESS/ PITCH & RHYTHM  
Edusoft      \$129.95**

This package contains two disk and covers pitch discrimination, direction, intervals of major seconds and thirds. The second disk demonstrates note values.

**MUSIC THEORY      \$79.95  
Edusoft**

The program includes 18 music theory programs to provide practice on terms, notations, rhythm, pitch, intervals, scales and chords. The package includes a disk, backup and a 127 page manual.

**THE NEXT NOTE      \$59.95  
Micro Nationwide**

This program covers beats, counts, units of time, full value, time signatures and intervals. Its main thrust is on rhythm and counting.

**PROKOFIEV'S 'PETER & THE WOLF'  
Edusoft      \$49.95**

This program develops primary music and listening skills using characters and themes from "Peter and the Wolf".

**\*PUBLIC DOMAIN PROGRAMS  
\$2 + disk for members, \$5 + disk for non-members  
N.S.W.C.E.G.**

Several public domain programs are available of varying complexity. In N.S.W. look for CEG disk #1 (**Musical Writer**), #4 (**Music Writer**) and #8 (**MusicMaker**). Music Writer and MusicMaker are also on disk #22.

**ROLAND MUSIC  
Roland Corporation**

An extensive package for musical applications which allows the addition of up to four synthesizers. Chords of up to 4 notes, seven percussion sounds, variable volume

and variable playback tempo are some of the features of this system. Products are:

MPU401, Midi interface with tape sync \$495  
 MIF-APL, Interface card for MPU401 \$195  
 MPU-APL MPU401 & MIF-APL comb \$225  
 IFM-APL Musicom interface with mic \$999  
 MIFM-AP L Musicom interface + mic \$1150  
 MUSE-APL Sequence program \$350  
 A1-APL Ear training \$750  
 B1-APL Fundamental of the Keyboard \$895  
 C2-APL Music Theory II \$895

\*SING \$10.00

#### Victorian Education Department

A program developed by the Computer Education Curriculum Project, Queensland for students in years 5 to 9 and now available through the Victorian Department of Education. Musical notes are entered and displayed graphically on the HI-RES screen of the computer. The notes are also played by the Apple's speaker. The program will allow students to enter a tune of up to 200 notes. However, once the notes have been displayed on the screen and that page is replaced by another, students may not view those notes again. The program stores the notes as a file which allows ready recall of "tunes". The program is not designed for complex tune creation.

SONGWRITER \$59.95

#### Imagineering/Edusoft

Allows students to write their own musical compositions without knowing musical notation. A library of 28 programs is stored on disk and these may be played or edited. A stereo connector is included as well as suggested activities.

SPIDER EATER \$59.95

#### Imagineering

This program is an accessory to the Koala Touch Pad. The program teaches note recognition, meter and composition. Music Composer allows the user free selection notes to produce songs. Crazy Sounds produces a variety of sound effects. The accompanying manual provides ideas and musical terms.

STICKYBEAR MUSIC \$59.95

#### Dataflow

This program teaches young students the fundamentals of music notation and composition. Compose a piece of music, play it, change the tempo or go back and change notes or sections.

TUNER \$59.00

#### Science Education Resources

Provides students with a unique drill that cannot be covered by either text or general classroom presentations. The program begins by sounding two tones on the computer's speaker that are less than a normal half-step apart. The student tunes the second pitch to match the first. The match is evaluated as "right", "close" or "wrong".

## 22. PRIMARY MATHEMATICS

Some of these programs are suitable for junior secondary students, remedial students and Special Education students in high school. The topics included here are work with whole numbers, fractions, decimals, integers, angles and shapes. Other programs that could be used to develop problem-solving skills can be found in the Section "Adventures and Puzzles".

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ADDITION MAGICIAN \$54.95  
 Edsoft

This innovative program provides the student with the opportunity to practice lining up and adding decimals of different lengths. The program contains a practice section where the student may generate random problems and using the I, K, J, and M, keys, move the numbers around the screen until they are properly lined up. The student may then choose to practice the complete process of adding decimals.

Options are given as to number of problems, size of numbers and amount of numbers to be added. Problems are generated randomly and are printed horizontally across the screen. After the numbers are correctly lined up, the student has the option to fill in non-significant zeros to the right of the decimal point. The student then adds the numbers just as if s/he were doing the problem on a piece of paper. Each column is added, the units digit entered and the carry entered in to the proper position.

ALIEN ACTION \$54.95  
 Dataflow

Invading spaceships are repelled and the missile base saved when students give the correct answer to basic arithmetic facts. Teachers may insert their own game lists.

ALIEN ADDITION \$54.95  
 Dataflow

Provide practice in addition using a space invaders type game.

ALLIGATOR MIX \$54.95  
 Dataflow

Combines drills in addition and subtraction using an alligator eating questions.

AMAZING THINKTANKS \$69.95  
 Edsoft

Students are given two tanks each of a set capacity that is randomly chosen by the computer - and a storage tank. The challenge: by filling tanks, emptying tanks, and transferring from tank to tank such materials as "Jolly Juice" and "Yeppie Paint", students must finally arrive at a target amount (also randomly chosen by the computer) in the storage tank. For example, if tank one has a 8 litre capacity, tank two a 1 litre capacity, and the target is 7 litres, a student would need to fill the first tank, pour the first tanks contents into the second tank, and pour the remaining 7 litres in tank one into the storage tank.

Students are scored according to the number of tries it takes them to complete the problem, and can compete with each other to find the most efficient way to solve a problem. (Apple II,IIe,IIc)

APPLE LOGO I or II \$102.00  
 Apple Computer

A computer language developed especially for children. Using turtle graphics allows children to experiment with numbers, angles and to estimate distances. An excellent tool for discovery learning. For resources pertaining to Logo see the section on Logo in this directory. Available in 64K and 128K versions.

THE ARITHMETIC CLASSROOM \$29.95 each  
 Ashtron Software

Self-contained packages covering the areas addition, subtraction, multiplication, division, addition and subtraction of fractions, order of fractions, decimals and math games.

\*ARITHMETIC-MADE EASY \$49.95 each  
 Spinifex Software

Four programs covering the operations of addition, subtraction, multiplication and division which allows the teacher to set individualised problem sets quickly and easily. Students may step through problems to see the method or ask for help. One of the few programs that covers long multiplication and division as well as addition and subtraction with carrying or borrowing.

BATTLING BUGS/CONCENTRATION \$49.95  
 Britannica Education Services

Battling Bugs is a readiness game for integers. Positive and negative bugs approach each other from opposite sides of the screen. Colliding bugs disappear. Students must choose numbers to destroy all the bugs. Concentration is a memory game using equivalent fractions. Students must look for equivalent fractions which may be expressed in pictures or symbols.

BUMBLE PLOT \$79.95  
 Addison-Wesley

This package consists of five programs on graphing skills introduced in Bumble Games. Program features include colour graphics, sound effects and music which can be turned off. The Pack also includes a teacher's manual, classroom activities and a backup disk.

CALENDAR SKILLS \$39.95  
 Dataflow

Students learn to identify months, seasons and holidays as well as days of the week and months of the year. Suitable for 8 to 10 year olds.

\*CARTESIAN GAMES \$18.00  
 Bartlett Software

This diskette contains four games using cartesian co-ordinates. The first, **Treasure Hunt**, uses a 9x9 grid (positive whole numbers) and is suitable for upper primary and lower secondary. **Spotlight Burglary**, the second, uses decimal co-ordinates in all four quadrants. **Fly Trap** uses linear equations to trap the most flies in the minimum area. The fourth program, **Duck Shoot**, for upper secondary students uses equations of conic sections to shoot ducks. (Back-up disk \$5)

- CHALLENGE MATHS** \$79.95  
**Edsoft**  
 An Alien space intruder, a lovable dinosaur like creature and a mysterious mansion in sound and colour, entice students into practicing whole-number and decimal operations. A teacher option allows you to modify difficulty levels. In Alien Intruder, students must give basic number facts before the alien eats the number. In Digtosaurus, students estimation skills help a lovable creature grow older and wiser. In Math Mansion, student make their way through the haunted house by constructing problems to produce given answers. (Apple II, IIe, IIc). 10 pack = \$165.00
- CLOCK** \$39.95  
**Dataflow**  
 This program gives children practice in setting the hands of a clock either given the time digitally or in words. Students are also asked to type the digital time when the hands of the clock show the time. There are five levels of difficulty; hour, half-hour, quarter hour, 5 minutes and 1 minute.
- \*COMPUTER FUN: PRIMARY MATHEMATICS**  
**Diocesan Sp.Ed. Centre** \$50.00  
 This disk contains four different program Number Guess, Australian Quiz, Number Fun and Mumbo Jumbo.
- COMPUTER MATHS ACTIVITIES No's 1 to 5**  
**Addison Wesley** \$66.00 each  
 Activities present practice of a wide variety of mathematical skills for from one to four students. The levels of difficulty of each activity can be varied.
- COMPUTER MATHS GAMES No's 1 TO 7**  
**Addison Wesley** \$66.00 ea  
 Seven diskettes of games provide opportunities for problem solving, skill practice and fact reinforcement for one to four students. The level of difficulty for each game can be controlled to allow for use at a wide range of grade levels.
- COUNTING PLUS** \$59.00  
**Edusoft**  
 A program to develop a knowledge of numbers and how to work with them. The modules include learning to count, addition and addition with carrying.
- DECIMAL DUNGEON** \$59.95  
**Ozisoft**  
 The program covers the four operation for decimals on three different levels.
- DECIMAL SKILLS** \$59.95  
**Edusoft**  
 Skill practise in the four basic operations with decimals.
- DEMOLITION DIVISION** \$49.95  
**Dataflow**  
 Allows students to practice division as players fire cannons to destroy tanks.

- DIVIDING DECIMALS** \$54.95  
**Edsoft**  
 Here's a program which provide practice in dividing a decimal number by a 1,2, or 3 digit number containing a decimal. All numbers and placement of decimals are generated randomly. Using the left and right arrow keys, the student must reposition the decimal point in both the divisor and the dividend. Using the screen as a worksheet, the student does the long division on a step-by-step basis. The cursor locates the placement of each digit.
- DRAGON MIX** \$49.95  
**Dataflow**  
 A dragon protects a city from invaders by correctly answering multiplication and division drill programs.
- EDUCATION CLASSICS** \$25.00  
**Apple Computer**  
 A double-sided diskette containing "Elementary My Dear Apple" on the first side and "The Shell Games" on the other. On the first side, Darts and SuperMath are suitable for primary maths. Darts helps students understand fractions and SuperMath tests basic arithmetic.
- \*EDUCATIONAL GAME PACK #2**  
**Passionfruit Software** \$60.00  
 A menu-driven diskette containing 5 programs. Two of the programs are based on arithmetic, processes game and solo processes. These test the four arithmetic operations. Teachers can select one of up two thirty different combinations to provide drill in specific areas.
- EDUWARE DECIMALS** \$59.95  
**Ozisoft**  
 The decimals program includes conversion, rounding off, percentage and each of the decimal operations. Teacher management is included.
- EDUWARE FRACTIONS** \$59.95  
**Ozisoft**  
 This program covers, definition and parts of the fraction, and each of the operations. A teacher management system is included.
- THE ELEMENTARY MATHEMATICS CLASSROOM LEARNING SYSTEM**  
**Ashtron Software** \$200.00 each  
 There are two sets of programs each containing six diskettes. The first set is called Whole Numbers and covers addition, subtraction, multiplication, division, games and a learning management system. The second set, Fractions/Decimals, covers equivalence, order, addition, subtraction, multiplication, division, decimals, games and the learning management system.
- \*ELEMENTARY MATHEMATICS VOLUME 1**  
**Tasmania Media Centre** \$35.00  
 A package consisting of five activities developed in Tasmania. Monkey is a number practice game, School Bus works with number patterns for whole numbers, Escape is practice with order of operations. Factor Game tests factors and prime numbers. Battleships is an introduction to co-ordinate geometry.

- \*ELEMENTARY MATHEMATICS VOLUME 2**  
**Tasmania Media Centre** \$35.00  
 Four activities introducing fractions and decimals. Kangaroos is based on adding simple fractions. Star Flight uses percentages, fractions and decimals. Hunt the Monsters uses addition, subtraction, multiplication and division of fractions. Dock the Boat requires an understanding of elementary fraction concepts.
- ELEMENTARY VOLUME 1 - GAMES AND DRILL**  
**Seasen Software** \$27.00  
 There are eleven programs on this disk including games of skill, drills on basic facts and the metric system. It includes Hurtle, a grid game, Bagels and Taxman which are logical games.
- ELEMENTARY VOLUME 8 - POINTS AND ANGLES**  
**Seasen Software** \$27.00  
 Includes two tutorial programs to cover points and angles and corresponding quizzes to test the concepts. Points defines points, lines and line segments and then gives a quiz on these concepts. The program Angles, defines rays, angles, degrees and right, acute, obtuse and straight angles.
- ELEMENTARY VOLUME 9 - LINES AND TRIANGLES**  
**Seasen Software** \$27.00  
 The two concepts are covered with a tutorial lesson and quiz. The first, lines defines parallel, perpendicular and intersecting lines. The second, triangles defines scalene, isosceles, equilateral, acute, right, obtuse and equiangular triangles.
- ELEMENTARY VOLUME 10 - QUADRILATERALS, AREA & PERIMETER**  
**Seasen Software** \$27.00  
 The tutorial and quiz on quadrilaterals covers parallelogram, rectangle, square, trapezium, etc. The second tutorial and quiz leads students in the development of formulae for the perimeter and areas of triangles and quadrilaterals.
- ESTIMATE** \$59.95  
**Edusoft**  
 This program is on estimation exercises in addition, subtraction, multiplication division and square roots.
- EXPLORER METROS** \$69.95  
**Edsoft**  
 Students explore a colourful, alien planet while learning the valuable estimation skills of metric capacity, mass, length and temperature. As leaders of an exploration party, students must face randomly generated encounters make decisions and report back to the captain. Speedy decisions are important, since time is counted. Students choose one of three options presented. They must consult a metric table or a robot named Dugan before answering, but if they fail to complete all encounters in the allotted time, they are beamed back to the ship.(Apple II, IIe, IIc). 10 Pack = \$165.00
- FRACTION ACTION** \$59.95  
**Edusoft**  
 Designed to teach fraction concepts. Up to three levels of hints for wrong answers. Suitable for 7 to 14 year olds.

- FRACTION FEVER** \$59.95  
**Imagineering**  
 Fraction Fever is fast-paced game where success depends on a knowledge of fractions. It develops an understanding of what a fraction is, or relationships between different fractions and the relationship between numerical and visual representations of fractions.
- FRACTION FUEL-UP** \$49.95  
**Dataflow**  
 Players must refuel their spaceships in order to complete the journey back to earth, and the only way to do that is to give the correct answer to fraction word problems.
- FRENZY/FLIP FLOP** \$55.95  
**Britannica Education Services**  
 Frenzy is a speed drill program on subtraction and division. Flip flop is for students to determine if two figures are the same, flipped or turned.
- FUNDAMENTAL OF MATHEMATICS**  
**Edusoft** \$399.95  
 A complete program of 89 lessons on basic mathematical problems.
- GET TO THE POINT** \$79.95  
**Edsoft**  
 Three Imaginative games - Point of Order, The Point in Question and Counter Point - expose students to the concepts of order of decimals and help them with basic operations involving decimals.
- Point Of Order, students must find a decimal which goes in between two decimals that the computer provides. As the game continues, the range narrows, forcing students to concentrate on place value. In the Point of Question, students are drilled on addition, subtraction, multiplication and division decimals. Counter Point is a challenge mode for two players in which one player chooses a decimal number, and the other player must guess the number given clues that narrow in on the correct answer. A good search strategy will help the student find the number faster. (Apple II, IIe, IIc) 10 Pack = \$165.00.
- GOLF CLASSIC/COMPUBAR** \$59.95  
**Britannica Education Services**  
 Golf classic allows one to four players to play golf on the screen. Estimation of distances and angles allow the players to move the ball. Compubar allows students to add and subtract bars to match the length of the given goal bar. Skills include reading bar graphs and work with arithmetic expressions.
- GRAND PRIX** \$79.50 each  
**Pitman**  
 The six disks of maths programs based around a car racing game. The programs cover whole numbers, place value, fractions, decimals/percents, integers and estimating/rounding.
- GULP/ARROW GRAPHICS** \$59.95  
**Britannica Education Services**  
 Gulp is a drill program on addition and multiplication. Arrow Graphics is a program where students reprogram a path shown with arrows.

**INTEGERS/EQUATIONS I & II** \$49.95**Dataflow**

A two-disk program introducing students to variables, integers and equations. Students simplify expressions and solve simple linear equations. Suitable for students 10 to 14 years old.

**INTRODUCTION TO MATHEMATICS ON THE COMPUTER****Micro Nationwide** \$49.95

A program designed to help slow learners to increase their mathematical abilities and covers the four arithmetic operations and six levels of difficulty.

**INTRODUCTION TO DECIMALS ON THE COMPUTER****Micro Nationwide** \$49.95

Designed for slow learners. It covers the four operations on decimals at six levels of difficulty.

**LONG DIVISION** \$29.95**Micro Nationwide**

This program teaches, practices, reviews and reinforces the learning of long division principles.

**THE KING'S RULE** \$79.95**Edsoft**

Players try to discover numerical rules that allow them to work their way through a king's castle. Each rule fits a set of three numbers presented by the program - for example, 2-4-6. In this instance, students may come up with the rule; It appears to be counting by 2. However, the real rule may be hidden. In this case it may be "even numbers". Students generate and test a working hypothesis by asking questions, trying out new number combinations and requesting recaps of the data. Six levels of play give students practice in forming and testing increasingly subtle hypotheses. (Apple II, IIe, IIc) 10 Pack = \$165.00

**MATH/ARITHMETIC SKILLS** \$49.95**Imagineering**

Covers counting, addition, subtraction, multiplication and division. The parent or teacher can define the presentation sequence, pass/fail and other parameters.

**MATH ASSISTANT II** \$79.95**Ashtron**

This program covers 20 commonly made student errors in multiplication and division questions.

**MATH BLASTER** \$69.95**Edusoft**

Contains over 600 problems covering addition, subtraction, multiplication, division, fractions and decimals. An easy to use editor allows teachers to enter problems. Questions are presented as flash cards, questions with the answer missing, questions with one of the operands missing and as an invader type arcade game.

**MATH CONQUEROR** \$59.00**Micro Nationwide**

An arcade style arithmetic drill program covers addition, subtraction, multiplication and division.

**THE MATH MACHINE** \$95.00**Science Education Resources**

A multi-skill level of basic mathematics processes in which step-by-step approach individualises lessons to meet each student's need. Appropriate for primary, secondary and remedial students.

**MATH MAN** \$49.95**Ashtron**

A network of beams and ladders where students make decisions about which numbers and arithmetic operation signs should be picked up to help match a target number.

**MATH MARVELS** \$59.95**Edusoft**

This program cover operations with decimals of four decimal place values.

**MATH MASTERS** \$59.95**Edusoft**

A program on fraction and ratio work.

**MATH MAZE** \$59.95**Edusoft**

Practise with mathematical problems as you find your way out of a maze. Over 40 mazes on the disk, The program also has an in-built editor to add your own mazes.

**MATH REGROUPING GAMES** \$138.00**McGraw Hill**

Uses graphics to demonstrate regrouping and renaming skills in addition and subtraction.

**MATH SEQUENCES** \$550.00 or \$44.00 ea**Britannica Education Services**

The Milliken Math Sequences provide a comprehensive maths program on twelve disks covering the sections: number readiness, addition, subtraction, multiplication, division, laws of arithmetic, integers, fractions, decimals, percents, equations and measurement formulas. The material is presented in a logical order, with immediate feedback, reinforcement and help when needed. The package contains a manager program which enables teachers to maintain individual records for up to 100 students on each diskette.

**MATH SKILL GAMES** \$75.00**McGraw Hill**

A maths drill at three skill levels in the four operations.

**MATH WARS** \$60.00**Science Education Resources**

This program has over 35 skill levels in basic mathematical processes and presents these in exciting graphical arcade type games.

**MATH WORD GAMES** \$49.00**McGraw Hill**

A program to build skills in solving math word problems. The program illustrates the problem to be solved - the student determines the correct operation and solves the problem. Reading level is at or below the math content level.

**MATHS CONCEPTS I & II** \$39.95**Dataflow**

A two-disk program covering the number concepts of before-after, prime numbers, less-than/greater-than, place value, odd/even, decimal words, rounding, counting by 2's, 5's and 10's. Suitable for 7 to 11 year olds.

**\*MATHS INVADERS** \$60.00 for 3  
**ARITHMATTACK, FRACTION ATTACK,**  
**ALGEBRA ATTACK** \$20.00 each  
**Simon M & S**

These programs start with Arithmattack which drills arithmetic operations in an arcade style game. Fraction Attack works with fractions, decimals and roman numerals. Algebra Attack seeks solutions to equations.

**\*MATHS MASTER 1** \$39.00**Eureka Software**

The first Maths master package contains five programs. Firstly, Numeral Match in which the student identifies a picture set. Secondly, Match Up in which the student selects the picture set that relates to a given numeral. Third, What Next in which the student configures number lines forwards or backwards. One Two is a tutorial, drill and recall program for addition and subtraction 1 to 10.

**\*MATHS MASTER 2** \$39.00**Eureka Software**

Five activities for infants/primary children. Tally Up and Take Away approach addition and subtraction of single digit numbers in a variety of ways. Zero introduces the concept of zero. Puzzles introduces problem-solving and Where Is It, is a games activity matching like shapes.

**\*MATHVADER** \$25.00**Angle Park Computing Centre**

A arithmetic drill program in which the student stops invaders by typing in the answer to an arithmetic question carried by the invader. The teacher can set the game in +, -, x or division and determine the difficulty of the operands and initial speed.

**METEOR MISSION** \$49.95**Dataflow**

Players shatter invading meteors with the right answers to math or word problems. Teachers may insert their own lists.

**METEOR MULTIPLICATION** \$49.95**Dataflow**

Drills multiplication facts by allowing students to disintegrate meteors moving toward the central station.

**METRIC SKILLS I & II** \$49.95**Dataflow**

This two-disk program introduces metric terminology and relationships. Special math symbols and shapes are available for the teacher to use to modify the lessons.

**MINUS MISSION** \$49.95**Dataflow**

Offers practice in subtraction facts by letting students destroy green blobs using laser beams.

**MISSING MATH FACTS** \$49.95**Micro Nationwide**

A drill program on the four arithmetic operations where part of the question is missing and the answer is given.

**NUMBER QUEST** \$69.95**Edsoft**

Five Programs explore search strategies. Number lines involving whole number, decimals, and fractions require students to use binary search strategies and their knowledge of order of numbers to locate the hidden number. Graphics aid in location of the number. Squares (two dimensional coordinates) add dimension and show the students graphically how the searches locate the number. (Apple II, IIe, IIc)

**NUMBER STUMPER** \$54.95**Ashtron Software**

A game using animated dice to sharpen basic maths skills.

**ORDER OF OPERATIONS** \$54.95**Edsoft**

To teach your students the fundamentals of the order of operations with addition, subtraction, multiplication, division, and parentheses. Options of working with either whole numbers or signed numbers are given. All numbers and operations in the expression are generated randomly and all results are integers. Each expression contain three operations, and one set of parentheses. A typical example would be:  $3*(8-2)/6$ . The student simplifies the expression one step at a time on the screen. All errors are immediately flagged and explained. When the problem has been completed, a summary of the steps in the solution is shown on the screen.

**PERCENTAGES** \$59.00**Micro Nationwide**

A series of three programs providing instruction and reinforcement in solving percentage problems. They include an introduction to percentages, fractions as percentages and finding a percentage of a number.

**\*THE PIE SHOP** \$70.00**Prologic**

Students simulate the operation of a food stall at a football match, making decisions on how much to order, what prices to charge.

**PIECE OF CAKE MATHS** \$37.95**Edusoft**

Designed to teach the basic skills of arithmetic.

**PIZZA FRACTION** \$85.00**Softime**

This program uses inventive and colourful animations to help students learn about fractions. Working in a pizza parlour, they must slice pizzas into a number of parts. There are 5 levels of difficulty catering to primary and remedial groups.

**PLACE-VALUE PLACE** \$45.00**HBS International**

Two different programs, Calculator and AppleJack.

- POWER DRILL** \$69.95  
Edsoft  
A series of four programs which reinforce basic computation but takes the students into estimation and thinking about numbers. Altogether it helps students with addition of whole numbers and integers up to four places. Students are given help and asked to use their estimation skills on higher levels.
- PRIME DUCKS** \$59.95  
Imagineering  
The emphasis of this program is understanding prime numbers, but it also helps with the processes of factoring and multiplications. Two games are included in the package, the first, Multiplication shows how small numbers multiply to make large ones, and the second, The Factoring Game shows how large numbers factor down into prime numbers.
- \*RIME PACK A** \$25.00  
Victorian Government Bookshop  
This program demonstrates that the microcomputer is a useful tool for investigation in real life. The diskette contains programs relevant to computer-specific lessons. Also included is a handbook called Making Sum-Think Happen.
- SALINA MATH GAMES** \$59.00 each  
Micro Nationwide  
Two diskettes of maths games for two players. Most have optional tutorials to familiarise the students with the games. Disk 1 contains round table, panzer problems, bingo and dragon cave. Round table is based on rounding numbers to the nearest tenth, hundredth, thousandth, etc. Panzer problems covers single digit multiplication. Bingo is based on estimating answers to decimal multiplication problems. Dragon Cave requires students to evaluate functions for specific values.
- Disk 2 contains tic tac toe, reduce, spider web and three in a row. Tic tac toe asks students to compare fractions with <, > or = signs. Reduce is based on reducing fractions. Spider Web is finding a fractional part of a number. Three in a row covers changing an improper fraction to a mixed number.
- SEATWORK GENERATOR** \$350.00  
S.R.A.  
Allows exercises to be printed on 316 math skills. Exercises are generated at random. Skills include operations on whole numbers, fractions and decimals, place value, ordering, comparing, rounding, exponents, ratio, proportion, percent, measurement units, formulae, expressions, equations and integers.
- THE SHARK ESTIMATION GAME** \$60.00  
HBS International  
This is a family of activities that exercises the skills of numerical estimations. The program specifies the location of a shark that appears on the screen, a harpoon flies accordingly and either hits the shark or leaves a splash.
- SPACE MATH** \$79.95  
Ashtron  
Practice maths as you shoot at space ships.

- SUBTRACTION MINUS** \$59.00  
Edusoft  
Introduces subtraction and subtraction with borrowing.
- SURVIVAL MATHS** \$69.95  
Edsoft  
Four simulations that require students to use their maths skills as a basis for making sound judgements. Smart Shopper Marathon - students try to figure out the best buys, using such aids as unit prices and percent discount. Hot Dog Stand - students run a hot dog stand at the schools football game to raise money. They purchase food and set prices on the basis of anticipated crowd size and weather. Travel Agent Contest - students plan a 7-day, 6-night trip without exceeding a prescribed spending limit. Money must be allocated for transportation, meals lodging and special events. Foreman's Assistant - students help plan a playroom and buy materials for building it while keeping within a specified time-frame and budget. Covers such concepts as area perimeter and units of measure. (Apple II, Iie, Iic) 10 Pack = \$165.00.
- TRAP-A-ZOID** \$49.95  
Edusoft/Ozisoft  
A geometry game that involves the differences between various shapes.
- USING A CALENDAR** \$39.95  
Dataflow  
Each lesson presents a picture of a calendar with questions about the display. All lessons are modifiable and teachers may create their own lessons.
- \*WHAT'S THE TIME MR WOLF** \$24.50  
C.A.R.E.  
A program to help children tell the time which is displayed on a clock face and the child selects the correct time from one of four options. Five levels of difficulty are in-built.
- WIZ WORKS** \$49.95  
Dataflow  
Students practice basic arithmetic skills with a wizard with a magic wand. Teachers may insert their own game lists in this program.
- WIZMATH** \$49.95  
Imagineering  
Reinforces maths skills from addition to algebra. The object of the game is to form true mathematical equations by moving blocks with numbers and symbols into a meaningful order.

## 23. READING

Many of the programs listed in the Creative Writing may be used by teachers to stimulate reading either by writing stories themselves or allowing groups of children to write stories to be read and discussed by other groups in the class. The programs listed in this section are those which could be used to stimulate reluctant readers.

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- THE ADVENTURES OF SINBAD** \$59.95  
Edusoft  
Over 600 reading and comprehension and synonym/antonym questions based on the built-in glossaries are contained in this program, which as the name implies has a thematic basis.
- ALPHABETIZING/SCRAMBLE WORDS** \$59.95  
Edusoft  
Utilizing a large grid, it gives the players the opportunity to place words in alphabetical order. Four levels of difficulty. Can be printed.
- AUSSIE FredWRITER** \$15.00  
Miller Computer Centre  
This program serves as an introduction to the Keyboard Connections network of schools both in Australia and overseas. Students can utilise this program and then Keyboard Connections (described elsewhere) communicate their ideas to other schools in the network.
- BOPPIES GREAT WORD CHASE** \$39.95  
Dataflow  
This is a game of word recognition, word creation and spelling. There are 256 built in words though teachers may individualise lists. Students move Boppie around a maze, gathering letters in the correct order to spell out words. 8 levels.
- BUILD A BOOK ABOUT YOU** \$59.95each  
Edusoft  
With only a few key strokes you can create a personalised adventure story book. Story disk 1 is called Adventures on Riddle Planet while disk 2 is called The Greatest Circus Story Ever Told. This program is a good introduction for young children into creative writing. Refill kits cost \$39.95
- CAUSE AND EFFECT** \$79.95  
Edusoft  
While embarking on a mountain climbing expedition, players wind in and out of paths leading to the top of the mountain. Landing on specially designated spaces gains the players an opportunity to answer questions concerning cause and effect relationship. Program output can be printed.
- CHALLENGE** \$49.00  
C.A.R.E.  
A program developed to help encourage reading amongst primary age children. Educationally sound and developed by a group of primary teachers.

- CHEMISTRY ADVENTURE** \$50.00  
HBS International  
The periodic table of elements becomes a neighbourhood and the elements are all people with appropriate personalities. The players are detectives who must collect clues to solve the mystery of the silver disappearance.
- CHILDREN'S STORYDISK SETS** \$49.95  
Grolier  
These electronic books invite student involvement in many challenging activities.
- COMPU-READ 3.0** \$49.95  
Edusoft  
Four learning modules develop and strengthen reading skills such as letters, words, synomyns, antonyms and sentences.
- \*COMPUTER FUN: Disk 1** \$50.00  
Diocesan Special Educ Centre  
Mumbo Jumbo is a reading game on the disk requiring the skill of sequencing. The teacher inserts the reading content. The sequencing may be based on words, paragraphs or a series of sentences or even a set of letters to be sequenced alphabetically or a list of words into alphabetical order.
- CONTEXT CLUES** \$79.95  
Edusoft  
A player attempts to uncover a hidden treasure by winding in and out of paths leading to four different treasure sites. When landing on designated spots, the players have a chance to define a word taken from a short reading selection. Program can be printed.
- \*DECIDE YOUR DESTINY 1,2 & 3** \$49.50  
C.A.R.E.  
The package is designed to provide an integrated reading package for year 4 to 6 children. Each story has an accompanying set of pictures which can be used in a variety of ways and the documentation provides many ideas for their use. The titles of the first three of these programs are "The Mysterious Tunnel", "Yellow Beard" and "Strange House, Little Mouse".
- \*DIRECT HELPER** \$450.00  
Dataflow  
The Direct Helper scheme is a way of helping students of all ages with reading difficulties to learn to read. The program aims to establish word-decoding, story reading and spelling skills. There is also special emphasis on the left to right sequencing of letters and words. Any number or new word lists and stories can be entered into the computer by the parent or teacher. Once the material has been prepared for use, the student can operate the computer largely on his own.
- HEY DIDDLE DIDDLE** \$49.95  
Edusoft  
Continuous display of 30 rhymes with pictures and music. Allows beginning readers to see each rhyme formed in slow motion with words and pictures. More advanced children can unscramble the eight-line nursery rhyme against the clock or another player.

**\*HIDE 'N SEQUENCE****\$79.95****Edusoft**

This thought provoking language game exercises sequence skills in reading and writing. Three cartoon-like storytellers present students with a choice of three sentences. Students must pick the sentence most likely to come next in variety of writings. They can experiment, change their minds and rearrange their sentence choices at will. When they're ready, they can use the built in word processor to type their own writings for use in the game. Students may test their own stories, rearrange sentences and challenge each other.

Hide 'N Sequence is available in two packages; one for Elementary (grades 3-5) and one for Middle School (grades 5-8). There are 12 original selections in each package, which were chosen from current literature to reflect the four modes of discourse; narration, description, exposition and persuasion. (Apple II+, IIe, IIc).

**THE HOBBIT****\$69.95****Edusoft**

Become part of the story playing the part of Bilbo, and see the world through the hobbit's eyes as they roam freely through Tolkien's enchanted land

**HOW TO READ IN THE CONTENT AREAS****Micro Nationwide \$229.00**

There are four different packages for each of the content areas: Science, Social Studies, Literature and Mathematics. The concepts taught include spotlighting, surveying, detecting, recalling and utilizing. These programs are suitable for late primary or remedial work in the secondary school.

**\*M-SS-NG L-NKS****\$79.95****Edusoft**

A passage from an outstanding selection of writing - appears with certain letters missing. The pattern of missing letters varies, providing over 500 different puzzles. Students fill in the blanks by making educated guesses based on their built-in knowledge of word structure and spelling, grammar, meaning in context and on their sense of literary style. Choose from these diskettes.

**Young People's Literature (\$79.95)** - Offers passage from nine classics of children's literature such as The Secret Garden and The Wind in the Willows.

**MicroEncyclopedia (\$79.95)** - Fascinating pot pourri of factual information, from ice cream, elephants and airplanes to bicycles, sharks and whales. Perfect for grades 4-8.

**Classics, Old and New (\$79.95)** - Eighty-one passages from Hemingway, Thurber, Shakespeare, Freud, Solzhenitsyn, Dickens ... and more.

**English Editor (\$89.95)** - Enables you to tailor the game to your students' interests and needs by entering passages of your own choice, or a student can start playing with the sample passages already in the game.

**MAGICAL MYTHS****\$59.95****Edusoft**

Consists of 5 modules, over 1000 comprehension questions. Create your own myth and related questions.

**MICROSPEEDREAD****\$99.00****Edusoft**

Shorten your reading time and increase comprehension.

**MICROZINE #1****\$49.95****Ashtron Software**

One of the four programs on this diskette is a Twist-a-Plot story which is an adventure about a haunted house with delightful illustrations and several different endings. There is also the chance to interview Robert McNaughton who played Elliott's older brother in the film E.T. in the program "Ask Me".

**MICROZINE #2****\$49.95****Ashtron Software**

Two of the four programs on this diskette could be used for reluctant readers. The first, Northwood Adventure is another illustrated Twist-a-Plot story. The second is called Ride the Wind, and teaches the student how to pilot a hot-air balloon and then lets them compete in a race.

**MICROZINE #3****\$49.95****Ashtron Software**

The story in this issue is called "Mystery at Pinecrest Manor". The story revolves about a stolen gold statue with the user solving the crime. One of four programs on the diskette.

**MICROZINE #4****\$49.95****Ashtron Software**

The Twist-a-Plot story on this diskette is called "Adventures in the Microzine" in which you become smaller than a microchip.

**MICROZINE #6****\$49.95****Ashtron Software**

Fossils Alive, is one of four programs included in this package is an interactive Twistaplot in which children search for fossils with a classmate, Dyna Saurus, and find out just how different their community looked in prehistoric times. Other programs on this diskette include Olympic News, Free Store and Sound Off!

**MURDER BY THE DOZEN****\$34.95****Edusoft**

Challenging game of logic and deduction for mystery buffs of all ages.

**MYSTERY SENTENCES****\$49.95****Ashtron**

There is a mystery sentence on the screen, but parts of it are missing - only the vowels have been revealed. Students must decipher the sentence in as few tries as possible, using the minimum amount of clues.

**NAVIGATION ADVENTURE****\$50.00****HBS International**

This program includes two adventures in which writers must make choices as they try to navigate their way through two very different imaginary worlds, "Mean Streets" in New York City and the "High Seas" of the South Pacific.

**OUR WIERD AND WACKY WORLD****Micro Nationwide \$59.95 each**

Two sets of eight short stories suitable for years 3 to 4 followed by word meaning and cloze practice. The print exercises provide comprehension and decoding skill exercises.

**OUR WILD AND CRAZY WORLD \$59.95 each****Micro Nationwide**

Two sets of eight short stories followed by word meaning and cloze practice. Print material provides follow-up practice for each story. The reading level of these stories is years 4 to 5 but the interest level is that of junior secondary making them suitable for remedial work.

**PLANETARY ADVENTURES \$50.00****HBS International**

This program combines reading and writing in an interactive adventure through space. The writers blast off in a rocket through space and are given the options of a number of different space adventures on the way to the planet Zeron.

**READABILITY FORMULAS \$49.95****Britannica**

This package provides readability estimates using the following methods: Fry, Flesch, Fog, Smog, Dale-Chall, Spache and Raygor.

**READER RABBIT \$54.95****Ashtron Software**

A program to develop reading and vocabulary skills for the 5 to 7 year old.

**READING COMPREHENSION 1 \$79.95****Edusoft**

Recognising topic sentences, listing supporting details, summarizing main ideas, choosing titles and evaluating details.

**READING COMPREHENSION/WHAT'S DIFFERENT****Edusoft \$49.95**

Select the word that doesn't belong in the series. Analytical skill and reading comprehension are the keys to mastering the challenge.

**READING FOR DETAIL/RACE TRACK****Edusoft \$79.95**

Compete in a horse race, answer questions on who, what, where and when on the way. Program can be printed.

**\*REMEDIAL READING PROGRAM****Send disk + \$5****Gainford, Mr M.**

Allows any text file up to 200 words produced by a word processor to be displayed at varying speeds. Simple students records are stored and may be viewed by the teacher in table or graphical form.

**RHYMES AND RIDDLES \$49.95****Edusoft**

This is a three-letter guessing game presented in three different formats: Jokes, Nursery Rhymes and Famous Sayings.

**RHYMING TO READ \$179.95****Grolier**

Uses the concept of rhyme to teach the entire 600-word vocabulary emphasized by basic textbooks. Includes black-line masters for review and a teacher's guide. Additional data disks are available at \$44.95 each.

**SEQUENCE/WHAT COMES NEXT \$79.95****Edusoft**

Arrange short reading selections by topic and organise the groupings of paragraphs in proper sequential order.

**SMART EYES \$59.95****Addison-Wesley**

Increase reading speed and comprehension. Concentrates on physical aspects of reading: eye movement exercises, paced reading and eye fixation exercises.

**SPEED READER 11 \$104.95****Edusoft**

Complete speed reading program featuring peripheral vision exercises, column reading training, timing speed, comprehension tests and easy to use editor for your own data. Additional data disks available at \$39.95 each.

**SUCCESS WITH READING \$59.95****Ashtron**

Presents high-interest passages with selected words and letters missing. To complete the passages, students draw on context, syntax, spelling and vocabulary clues.

**\*TAKE A HOLIDAY \$70.00****Prologic**

Take a holiday focuses on developing writing and reading abilities. The children follow an Australian outback holiday story on the computer screen, making decisions about what should happen next. During the story the children are asked to name characters and must insert substantial amounts of their own text, then they write their own ending. Each child's story may be printed.

**TALES FROM THE ARABIAN NIGHTS****Ozisoft \$59.95**

This program has many features including a 600 multiple choice fill-in reading and vocabulary questions on the flip side. Tale Maker enables students to create their own imaginative stories, while Quiz Maker is an authoring system to create their own questions and answers about their stories. The disk also has a graphic.

**TALES OF ADVENTURE \$29.95****Ashtron**

Two exciting twist-a-plot adventures that take the student into different worlds.

**TALES OF DISCOVERY \$29.95****Ashtron**

Two twist-a-plot adventures that allow the student to choose danger, chance, humour and excitement.

**TALES OF MYSTERY \$29.95****Ashtron**

Two twist-a-plot stories let students plot decisions and solve mysteries every step of the way.

**TELARIUM SERIES OF ADVENTURES****Computer School Service** \$60.00 each

These Hi-Res adventures encourage students to become involved in stories written by famous authors. Titles include: AMAZON, DRAGONWORLD, FAHRENHEIT 451, SHADOW KEEP, NINE PRINCES IN AMBER and PERRY MASON: THE CASE OF THE MANDARIN MURDER.

**THAT'S MY STORY** \$79.95**Dataflow**

This program motivates and encourages young children and reluctant writers with either "story starters" or "what if" suggestions. The program has a special branching feature that helps students to build upon the creative talents.

**THE THREE BEARS** \$55.00**HBS International**

The classic fairytale comes to life, with bold, bright, colourful graphics and responsiveness between child and story that reinforces involvement and learning. The player directs the progress of the tale, whose chair Goldilocks sits in, whose porridge is eaten and allows the choice of three different endings.

**TIME CAPSULE/READING SKILLS****Edusoft** \$79.95

Players travel through time and answer questions that cover detailed aspects of reading. Lets you add your own stories. Automatic record keeping. Program can be printed.

**\*ZAP READER** \$20.00**Chopping Software**

This program allows text to be analysed for readability. The computer will count the words, syllables, sentences, polysyllabic words, average sentence length, average number of syllables per 100 words, average number of sentences per 100 words and give FRY's readability test, FOG index and SMOG grading. It allows Cloze examples to be produced automatically or with the teacher selecting the words to omitted.

**24. SCIENCE**

To assist teachers with the selection of a science program, this section has been divided into five subheadings:

- A) General
- B) Biology
- C) Chemistry
- D) Geology
- E) Physics

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**A) GENERAL****APPROXIMATION, ESTIMATION & STANDARD FORM** \$75.00**Heinemann**

This program is to develop mathematical skills. Randomly generated questions are presented in the chosen subject area. The level of difficulty may be adjusted.

**ASTRONOMY: STARS FOR ALL SEASONS****Micro Nationwide** \$59.95

This program allows users to view constellations in the northern hemisphere and observe seasonal changes. A section provides a graphic explanation of why we see different stars at different latitudes and at different times of the year.

**\*CLASSIFICATION GAMES** \$48.00 ea.**Gemini Software**

**ANIMALS** - Student practice of classification by asking questions to identify an animal, insect, bird, etc from a list of 36 vertebrates and invertebrates.

**GENERAL** - Allows a teacher to establish a list of questions, and sets of answers, to enable students to identify mystery items, be they chemicals, countries or foods.

**\*DESIGNING AN ENERGY-EFFICIENT HOUSE****Prologic** \$70.00

This program allows students to design and construct a theoretical house, making decisions on materials to be utilized and location of the house. Assessment of energy requirements is then computed for student analysis.

**DISCOVER: A SCIENCE EXPERIMENT****Edsoft** \$69.95

You are one of the country's top scientists. Your specialty is the study of strange life forms. A recent space probe has just brought back several new creatures. It is your job to keep the life forms alive as long as possible. But what do they need for their existence? What food do they eat? Are there elements in the environment in which they cannot survive? Can all the forms exist together or must they be separated? You bring them into the lab one at a time and set up experiments to collect data on each creature. Your skill depends on your ability to form and test hypothesis and collect data. (\$165 for 10 Pack)

**ECOLOGICAL MODELLING** \$110.00**Science Education Resources**

Techniques for modelling ecological systems and processes. By controlling initial population, growth rate and length of the simulation, students may test hypotheses and predict results about ecosystems.

**EXPERIMENTS IN SCIENCE** \$575.00**Softime**

The computer is used as a laboratory tool as students carry out 12 experiments in Biology, Chemistry, Physics, Earth and Planetary Science.

**FAMOUS SCIENTISTS** \$49.95**Dataflow**

This program encourages students to learn about famous men and women who have made major contributions to the field of science. Students buy information until they can discover the identity of the scientists. Information is kept on 50 scientists on the disk. Single or multiple user.

**FRIENDLY FILES** \$14.95**Grolier**

Datadisks for Grolier's database, "Friendly Filer". The files contain general and specific facts on: **Science and Nature** - basic knowledge of animals, insects, the earth, the solar system, etc.

**THE HALLEY PROJECT** \$79.95**Edusoft**

The Halley project provides the user with an understanding of the solar system by a real time simulation and a series of tests. It includes facts on Halley's Comet and its orbit, gravity, atmospheric conditions, orbital motion, the relative size, position and orbit of planets and moons; the location of constellations and how eclipses work.

**MECC SCIENCE - VOLUME 2** \$27.00**Seasen Software**

**PEST** deals with the use of pesticides.  
**CELL MEMBRANE** in which the user takes the part of a cell.

**SNELL** plots light refraction demonstrating Snell's law.

**COLLIDE** simulates the collision between two bodies.

**DIFFUSION** deals with the diffusion rates of various gases.

**NUCLEAR SIMULATION** shows the radioactive decay of nine different radioisotopes.

**ICBM and RADAR** teachers angles and projections on a coordinate system.

**MECC SCIENCE - VOLUME 3** \$27.00**Seasen Software**

**FISH** shows the circulatory system of a fish.

**ODELL LAKE** explores food chains.

**URSA** concerns constellations.

**QUAKES** simulates earthquakes.

**MINERALS** can be used to identify 29 minerals by having students perform simple tests.

**MECC SCIENCE - VOLUME 4 \$27.00****Seasen Software**

These programs were designed for teacher demonstrations of solubility, gas laws and electrical charges. DEFINITION, SOLUBILITY PRODUCTS and PRECIPITATES cover solubility. The gas law programs are CHARLES' LAW and BOYLE'S LAW and ELECTRON CHARGE is based on the Milliken Oil Drop experiment.

**MICROCOMPUTERS IN SCIENCE TEACHING****Heinemann \$49.50**

This package contains all the major programs from the book of the same name by R.A. Sparkes. Many of the examples use fast machine code graphics. This diskette may be used in conjunction with the book but may also be used independently in the teaching situation.

**PARTS OF THE MICROSCOPE \$34.95****Micro Nationwide**

Teaches the student to identify various parts of a microscope.

**PHYSIOLOGICAL SIMULATION \$75.00****Heinemann**

In this simulation the user acting as the brain has to keep the body alive while performing a series of physical activities. The sex, age, weight, vital capacity and blood volume are determined and then the user can vary the rate of breathing, breath volume and the sweating rate while the body performs up to three activities from a list of ten activities.

**PLANETARY CONSTRUCTION SET****Edsoft \$69.95**

Planetary Construction set is a graphics packed simulation that combines astronomy, physics and biology with experimentation, scientific measurement and classification skills. Students first experiment with astronomical factors that affect the characteristics of planets. They then use what they've learned to create planets for specific life forms. Finally, they combine their accumulated knowledge and skills to explore other solar systems in search of a planet on which their creatures could live. The program provides three levels of difficulty, each with interactive tutorials on scientific facts and experiments used in the program. (\$165 for 10 Pack)

**RKINET - REACTION KINETICS \$55.00****Edward Arnold**

This simulation allows the student to investigate typical experimental results to discover about first and second order reactions, rate constants, concentrations and the effect of the variation of temperature.

**SCALES \$75.00****Heinemann**

This program allows practice with readings on various devices, including the thermometer, measuring cylinder, burette, ammeter, stop-watch, vernier scale or micrometer screw gauge.

**SCHOLASTICS PFS: DATAFILES****Ashtron \$100.00 each**

These datafiles require PFS: FILE to operate, they are a collection of data on:

**Life Science** - two disks containing three data files on Animals, Animal Biological Systems and Drugs.

**Physical Sciences** - two disks containing three data files on Chemical Elements, Common Substances and Chemical Tests. The activities sheets require students to build their own data files on Glues and Adhesives, Stains and Solvents and Real Life.

**SCIENCE TOOLKIT \$79.95****Edsoft**

Science toolkit allows the user to perform realistic scientific experiments with four separate scientific instruments including a timer, thermometer, light meter and strip chart recorder. The light and temperature probe connect to an interface box and then to the joyport. The manual includes dozens of documented experiments.

**THE SECRETS OF SCIENCE ISLAND****Grolier \$54.95**

Students explore Troll Forest researching science facts as they explore. Three different levels of difficulty, and up to 30 students can play at once.

**SIR ISAAC NEWTON'S GAMES \$69.95****Edsoft**

In Sir Isaac Newton's Games, the complex formulas that govern motion are recreated in simple, easy-to-understand games. Even very young children can comprehend the basic concepts of motion as developed by Sir Isaac Newton. Student begin by trying to move an object around a track. They must determine whether to kick the object or let it coast. The track can be placed on earth (on either ice or sand) or near the sun or out in space. The effect on motion of each of the environments can be studied. Once the track is mastered, students will find additional challenges in a maze and an obstacle course, or they can play tag or manipulate the object to write their name. (\$165 for 10 Pack)

**SPOTLIGHT \$75.00****Apple**

Includes two programs requiring paddles or a joystick which provide a game format for the study of reflection of a light beam by a mirror.

**STAR SEARCH \$49.95****Dataflow**

As a captain of a spaceship setting out to investigate outer space, you explore earth scienc and astronomy techniques. The program caters for 4 players at 3 different levels.

**TRAVELING THROUGH THE SOLAR SYSTEM****Dataflow \$66.00**

Students occupy leadership positions within the Solar Space Centre and set off on vicarious journeys into outer space to locate and collect samples or information for further scientific study at the Space Centre.

**\*VOLAB - ACID-BASE TITRATIONS****Science Education Resources \$55.00**

These programs allow the user to control a number of parameters and plots pH versus Volume of Titrant curves for seven acid-base titration systems. The package contains a comprehensive User Guide suggesting a range of activities and a diskette.

**WEATHER \$59.95****Micro Nationwide**

Three programs explore the major elements of weather including temperature, humidity and air pressure. The programs introduce the tools of meteorology, including the workings of the thermometer, barometer, anemometer and wind vane.

**B) BIOLOGY****BIOFEEDBACK MICROLAB \$575.00****Softime**

Students conduct their own biofeedback experiments and explore the possibilities of stress reduction through the control of physiological functions. Probes read data into the computer, they measure pulse rate, galvanic skin response, electromyograph and skin temperature. The program provides immediate feedback based on the student's own physiological functions and they are able to study the effects as they can see their muscle tension graphically displayed.

Package includes disk, user manual, probes, computer connections, interface and cables.

**BIOLOGY \$97.50 each****Britannica**

**THE CELL:** cell theory, construction, organelles and history. Prokaryotic cell, eucaryotic plant and animal cells, Viruses.

**ENERGY & LIFE:** explore biological energy, reactions, enzymes, photosynthesis and metabolism.

**GENETICS:** Classical and molecular genetics.

**BIOLOGY \$69.95 each****Edusoft**

**1. Respiration** - anatomy of the respiratory system, mechanics of breathing, oxygen transportation and respiratory problems.

**2. Digestion** - nutrients, digestive system

**3. Reproduction** - male and female reproductive system, embryonic development to adulthood.

**4. Circulation** - blood, heart, vessels, circulation and circulatory problems.

**BIOLOGY: \$72.50 each****Mastery Education**

**CELLULAR REPRODUCTION:** This program consists of two sections mitosis and meiosis. The program starts with a review of the relevant cell structures, followed by: an animated demonstration of the processes of cellular reproduction and a step-by-step introduction of the names for the various stages of mitosis and meiosis. The lesson material is followed by two tests.

**MENDELIAN GENETICS:** The first of the two lessons covers dominance, genes, phenotypes and genotypes. Monohybrid crosses are demonstrated. Hypotheses are

explored that explain the phenotype ratios in successive generations, and one of Mendel's classic experiments is simulated and analysed, followed by a short pictorial quiz.

**\*BIOQUIZ -MC \$55.00****Science Education Resources**

A resource of over 100 multiple questions on biology items organised into a number of topics. Select up to 5 questions per topic. Printer option. Multi-pack \$110.00.

**\*BIOQUIZ -TF \$55.00****Science Education Resources**

A resource of over 360 true/false questions on biology items organised into a number of topics. Select up to 10 questions per topic. Printer option. Multi-pack \$110.00.

**\*BIRDBREED \$65.00****Science Education Resources**

Allows investigation of genetic principles involved in the inheritance of colour variants in the budgerigar. The first of the four levels deals with monohybrid inheritance. Other concepts are introduced in the higher levels. These include incomplete dominance, sex linkage, multiple alleles, dihybrid crosses, gene interaction and linkage. A detailed Teacher Guide and Student Guide are included. Multi-pack \$130.00 includes 4 disks and 2 sets of documentation.

**BIRDS OF ANTARCTIC DATA BASE****Information Technology \$35.00**

Contains a set of 636 observations of seabirds seen during an Australian National Antarctic Research Expedition voyage between November and December 1982. Students will be able to make hypotheses and then examine the evidence to test their validity. The package provides several different ways of presenting the information. Data may simply be displayed or be shown using one of three graphing options.

**THE BODY TRANSPARENT \$69.95****Edusoft**

This program allows students to pull apart a human body in order to examine and learn about the different organs and bones. Move them around and put them back in their correct location.

**\*CATLAB \$90.00****Science Education Resources**

A genetics simulation allowing students to mate domestic cats selected by coat colour and pattern. The program produces genetically valid litters of kittens based on these matings. Several sample investigations are suggested in the Student Guide. The package contains the Student Guide, Instructor Guide, 8 slides and diskette.

**CELLS and TISSUES \$59.95****Micro Nationwide**

There are two programs on the diskette suitable for grades 3 to 9:

**Basic Cell Structure** - the basic parts of a cell are introduced including cell membrane, cytoplasm and nucleus. In the graphic presentation small particles are shown to pass through a cell membrane while larger particles are kept out.

**Cell Division (Binary Fission)** - cell reproduction by binary fission is explored in a step-by-step animated view of mitosis, cell membrane expansion and pinching together to form two daughter cells.

#### CLASSIFICATION OF LIVING THINGS

**HBS International \$45.00**

A program for grades 7 to 10 that begins with an analogy which illustrates the need for classification and then a brief history is presented. The program also includes two special features: a classification "bank", and a glossary. The "bank" includes common as well as unusual plants and animals for easy reference and a detailed dichotomous key with an explanation of how to use it. The glossary contains all the words introduced in the program and may be accessed at any time.

#### \*COMPETE - PLANT COMPETITION

**Edward Arnold \$55.00**

This simulation allows students to study competition between barley, oats and tall and dwarf peas during the second and third months of their development. Both inter and intraspecific competition can be studied and the results compared with real experimental data.

#### \*COEXIST - POPULATION DYNAMICS

**Edward Arnold \$55.00**

A simulated study of population growth curves of either different species competing for limited resources or single species growing in isolation.

#### DISCOVERY LAB \$90.00

**HBS International**

Students design and observe their own experiments and form hypotheses as they try to determine the characteristics of imaginary organisms. The level of difficulty increases as does the amount of student control over the experiments.

#### \*DROSOPHILA GENETICS \$49.95

**Britannica**

This graphics program is a breeding simulation program. It allows students to carry out experiments in the breeding of the drosophila fly in the classroom.

#### ENZKIN - ENZYME KINETICS \$39.95

**Edward Arnold**

Allows the student to plan and interpret the results from a wide range of simulated investigations.

#### \*EVOLUTE - EVOLUTION AND NATURAL SELECTION \$55.00

**Edward Arnold**

This simulation allows the student to investigate many generations under different selection conditions in a short period of time.

#### GENE MACHINE \$55.00

**Science Education Resources**

This program allows for interactive investigation of base pairing and contains a section on DNA and RNA. The second section allows students to enter in RNA codons and to synthesize a polypeptide chain.

#### HEART LAB \$49.95

**Micro Nationwide**

This program uses animated graphics to produce a simulation of the heart in action. The program is divided into three sections:

**Tutorial**- identify locations of the various chambers and vessels.

**Drill**- student identifies the chambers and vessels.

**Pulse Simulation Exercise**- demonstrates how the heart responds to work.

#### \*HEREDITY DOG \$60.00

**Science Education Resources**

An introduction to the principles of inheritance designed for both Junior and Senior secondary. The program includes a tutorial and five single-gene and five two-gene simulations. May also be used to study the binomial theorem and probability in Mathematics.

#### \*HOW MANY \$70.00

**Prologic**

Experiments in calculating animal abundance. The program simulates two counting methods of aerial survey and capture - recapture.

#### LNKOVR - GENETIC MAPPING \$55.00

**Edward Arnold**

The student specifies a series of genetic crosses and from the resulting data builds up a linkage map for ten genes of a hypothetical diploid species using the three-point testcross technique.

#### \*PEA PLANT GENETICS \$49.95

**Britannica**

This program, using graphics, shows students a random selection of plants in a number of different generations. The program simulates the development of the selected plants in the following generations.

#### OSMOTIC PRESSURE \$75.00

**Science Education Resources**

A package to explore osmosis and osmotic pressure. The first program includes several simulations using a computer graphics thistle tube. The second program is an animation of a molecular model for osmosis.

#### \*WOODLAND FOODWEBS \$70.00

**Prologic**

This Biology program allows students to construct a foodweb using Australian animals, and to investigate their interaction over a 15 year period.

#### C) CHEMISTRY

##### AIR POLLUTION \$59.95

**Edusoft**

Assume the role of an environmental planner and experiment with the effect of pollution.

##### CHEMICAL ELEMENTS \$49.95

**Dataflow**

Students select a series of clues which help them decipher the right element.

#### \*CHEMICAL EQUILIBRIUM AND THE HABER PROCESS \$39.95

**Chemistry Associates**

This program uses high resolution graphics and animation to illustrate the nature of dynamic equilibrium in a chemical system. The program also shows the application of the equilibrium law to determine equilibrium constants and equilibrium concentrations. A short test is added at the end of the program, the results of which are stored on the diskette and may be accessed by the teacher at a later time.

#### CHEMICAL NOMENCLATURE \$100.00

**Mastery Education**

This package consists of four programs. Firstly, Organic Compound Nomenclature displays a choice of nine different types of organic compounds (e.g. alkene, aromatic, ester, amine, etc. Hydrocarbon Nomenclature, randomly creates alkalines and asks for the IUPAC name. Inorganic Nomenclature (name to formula the student is given the name of a binary compound or acid salt, and must type in the formula. Inorganic Nomenclature (formula to name), the student is given the formula and must type in the name of the compound.

#### CHEMISTRY - ACID & BASES \$49.95

**Britannica**

This program calculates the pH values, determines concentration of hydrogen ions and titration values.

#### CHEMISTRY ADVENTURE \$65.00

**HBS International**

The Periodic Table of Elements becomes a neighborhood and the elements are all people with appropriate personalities. Students are detectives who collect clues to solve the mystery of Silver's disappearance.

#### CHEMISTRY: FORMULAE AND NAMES OF INORGANIC COMPOUNDS

**Micro Nationwide \$49.95**

This program allows the student to name a compound, give a formula, or write the formula. The full list of symbols and valences can be called up whenever the student needs it. All problems are randomly generated, and a management system keeps track of students' scores.

#### CHEMISTRY - STOICHIOMETRY \$49.95

**Britannica**

The computer generates a random series of problems varying the coefficient, chemical and compounds. Calculate thermal equations, determine amounts of gas produced, gram-mole conversions in different level of difficulty.

#### \*CHOLESTEROL \$55.00

**Science Education Resources**

This program incorporates a database of cholesterol content of over 250 Australian foods, including take-away foods. Users can check cholesterol content of a food and enter a diet for analysis. After entry, diets may be modified by adding or deleting food items. The user guide includes materials that cover aspects of blood cholesterol levels and good nutrition and provides a context in which the program can be used.

#### ELEMENT HUNT \$40.00

**Nelson**

Element Hunt is a game for students first learning the periodic table. The program can be played at five different levels. The objective of the game is to identify the three chosen elements in the least number of tries. Package comes with a backup, instructions and black-line masters.

#### \*GALVANIC CELLS \$39.95

**Chemistry Associates**

This program uses high resolution graphics and animation to study all of the possible galvanic cells. The interior of the dry cell is examined and the student writes the anode and cathode reactions with prompting from the program after 3 incorrect attempts. The lead-acid accumulator in both the discharging and recharging conditions is studied. The hydrogen/oxygen fuel cell and the E conventions is introduced to predict whether redox reactions will occur.

#### GAS LAWS & KINETIC MOLECULAR THEORY

**Mastery Education \$143.85**

**Boyle's Law** - A simulated experiment.

**Charles' Law** - A simulated experiment.

**Gas Law Drill** - Provides drill in mathematical and non-mathematical gas law problems.

**Equilibrium** - To learn how temperature and pressure affect the equilibrium.

#### HYDROGEN SPECTRUM \$75.00

**Heinemann**

The two programs in this package provide a dynamic model which may be used to illustrate the line emission spectrum of atomic hydrogen.

#### \*IDGAME - ORGANIC CHEMISTRY

**Science Education Resources \$115.00**

This game allows students to practice strategies for identifying organic compounds. The program is based on a data base of 41 test results for 33 organic compounds. The instructor selects compounds from the data base and assigns them as unknowns to obtain simulated laboratory test results. The program keeps track of the test students request, thus allowing the instructor to audit the students' use of the program. Includes Instructor Guide, Student Guide and diskette.

#### THE INCREDIBLE LABORATORY \$69.95

**Edsoft**

Imagine a beaker filled with a bubbling solution and a list of "crazy chemicals" to add to the mixture. Each chemical produces specific features of the monster... from lizard feet to scaly body, furry arms, and mummy legs. All chemicals can be combined to form even more variations. The students job as a Novice Apprentice or Scientist is to discover, through trial and error, each chemicals effect. In higher difficulty levels, chemicals effect changes every time the program is run. (\$165 for 10 Pack)

#### INTRODUCTION TO BIOCHEMISTRY

**Micro Nationwide \$59.95**

This program reviews and reinforces chemistry concepts necessary for an understanding of

biochemistry. A management system keeps track of the students progress. Matter, elements, atoms, symbols and compounds are explained. This program also includes laboratory simulations and a glossary.

**\*PRECIPITATION REACTIONS \$39.95**

**Chemistry Associates**  
This program covers precipitation reactions of 27 positive ions, 15 negative ions, 84 precipitates and 45 coloured solutions. Students are introduced systematically to the rules for solubility and are given diagnostic tests both on the rules and the precipitate colours. Students do an achievement test of 10 items taken from a bank of 55 items. The teacher has access to all data used by the student via either the screen or a printer.

**MODELLER: MOLECULAR DESIGN EDITOR**

**Nelson \$75.00**  
This program allows students to create, display, manipulate, edit or print 3-D views of molecules views of molecules by simply typing the line structure formula following normal chemical conventions. The model displayed is the chemist's ball-and-stick type draw in full three-dimensional perspective.

**SYMBOLS TO MOLES \$75.00**

**Heinemann**  
This program has 14 levels, from questions requiring simple recall of chemical symbols and valency, through deduction of chemical formulae, equation writing to the calculation of numbers of moles of substance in a given mass or volume of solution.

**\*WRITING CHEMICAL FORMULAE**

**Chemistry Associates \$39.95**  
This program takes students through the systematic stages of writing formulae for the elements, ionic compounds and molecular compounds. The symbols for the more common elements are introduced as well as their atomicity.

**D) GEOLOGY**

**DATING and GEOLOGIC TIME \$75.00**

**Dataflow**  
This program reinforces the concepts and procedures in identifying and dating minerals, rocks and fossils.

**GEOLOGY SEARCH \$180.00**

**McGraw-Hill**  
Sends students to explore for oil. Students learn about rocks, fossils and underground structures in order to make decisions on drilling. The program comes with a teachers manual, 20 reorderable student handbooks and a diskette which also handles record keeping.

**\*GEOLOGICAL HISTORY \$70.00**

**Prologic**  
This simulation allows students to investigate, create and solve the geological history of land masses, explore the processes of deposition, folding, faulting, extrusions and erosion which form a geological cross section.

**\*GEOLOGISTS AT WORKS \$70.00**

**Prologic**  
Students are able to investigate, create and solve geological searches for natural resources using techniques used by Geologists.

**IDENTIFYING MINERALS \$59.95**

**Edusoft**  
Test mineral knowledge plus outline the key physical tests for minerals, including colour, streak, lustre, hardness, cleavage and fracture. The program also covers magnetism, reaction with acids, fluorescence, taste, etc.

**E) PHYSICS**

**APPLE PHYSICS \$59.95**

**Edusoft**  
A program on parabolic and simple harmonic motion.

**BASIC CONCEPTS OF ELECTRICITY SERIES**

**Mastery Education \$118.60 each**

**Series 1: Basic Concepts.**  
Reviews the concept of electric charge, explains the nature of electric current, and explains the meaning of electric potential difference.

**Series 2: Introduction to Circuits.**  
Teaches the difference between parallel and series connections, the basic concepts concerning the current in series and parallel circuits, and the concepts involving potential difference in series and parallel circuits.

**Series 3: Resistance**  
Experiments with the computer to discover Ohm's Law. Problem solving is performed using the equation  $V=I/R$ . Qualitative concepts concerning effective resistance in series and parallel circuits are taught.

**Series 4: Electrical Energy**  
The equation  $E=VIT$  is derived. Reviews the concept of power as the rate of use of energy. Introduces the unit of the kilowatt-hour.

**BASIC ELECTRICITY \$49.95**

**Edusoft**  
Through the computer use of graphics the concepts of current flow, open, closed and short circuits are examined.

**COMPUTIMER \$246.00**

**Apple IIc adapter + software \$30.00**  
**Education Computer Aids**  
Computimer is a computer timing device for science experiments. Designed to train students in computer laboratory technique. For use on the Apple II+ and the Apple IIe computers. Adaptors for use with the Apple IIc available on application. Software included with the computer;

**The Linear Airtrack** - Uses two light (timing) gates to calculate the velocities, momenta and energies of the airtrack gliders before and after elastic and inelastic collisions.

**The Simple Pendulum** - Use one light gate to measure the period of a pendulum for a given length. By varying the length of the pendulum the following relationships are examined graphically; period v's length, period v's / length and period v's 1/length.

**Motion Short** - Uses one light gate and a calibrated strip attached to a moving object. Motion must be completed in 4 seconds. The program tabulates data and displays graphically displacement v's time, velocity v's time and acceleration v's time.

**Motion Long** - Uses one light gate and a calibrated strip attached to a moving object. The program tabulates data and displays graphically: displacement v's time, velocity v's time and acceleration v's time.

**Newton's Laws** - Uses one light gate and calibrated strip attached to an object undergoing uniform acceleration. The acceleration is calculated from velocity v's time data using the method of least squares. By varying the force the following relationships can be examined: force v's acceleration, force v's / acceleration and force v's 1/ acceleration.

**"G" Falling Object** - Uses a light gate and a calibrated strip attached to a mass, the uniform acceleration "G" is calculated from velocity v's time data using the method of least squares.

**"G": Inclined Object** - Uses one light gate and a calibrated strip attached to an object moving down an inclined plane. The uniform acceleration "G" is calculated from velocity v's time data and the angle of the inclined plane.

**"G" Pendulum** - Uses one light gate to measure the period of a pendulum for a given length. The uniform acceleration "G" is calculated from the period and length of the pendulum.

**ENERGY SEARCH \$180.00**

**McGraw-Hill**  
Students manage an energy factory and recreate steps taken in the search of new energy sources. The program comes with a teachers manual, 20 reorderable student handbooks and a diskette which also handles record keeping.

**FIELDPLOT \$49.95**

**Pitman**  
This program draws electric field patterns for up to ten point charges. Students explore the electric fields by choosing the number, size and position of the charges.

**GROUP VELOCITY \$85.00**

**Science Education Resources**  
Students use game paddles to control wave velocity and wave length to demonstrate a travelling sine wave and two types of wave groups by controlling wave velocity and group velocity. Students select values for frequency, time and wave number to display velocity, oscillation, cosine waves, moving waves and group waves.

**HABER - AMMONIA SYNTHESIS**

**Edward Arnold \$55.95**  
A simulation using mathematical model of the Haber process designed to enable the student to discover how the various conditions influence the course of the reaction.

**\*INTERP - INTERFERENCE AND DIFFRACTION OF WAVES \$55.00**

**Edward Arnold**  
Allows students to investigate two slit interference patterns.

**INTRODUCTORY MECHANICS FOR APPLE II**

**Science Education Resources \$85.00**  
The program focuses on the application of Newton's Second Law to the simple harmonic oscillator and to the motion of particles in two dimensions, under the influences of uniform fields or one or more force centres. The exercises and examples emphasize problem solving and use graphics throughout.

**\*KINETICS \$55.00**

**Science Education Resources**  
A simulation of an introductory chemistry laboratory on the factors influencing the rate of a reaction. Includes Teacher Notes and diskette.

**\*LENS \$35.00**

**Angle Park Computing Centre**  
A computer simulation of a ray passing through a spherical lens. The lens surfaces are spherical in cross section and may be a combination of convex and concave curvatures. The refractive indices of the lens and surroundings can be altered to simulate various situations.

**LENSES \$75.00**

**Heinemann**  
This program simulates rays of light from a ray box or a laser incident on a lens or mirror. The rays may be scanned up and down to clarify the idea of image formation.

**LONGITUDINAL WAVES \$75.00**

**Heinemann**  
Similar to Transverse Waves (described over page) in that the user may control velocity, amplitude, wavelength and thus investigate interference, reflection and other wave functions.

**MICROELECTRONICS \$75.00**

**Heinemann**  
The user designs and tests digital circuits by connecting together standard logic gates. Once tested, these complete circuits are incorporated as "black boxes" in more complicated circuits.

**MIRRORS AND LENSES \$59.95**

**Edusoft**  
This program uses colour graphics to help explain converging and diverging mirrors and lenses.

**MODELING \$45.00**

**HBS International**  
This program allows students to text their hypotheses about their scientific models.

**NEWTON - SATELLITE ORBITS \$55.00**

**Edward Arnold**  
This simulation encourages students to think about the relationships between models and the physical phenomena these models "explain" using Newton's Law of Gravitation and his Second Law of Motion

**NUCLEAR REACTIONS \$75.00**

**Dataflow**  
This simulation is broken into three types of Nuclear Reactions, alpha, beta and gamma parts. Through safe

on screen experiments students acquire a thorough understanding of nuclear energy and the various functions of nuclear lab equipment.

**\*ON THE MOVE \$70.00**

**Prologic**  
Physics program which explores the relationships between force, mass, friction and gravity.

**SCATT 1, 2 AND 3 - PARTICLE SCATTERING**

**Edward Arnold \$55.00**  
SCATT is a simulation of alpha particle scattering by metal foil.

**\*SCHOOL SCIENCE EXPERIMENTS**

**ICITACS, ICI Australia Operations**

**Linear Air Track (\$695)** - This package focuses on real experiments, two cart collisions, simple harmonic motion, constant acceleration and others. Velocity vs time graphs are generated by the program with data being collected every 10 milliseconds. Package consists of 2 radar modules, 2 cart detectors, power pack, computer connections and cords, software (with built-in clock) and manual.

**pH Meter (\$195)** - package converts the computer's monitor into a large digital pH meter. Solutions in the 0 - 13 pH range can be readily measured. Consists of pH probe, computer connections and cord, software and manual.

**Pressure - Volume Temperature (\$69.95)**

- relationships of Ideal Gases simulation package.

**Redox Reactions (\$245)** - Students can clearly see the relationship between the theory they learn and the experiment they perform. Is presented in three parts. Firstly, the principles of redox chemistry are presented involving student interaction. Secondly, redox experiments are performed using a series of half-cells which are connected to the computer. A graph is formed and oxidants and reductants are readily identified. Thirdly, half-cells are ranked by the students in order of oxidation strengths. Consists of electrode connections, computer connections and cord, software and manual.

**Simple Harmonic Motion (\$245)** - is an experimentation-tutorial program that is presented in two sections. First, a series of four experiments involving the relationship between the length of a pendulum and its period of swing. Results are collated and graphed on the monitor. The second, analyses the motion of the pendulum covering the theoretical aspects of pendulum motion. Package consists of pendulum support and bob, optic sensor, computer connections and cord, software and manual.

**Temperature Probe (\$225)** - monitors and records temperatures experienced in a wide range of laboratory situations. Ideal for cooling curves, fermentation studies, and ambient temperature studies. Package consists of temperature probe, computer connections and cords, software and manual.

**SIMPLE MACHINES - MACHINES WITHOUT MOTORS**

**Edusoft \$59.95**

Terms such as energy, force, resistance and effort as well as the Law of Machines is presented in the introduction. Students study each of the simple machines, lever, screw, wheel and axle, inclined plane, wedge and pulley.

**TELLSTAR \$129.00**

**Ramware**

An astronomy package showing the sky on any day at any place on the earth.

**TEMPERATURE GRAPHER \$125.00**

**Softime**

This program allows students to calibrate 2 temperature probes and then use them in measuring the temperature in a solar collector or and insulated ice cube container and plotting temperature changes of the cooling liquids.

**TRANSVERSE WAVES \$75.00**

**Heinemann**

This program allows the user to control velocity, amplitude, wavelength and thus investigate interference, reflection and other wave functions.

**\*TRIBBLES - SCIENTIFIC METHOD**

**Science Education Resources \$65.00**

Consists of a written tutorial and computer simulation which takes place on an alien planet inhabited by tribbles. The tutorial presents students with a problem and guides them to its solution. The simulation provides the data for making observations and testing predictions.

**YOUNG'S SLITS \$75.00**

**Heinemann**

This program provides a dynamic model of Young's experiment, allowing the amplitude and wavelength of the source waves, separation of the slits and position of convergence to be varied.

## 25. SECONDARY MATHEMATICS

**ALGE-BLASTER \$79.95**

**Edusoft**

A complete algebra program in one package. Introduces the algebraic fundamentals as well as reinforcement in them.

**ALGEBRA ARCADE \$79.95**

**Edusoft**

An exciting game for learning and practising algebraic fact, arcade style of program.

**ALGEBRA DRILL AND PRACTICE \$180.00**

**Science Education Resources**

**Volume 1** - A program covering algebraic signs, operations with numeric and algebraic fractions, percentages, equations of lines, simplification of algebraic expressions and word problems. This program provides drill, practice and help with basic algebra with detailed step-by-step solutions. It includes an instructor's manual and two diskettes.

**Volume 2** - Covers decimal arithmetic, absolute numbers, solving equations and inequalities involving absolute values, simplifying expressions with integral exponents, factoring linear and quadratic expressions (binomials and trinomials), linear algebraic equations, and others. It includes and instructors guide and two diskettes.

**ALGEBRA ELECTRONIC BLACKBOARD**

**Edusoft \$149.00**

This program is a tutorial package containing 2 disks and user's guide. Includes topics such as; cartesian coordinates, lines and linear functions, quadratics, etc.

**ALGEBRA TUTOR \$59.95**

**Edusoft**

An animated tutorial and diagnostic package covering the fundamentals of algebra.

**ALGEBRA TUTOR! \$49.95**

**Dataflow**

This program has four levels of elementary expertise. Each followed by a diagnostic test that shows exactly where more work is needed. Students move quickly from powers and prime factors to brackets, braces and set notation. Sample problems are followed by plenty of practice.

**ALGEBRA \$59.95 each**

**Edusoft**

**Volume 1** - Each unit of algebra may be approached in one or more ways. Students may work sample problems, read a discussion of a concept, watch as an equation is solved step-by-step, or study the rules which govern an operation. **Algebra 1** covers five learning units: definitions, number line operations, sets, evaluating expressions and rules for equation reduction.

**Volume 2** - See Algebra 1 for a general description. **Algebra 2** covers: addition of real numbers, multiplication of real numbers, solving inequalities and solving equations and problems.

**Volume 3** - See Algebra 1 for a general description. **Algebra 3** covers monomials and simple factoring of

binomials, polynomials and quadratic trinomials.

**Volume 4** - Algebra 4 covers introduction to graphing, coordinates in a plane, linear equations, solving systems of linear equations, variation and inequalities.

**ALGEBRA 5 & 6 \$69.95**

**Edusoft**

Covers irrational numbers, radical expressions, finding square roots, quadratic equations, quadratic inequalities, Pythagoras theorem.

**ALGEBRAIC EXPRESSIONS \$49.95**

**Micro Nationwide**

This package contains two programs: rewriting phrases as algebraic expressions and evaluating algebraic expressions. The programs have both a tutorial section and an evaluation section.

**ARBLOT \$180.00**

**Science Education Resources**

This package can be used to demonstrate plotting curves in explicit or parametric form in rectangular or polar coordinates, bounded or un-bounded, continuous or discontinuous. The teacher may illustrate calculus concepts such as limits and derivatives, integration, sequences and series and methods of finding roots. The instructor's guide includes 30 problems to demonstrate these concepts and has instructions to describe how a teacher may prepare a sequence of graphic illustrations.

**\*BASIC ARITHMETIC AND ALGEBRA**

**Computer Tutor \$79.95**

This program is based on the NSW HSC Two-Unit Mathematics Course. It is, however, also a valuable resource for students in years 7 to 10 and adults who wish to learn mathematics. Learners need little prior knowledge and work at their own pace. The material is presented in small steps, and after each step the learner is tested. If the question is answered incorrectly the material is presented again, sometimes with extra explanation.

**BINARY MATHS \$49.94**

**Dataflow**

A two disk program that introduces students the to binary number system, as well as giving practice at converting from base ten to base two and back again.

**CACTUS PLOT: A MATHS UTILITY**

**Edusoft \$99.95**

This package allows students in beginning algebra to advanced calculus to study the properties of functions without tedious hand calculation and plotting. It easily plots linear, quadratic, exponential, logarithmic and trigonometric functions singly or with precise accuracy. A second function graph may be overlaid on the first for easy comparisons. Any portion of the graph may be expanded to full screen size to allow examination of fine detail. (Apple II, IIe, IIc)

**THE CALCULUS TOOLKIT \$280.00**

**Britannica**

This 27-program package provides an excellent supplement to any text. Students can explore in an interactive laboratory setting different properties of a curve.

**\*CARTESIAN GAMES \$18.00****Bartlett Software**

This diskette contains four games using cartesian co-ordinates. The first, **Treasure Hunt**, uses a 9x9 grid (positive whole numbers) and is suitable for upper primary and lower secondary. **Spotlight Burglary**, the second, uses decimal co-ordinates in all four quadrants. **Fly Trap** uses linear equations to trap the most flies in the minimum area. The fourth program, **Duck Shoot**, for upper secondary students uses equations of conic sections to shoot ducks. (Back-up disk \$5)

**COMPUTER GRAPHING \$68.00 each****Addison Wesley**

**EXPERIMENTS 1** Students create and compare graphs of linear and quadratic functions and inequalities, absolute value, polynomials, exponential and logarithmic functions. The package contains a diskette, backup diskette, black-line masters, answers and teacher notes.

**EXPERIMENTS 2.** Students create and compare graphs of sine, cosine, tangent and cotangent, including the concepts of period, amplitude, phase shift and polar co-ordinates. The package includes disks, black-line masters for student worksheets, answers and teacher notes.

**EXPERIMENTS 3.** Students create and compare graphs of parabolas, ellipses, hyperbolas, general quadratic functions and inequalities involving conic sections.

**DISCOVERY LEARNING IN TRIGONOMETRY****Science Education Resources \$115.00**

This package uses discovery learning to introduce students to trigonometric functions and their visual representations. The material covered includes functions, trigonometric functions, amplitude, period phase shift and polar coordinates.

**EASY GRAPH \$99.95****Grolier**

This very easy-to-use package helps those students who find it hard to create graphs and charts as well as understanding what they mean. The program allows them to create and print illuminating and instructive graphs and charts by themselves.

**\*EDUCATIONAL GAMES PACK #1****Passionfruit Software \$60.00**

This diskette contains five programs for the junior secondary child. **Catch the Spies:** covers co-ordinate graphs and Pythagoras' Theorem. **Directed Numbers:** has four levels of difficulty in this board game for two players. **Equations Game:** The two players are given first order equations of varying difficulty to answer. **Pythagoras' Rule** is a teaching program that explains the nature of this theorem with drawings and text. The fifth program, **Vocabulary Tester**, tests the knowledge of foreign words. Data files in French and German are included but teachers may readily form their own files.

**EQUATIONS \$59.00****Micro Nationwide**

Three programs on the solution of equations: one variable and one operation, one variable and two operations and variables on both sides. The equations are generated randomly.

**EXPLORING METRO \$79.95****Edsoft**

Students explore a colourful, alien planet while learning the valuable estimation skills of metric capacity, mass, length and temperature.

**EXPLORING TABLE & GRAPHS 1 & 2****Edsoft \$49.95 each**

Students are able to experiment with tables of data formed from their own results of games and other activities. They are required to interpret this data, using bar, line and area graphs.

**FACTORING \$59.95****Edusoft**

This varied and flexible program generates algebraic linear and quadratic expressions that are factorable. The student will factor the expression using the screen as a worksheet exactly as would be done in the math classroom. Once the factors have been entered, the student may then test the results. The computer multiplies the factors entered and shows the result. The program then switches to a mode where as each part of a factor is changed, the product is immediately changed on the screen. This allows the student to experiment on a trial and error basis until the correct solution is found. Errors are flagged immediately and become opportunities to see step by step solutions. Complete error analysis after each problem and at the end of each set.

**FUNCTION PLOTTER \$79.95****Edusoft**

This program teaches students how to enter and graph almost any function and translate, shrink, or stretch it.

**GEOMETRY CONCEPTS \$59.95****Edusoft**

This program is a complete introduction to geometry in a game format with colour graphics. The program covers the basic concepts, angles, parts of a circle, lines, polygons and solid figures.

**THE GEOMETRIC SUPPOSER \$135.00 each****Edsoft**

**QUADRILATERALS** - The program allows the user to make any construction on or take the measurement of a quadrilateral and records that construction as a procedure. Students then may repeat the procedure on any type of quadrilateral. Students can investigate such problems as: Can you find anything unique about the sum of the angles of a quadrilateral?, or What do you notice about the diagonals of a rhombus? Is that also true for a parallelogram? (Apple II, IIe, IIc) (\$320 for 10 pack)

**TRIANGLES** - This program allows the user to make any construction they wish on a triangle and records that construction as a procedure that can be executed with any type of triangle. Students can investigate as; draw all the attitudes of an acute triangle, state a conjecture about the attitudes of a triangle, is your conjecture true for an obtuse triangle. (Apple II+, IIe, IIc) (\$320 for 10 pack)

**GRAPHING \$49.95****Micro Nationwide**

Two programs are included: introduction to graphing on the coordinate plane and plotting points on the coordinate plane.

**GRAPHING AND CO-ORDINATES****Edusoft \$59.95**

This program includes functions, substituting values to solve equations, grid co-ordinates, ordered pairs, x and y axes, plotting points, determining straight lines, graphing linear equations slope, intercepts, etc.

**GRAPHING EQUATIONS \$95.00****Science Education Resources**

Four programs are contained in this package. The first, **Linear and Quadratic Graphs** gives students practice with equations of lines, parabolas, circles, ellipses and hyperbolas. **Green Globes** is a game where the student tries to hit as many of the 13 globs on the coordinate grid as possible. Students enter equations which are plotted on the screen. Higher scores are earned by hitting more globs with each shot. The third program, **Tracker** is a game using linear and quadratic graphs. The object is to find hidden graphs and determine their equation. The fourth program, **Equation Plotter** is a utility program that plots graphs entered by the student. The program plots conics, absolute values, square roots, logarithmic, exponential and trigonometric functions.

**GRAPHING LINEAR FUNCTIONS****Micro Nationwide \$149.00**

Using the screen as a worksheet and graph paper, the student is able to practice graphing a linear function in the form  $AX + BY = C$  (or some other variation of that form). The program randomly generates a linear function and guides the student into setting up a chart consisting of three ordered pairs that are solutions to the given equation. The student must pick a value for 'X' and then find the corresponding 'Y' value. Once three points (ordered pairs) have been chosen, a coordinate axes appears on the screen. Using certain keys, the cursor is moved to the position representing a point on the line. After the three points have been correctly placed, a line connecting these points is drawn. Comes with four disks.

**\*GRAPH PLOTTER \$45.00****Data Publishing**

A program designed to introduce various types of graphs to students from year seven to twelve. designed by two math teachers, it assumes no previous computer knowledge. A site licence is available.

**GREEN GLOBS AND GRAPHING EQUATIONS****Edsoft \$79.95**

This program provides four activities that help students learn about graphing equations. In the first activity, **Linear and Quadratic Graphs** - students are provided with a graph and must write the equation. In **Green Globes** - students must enter equations to create graphs that will hit the thirteen green globs scattered randomly on a grid. **Tracker** - requires the students to locate linear and quadratic graphs that are hidden in a coordinate plane, and then determine the equations. **Equation Plotter** - is a general utility program that can be used to graph conic equations or any general functions entered by the students. (\$165 for 10 pack)

**GUESS MY RULE \$99.00****Softime**

Students search for clues to hidden rules or algorithms. The teacher can input new rules therefore adjusting the skill level to suit the mathematical knowledge of the students.

**INTERMEDIATE ALGEBRA \$59.00****Edusoft**

Exercises utilising distributive law, binomials, trinomials, substitution, division of terms and more.

**INTERPRETING GRAPHS \$79.95****Edsoft**

This package has two programs. The first, **Relating Graphs to Events**, is a series of 20 exercises, each of which plots three graphs on the same axes. An event is described and the student has to determine which of the graphs represents the event. The second program, **Escape**, uses a coordinate grid as a city map. The students sets blockades to trap bank robbers who are escaping from the centre of the city to the edge of the grid.

**LOGIC AND EUCLIDEAN GEOMETRY****Science Education Resources \$63.00**

This program gives a brief history and teaches 9 forms and offers exercises.

**MANAGING LIFESTYLES \$79.95****Edsoft**

This program covers survival maths skills in three areas of daily life;

**The Calorie Counter** - students plan a day's meal appropriate to their individual calorie requirements. The computer then rates the menu plan.

**Comparison Shopping** - students have to buy a week's food supply of groceries within the tastes and budget of a family of four.

**Budget for success** - students make decisions about life after high school and then try to manage their living expenses.

**THE MATH MACHINE \$95.00****Science Education Resources**

A multi-skill level of basic mathematics processes in which a step-by-step approach individualises lessons to meet each student's need. Appropriate for primary, secondary and remedial students.

**MATH WARS \$60.00****Science Education Resources**

This program has over 35 skill levels in basic mathematical processes and presents these in exciting graphical arcade type games.

**MATHS FOR EVERYDAY LIVING \$99.00****Micro Nationwide**

This program looks at real-life math and business skills in 10 simulation programs. They include: paying for a meal (addition and subtraction), working with sales slips (multiplication), unit pricing (division), saving on transportation (division), sales tax (percent), finding your job (multiplication), earning with overtime (fractions), earning with commission or piecework (multiplication and percent) and finding the net pay.

**\*MATHEMATICS PROBLEM GENERATOR****Logistics** \$75.00

MPG is a suite of problem generators. The programs will generate randomized questions for single students or a whole class. The package includes problem generators for; Additions, Subtraction, Multiplication, Division, Fractions (+-\*/), reducing Fractions, Equivalent Fractions, Equations, Expressions.

MPG will generate up to 100 questions per student. Homework or class exercises can be set for selected students or the whole class. Answers to all problems are supplied.

**MATHEMATICS SKILL SOFTWARE****Addison-Wesley** \$56.25

This package caters for year 7 and 8, presenting a series of interactive problems to the student. These problems come in varying forms; word problems involving one-step, multiple-step, nonroutine and applied problem-solving simulations.

**MATHEMATICS VOLUME 1** \$27.00**Seasen Software**

A range of activities are included on this diskette covering the topics of plotting points, angle measurements, drill in the solution of equations, plotting equations using rectangular or polar coordinates.

**MATHEMATICS VOLUME 3 - GEOMETRY****Seasen Software** \$27.00

The concepts of area and perimeter are covered for quadrilaterals and triangles. Volume 2 is not currently being distributed in Australia as far as we can ascertain.

**MATHPROGRAM** \$105.00**Science Education Resources**

This program is a general sequence generator and tabulates from one to seven recursive sequences. The guide shows how the arithmetic expressions can be changed to help generate new sequences, function tables and series evaluation. A good Calculus tool.

**\*MATHS FOR THE REAL WORLD****Pitman Publishing** \$34.95

This disk contains nineteen programs based on material contained in the textbook Maths for the Real World by Evelyn Kahn and Noel Cary, but can also be used independently. The programs include examples of how computers are used in everyday and typical business situations.

**MATHGRAPHER** \$110.00**Softime**

A graphing program in which students can not only graph any Cartesian or polar function but overlay several graphs, zoom in on points of interest and approximate the integer of any function. The program can be used for very simple to very complex functions.

**MATHS SKILLS PACK** \$89.95**Edusoft**

A teacher modifiable program for testing maths skills. Topics covered on the two disks include: algebra, geometry, word problems, pie charts, line plots, bar graphs, geometry construction and flow charts.

**MECC GRAPH** \$75.00**HBS International**

This package involves both MECC Graph \$75 and MECC Graph Primer \$45. This interactive program allows students to create and analyse line, bar and pie graphs. Data entry screens and graphs can be printed.

**\*THE PIE SHOP** \$70.00**Prologic**

Students simulate the operation of a food stall at a football match, making decisions on how much to order, what prices to charge.

**PIZZA FRACTION** \$85.00**Softime**

This program uses inventive and colourful animations to help students learn about fractions. Working in a pizza parlour, they must slice pizzas into a number of parts. There are 5 levels of difficulty catering to primary and remedial groups.

**PLOT** \$40.00**Angle Park Computing Centre**

This program plots any rational function over any domain and displays the graph on the screen. Several graphs can be superimposed for comparison and a slide-show presentation is available.

**PLOT 3** \$45.00**Logistic Software**

Plot 3 will plot any function in Cartesian, Polar and 3 Dimensional. Functions are plotted on high resolution screen. Two or more functions may be superimposed and copied to a printer if desired. Common trigonometric and quadratic equations are defined in the program so that all you need to specify are the coefficients. Plot 3 also support user functions so that you can ask the program to plot any function you like. Plot 3 is ideal for classroom demonstrations. (Apple II, IIe, IIc)

**POLYNOMIAL PRACTICE USING TILES****Edusoft** \$79.95

High quality colour graphics visually reinforce the algebraic concept of polynomials. Students begin by learning to identify polynomial name for random collections of algebra tiles. They then gain practice in adding, subtracting, multiplying and dividing binomials, monomials, polynomials and trinomials by using pictures of tiles. (Apple II, IIe, IIc)

**THE RIEMANN INTEGRAL** \$59.95**Edusoft**

This program presents the famous integral of finding the area under a curve.

**\*RIME PACK A** \$25.00**Victorian Government Bookshop**

This program demonstrates that the microcomputer is a useful tool for investigation in real life. The diskette contains programs relevant to computer-specific lessons. Also included is a handbook called Making Sum-Think Happen.

**SEMCALC** \$125.95**Edusoft**

SemCalc helps the student solve word problems by focusing on the units rather than the numbers. Correlated for use with 287 Text books, this innovative teaching tool helps students avoid inappropriate calculations by; (1) stopping them from processing incompatible units; (2) helping them convert to common units; (3) using unit awareness to help students determine the correct mathematical operation. SemCalc keeps notes on the processes that go into each computation so students can easily see how an answer was reached. (\$320 for 10 pack)

**SOLVING EQUATIONS AND INEQUALITIES****Edusoft** \$79.95

This program graphically demonstrates how math equations and inequalities can be used to represent a physical mode. It also demonstrates how equations or inequalities can be simplified and the problem solved. (Apple II, IIe, IIc) (\$165 for 10 pack)

**SPECIAL PRODUCTS AND ALGEBRAIC****FACTORS****Science Education Resources** \$49.00

Drill and practice with the distributive law, binomials, trinomials and quadrinomials, plus exercises with factors.

**STATISTICS** \$59.95 each**Edusoft**

**VOLUME 1.** This package involves compilation of data and the probability of events.

**VOLUME 2.** Includes permutations, combinations, binomial expansion, probability of mutually exclusive & independent events, frequency distribution, measurement of central tendency and graphs data.

**SURFACE APPLE** \$95.00**Science Education Resources**

This program together with the student's guide will lead a student through a unit of work on this subject.

**SURFACES FOR MULTIVARIABLE CALCULUS****Science Education Resources** \$95.00

A multiprogram utility for producing 3-D graphs of complex mathematical formulae.

**SURVIVAL MATHS** \$79.95**Edusoft**

This package covers four different simulations which all require the use of basic mathematics skills and the need for sound judgement. Simulations include, Smart Shopper Marathon - students try to figure out the best buys. Hot Dog Stand - students run a hot dog stall at a school football match to raise money. Travel Agent Contest - students plan a 7-day, 6-night trip without exceeding a prescribed spending limit. The last one being, Foreman's Assistant - students help plan a playroom and must purchase the material after taking all the necessary measurements.

**\*TEACHING MATHS WITH A COMPUTER****Messing Software** \$35.00 each

**Volume 1** - This is a disk of 10 programs for use in junior Maths. The programs deal with the following subject matter. Area of plane figures, Enlargement, Functions, Graphical representation of data, Order of Operations, regions on a Number plane, Similar figures, Simultaneous Equations, Solving Linear equations and Introductory Trigonometry. The programs are mainly designed for drill and practice work, with the large symbols being suitable for group as well as whole class activities. The disk comes with a manual of 40 pages of notes on how to use the programs, how to use them in a classroom and even some stencil masters of grids and tables for use by students. (School Licence)

**Volume 2** - This disk contains a variety of educational program styles:- Tutorial Drill and Practice, Stencil Generators and student utilities. The subject matter is suitable for students from year 5 to year 12 and includes several types of programs on Decimals, Directed Numbers, Expansion of Algebraic products, factorizing of Algebraic expressions and Surveying. All programs provide for a wide range ability levels. The notes are comprehensive with 23 pages of detailed operating instructions (not that you really need any) and 7 pages of teaching suggestions and even instructions on how to make changes to some of the programs. (School Licence)

**TOBBS LEARNS ALGEBRA** \$79.95**Edusoft**

This program is a follow on from "Teasers by Tobbs". Students develop algebraic thinking, hypothesis-making and testing ability skills while trying to solve different problems.

**TRANSFORMATIONS** \$45.00**Jacaranda Wiley**

A senior geometry program that cover all possibilities with transformations being displayed on the screen.

**TRIGONOMETRY ELECTRONIC BLACKBOARD****Edusoft** \$79.95

This program covers a complete introduction to trigonometry, covering topics such as wrapping, function, special angle graphing, sine and cosine curves.

**YOUR PERSONAL NET WORTH** \$119.95**Edusoft**

This program encourages students to manage and create a budget for a family. This involves students experimenting with a person's income, expenses, investments, and personal property.

**26. SIMULATIONS**

- ADVENTURE ISLAND** \$55.95  
**Ashtron**  
 Stranded on a tropical island, the group must make decisions to overcome the difficulties and dangers in their attempt to survive and ultimately be rescued.
- (BECOME A) BARON** \$74.95  
**Edusoft**  
 Amass a fortune as your personal empire grows in real estate. Combat rising rents, rates and vandalism.
- THE BODY TRANSPARENT** \$69.95  
**Edusoft**  
 This program allows students to pull apart a human body in order to examine and learn about the different organs and bones. Move them around and put them back in their correct location.
- \*CAT LAB** \$85.00  
**Science Education Resources**  
 A science simulation allowing students to mate domestic cats selected by coat colour and pattern. Program produces genetically valid litters based on these matings.
- \*CUNNING RUNNING** \$45.00  
**Jacaranda Wiley**  
 Cunning Running allows up to four students to practise basic mapping skills including map language, compass directions and alphanumeric grid-square references. Students must plot a fast and efficient course around the countryside.
- \*DESIGNING AN ENERGY-EFFICIENT HOUSE**  
**Prologic** \$70.00  
 This program allows students to design and construct a theoretical house, making decisions on materials to be utilized and location of the house. Assessment of energy requirements is then computed for student analysis.
- \*DEVELOPING LIVING SKILLS** \$70.00  
**Prologic**  
 This simulation takes an individual or group of students through the experiences of living independently for 1 year. The aim is to survive financially while facing the temptations and rewards present in real life.
- DREAM HOUSE** \$59.95  
**Edusoft**  
 This program allows the user to build differing styles of houses, adding rooms, changing floor plans, both from a plan or cut away view. Decorate rooms even add animated objects such as the television, lounge, beds etc. Paint, wallpaper and choose light fittings.
- THE EAR** \$59.95  
**Edusoft**  
 This program looks at the various part of the outer, middle and inner ear and shows the effect of sound on the different parts.
- FORECAST** \$79.95  
**Edsoft**  
 Track and plot different weather patterns and see what happens.

**FREE ENTERPRISE** \$150.00**Science Resource Associates**

Free Enterprise is a business simulation in which the participants run companies making the same type of product. Up to six individuals or teams can participate, or one or more can interact with computer players simulating competition among up to six companies. Each company may sell its product in its own geographic home areas, in the home areas of its competitors, and in a common market area equally accessible to all. The measure of success can be stock price, overall profit or some other agreed-upon criterion. There are three levels of difficulty and results can be saved and recalled on another occasion.

**\*GEOLOGICAL HISTORY** \$70.00**Prologic**

This simulation allows students to investigate, create and solve the geological history of land masses, explore the processes of deposition, folding, faulting, extrusions and erosion which form a geological cross section.

**\*GEOLOGISTS AT WORKS** \$70.00**Prologic**

Students are able to investigate, create and solve geological searches for natural resources using techniques used by Geologists.

**\*GOLD DUST ISLAND** \$49.00**Jacaranda Wiley**

This program provides an opportunity for students to compare cooperative and non-cooperative behaviour. It emphasises the need to share ideas and resources and is therefore suitable for social science courses.

**THE HALLEY PROJECT** \$79.95**Edusoft**

Halley project provides the user with an understanding of the solar system by a real time simulation and a series of tests. It includes facts on Halley's Comet and its orbit, gravity, atmospheric conditions, orbital motion, the relative size, position and orbit of planets and moons; the location of constellations; and how eclipses work.

**THE HEART SIMULATOR** \$79.95**Edusoft**

This Hi-res, colour graphics, animated program offers a simulation of the heart. Students can use the timing exercises to see the reaction on the heart, heart to lung blood flow and identify the different parts.

**\*HEREDITY DOG** \$55.00**Science Education Resources**

An introduction to the principles of inheritance. The program includes a tutorial and five single-gene and five two gene simulations. May also be used to study the binomial theorem and probability in mathematics.

**HOME ENERGY CONSERVATION** \$89.95**Edusoft**

This program uses a spreadsheet technique to ask "what if" questions. The program is broken up into two parts.  
**Part 1: Home heating Audit-** house specifications, climate and fuel are varied to see conservation and cost effectiveness.

**Part 2: Electricity and How Water** - students must manipulate the appliance of wattage and water usage and determine the effects and efficiency of use patterns.

**HUMAN GENETICS DISORDERS \$115.00**

**Softime**  
Students investigate inheritance of specific disorders; Huntington's disease, cystic-fibrosis and hemophilia. Students study a series of pedigree and have to deduce the pattern of inheritance of an unknown disorder.

**INTERPLANETARY PILOT \$69.00**

**Edusoft**  
A space flight simulator that puts the user in complete control of the spaceship, cargo, passengers and crew on a trip throughout the solar system.

**INTRODUCTORY GENETICS \$129.00**

**Edusoft**  
Simulation of mono and dihybrid crosses. Interactive exercises in punnett square, dominant and recessive genes, homozygous and heterozygous offspring.

**\*ISLAND \$49.95**

**Edusoft**  
This computer simulation requires students to carry out various investigations on an uninhabited and unknown island. With only 20 days and 12 hours of sunlight each day students must compile a possible history of the island with the evidence they collect.  
A good program for geography, history, and social studies involving problem-solving, map reading, note taking, decision making, formulation of hypotheses etc.

**\*ISLE OF WHAT \$65.00**

**Edusoft**  
The Isle of What? is a recently discovered island which becomes the subject of many development proposals. The package consists of 15 map units or exosystems. Students become involved in the development of the island by taking on the roles of the potential land users. The computer provides the student with information about their roles and the island. The major purpose of this package is to illustrate the purposes and procedures of land capability assessment, land management and land use decision making. Extensive documentation, maps and slides are provided. (Apple II/IIe) (\$145 for 10 pack)

**MANAGING THE AUSTRALIAN ECONOMY**

**Learning Simulations Software \$70.00**  
To dream the impossible dream...A program designed to instruct students in the factors involved in managing the Australian economy. Taxes, money supply, budget deficits, unemployment and inflation are included as well as background information. Progress is judged by the effects of student decisions on such factors as inflation and unemployment. Accompanying materials helps with a unit of work associated with the program.

**MILLIONAIRE \$74.95**

**Edusoft**  
Buy and sell stock on this computer stock market with 15 different companies. Start with \$10,000 and by using call and put options see if you can become a millionaire in the 90 week time span.

**\*ON THE MOVE \$70.00**

**Prologic**  
Physics simulation that explores the relationship between force, mass, friction and gravity.

**OPERATION FROG \$49.95**

**Ashtron**  
Simulate the dissection of a frog. Select the correct sequence and instruments, examine each part with a magnifying glass for a closer inspection of how they work. Put the pieces back in their correct location, if you can, and see if the frog hops over the screen.

**THE OTHER SIDE \$99.00**

**HBS International**  
This program is a two team computer/board game with a peace and conflict theme. The game begins with the world in a state of scarce resources and sensitive national defense systems. Limited communications lead to misunderstandings. Only through co-operation and understanding can the goal to build a bridge between the two nations be achieved.

**\*THE PIE SHOP \$70.00**

**Prologic**  
Students simulate the operation of a food stall at a football match, making decisions on how much to order, what prices to charge.

**PHYSIOLOGICAL SIMULATION \$49.50**

**Heinemann**  
In this simulation the user acting as the brain has to keep the body alive while performing a series of physical activities. The sex, age, weight, vital capacity and blood volume are determined and then the user can vary the rate of breathing, breath volume and the sweating rate while the body performs up to three activities from a list of ten activities.

**PLANETARY CONSTRUCTION SET \$79.95**

**Edusoft**  
This graphics simulation allows students to experiment with astronomical factors that affect the characteristics of the planets. These are then used to create planets for specific life forms. Explore other solar systems to find other life forms.

**POPULATION FLUCTUATIONS \$69.95**

**Edusoft**  
Introduction to terminology and factors related to the study of population dynamics. Allows investigation into population changes over time by changing variables. Program can be printed.

**PREDATION \$75.00**

**Science Education Resources**  
The two parts to the package are simulations students can use to study predator-prey interaction. The first part introduces students to simulations of predation models. While the second part enables students to examine and compare three different models of predator-prey interaction. The program will produce and graph a growth curves upon the students selections.

**\*PRESSURE - VOLUME TEMPERATURE**

**ICITACS \$69.95**  
This program is a science simulation on the relationship of Ideal Gases.

**\*QUICK CARTAGE COMPANY \$45.00**

**Jacaranda Wiley**  
Allows up to four players to travel around a city and local area. Two maps of different scales are provided and the player has to collect construction materials and deliver them to the appropriate building sites. Basic mapping skills with different scales are reinforced by this program.

**\*RAFT AWAY RIVER \$49.00**

**Jacaranda Wiley**  
An adventure simulation that provides students with an opportunity to develop skills in reading, comprehension, communication, co-operative behaviour and problem-solving. From two to six players work to survive by fishing, collecting food and wood for the fire.

**\*SCAVENGER HUNT \$35.00**

**Jacaranda Wiley**  
Up to four players set out on a scavenger hunt. Each must find five objects which the computer randomly selects. To move their stick figures students must negotiate obstacles. Students must use the eight major compass points for giving direction and then enter a distance. The package scores for the moves and the number of items collected.

**SCIENTIFIC SIMULATIONS \$69.95**

**Edusoft**  
Carry out experiments involving both molecular motion and heat transfer.

**\*SHEEP DOG TRIAL \$35.00**

**Jacaranda Wiley**  
A grid game for two students. As well as using alpha-numeric grid references, the program encourages logical thinking and co-operative strategy planning.

**SOLAR FOOD \$115.00**

**Softime**  
Students play the role of a scientist by using radioactive isotopes to explore the fate of certain atoms. Reinforce the concepts of light reactions, light energy, oxygen as a by-product, products of ATP and NADPH, dark reactions and the production of sugar.

**SOUTH DAKOTA \$63.00**

**Micro Nationwide**  
Based on a grain growing farm, provides an easy to use simulation for students from year 5 onwards. It highlights the problems faced by small businesses, the application of mathematics and how economic theory works. The user controls the crop to be planted, the number of helpers to be hired, the amount of seed purchased and the type of livestock to be purchased (if any). Finance can be from the sale of land, bank loans or sale of crops. The cost of land fluctuates and money is needed to clothe and feed the family. Taxes are also collected based on what is earned from the harvest.

**\*STANDING ROOM ONLY! \$70.00**

**Prologic**  
A flexible simulation using extensive graphics displays on human population growth. Students can experiment with data to model population trends. Experiments can be saved, printed, compared and replayed.

**TRAINS \$39.95**

**Softime**  
The student is in charge of an old-time American railway empire. Running the business teaches about the interrelationship between industries. Pick up and deliver on time and the business will be a success.

**TREASURE ISLAND \$44.95**

**Ashtron**  
Two group participate, one as the crew of a treasure ship the other as the crew of a pirate ship. The crew of the treasure ship must devise a strategy to sail from port to port collecting treasure. While the crew of the pirate ship pan a systematic search to capture the treasure.

**\*THE TYCOON ITCH \$65.00**

**Jacaranda**  
A simulation where students run a shipping company trading in a wide variety of commodities between many of the world's major ports. Students need to apply research skills to become a successful tycoon. They will need to use atlases, encyclopedias, and other similar reference materials. One or two player team(s).

**\*VOLAB - ACID -BASE TITRATIONS**

**Science Education Resources \$49.50**  
This program allows the user to control a number of parameters and plots pH versus Volume of Titrant curves for seven acid-base titration systems. Package contains a comprehensive user guide with a range of suggested activities.

**VOLCANOES \$79.95**

**Dataflow**  
A game of strategy and cooperation for two to four players suitable for high school students. The program illustrates how volcanologists study potentially active volcanoes. The object of the game is to accurately predict volcanic activity, warn the local inhabitants and stay within a budget. The game has a "save" option so that players can continue a game at a later time.

**\*VOTE 1 \$45.00**

**Jacaranda**  
Enter the results of a real election and then change the conditions under which it was held: what would happen if candidate A's how-to-vote card was different. Teaches the way in which preferential voting is carried out. With a printer attached the results can be obtained. Can be used for a real election.

**\*WHAT CHEMICAL IS THAT? \$70.00**

**Prologic**  
An inorganic chemical database that allows students to take experimental results and analyse and identify the target chemical. Over 140 chemicals are included. The computer can select the chemical and the student must identify it using skills learnt in the laboratory.

**THE WHATSIT CORPORATION** \$79.95  
**Edsoft**  
 An entrepreneurial simulation about starting and running a one-product business. The need for mathematical models and good business sense lend themselves to on and off keyboard activities, which are essential for success.

**THE WORM** \$69.95  
**Edusoft**  
 Identify the different component parts of the anatomy of a worm.

## 27. SOCIAL STUDIES

**ARCHEOLOGICAL SEARCH** \$180.00  
**McGraw-Hill**

This program is part of the Search Series, involving problem-solving skill and application of many skills acquired in maths, science, and reading. The program requires students to organise and manage the excavation of an important historical site. Through the collection of data, students pose theories about the origins and lifestyle of a community from long ago.

**\*AUSTRALIAN GEOGRAPHY TUTOR**  
**Lothlorien Software** \$75.00

A map oriented program to test students knowledge of locations of towns and other points of interest in Australia. Teachers can insert their own data and positioning on the map.

**\*AUSTRALIA: A PROFILE** \$110.00  
**Active Learning Systems**

A package to allow students to compare different regions in Australia. The data provides a comprehensive source of statistical information designed to encourage students to analyse information and to draw conclusions. The census information includes: population, population growth, age distribution, school leaving age, ethnic origin, income, housing, employment, industrial and agricultural activity.

**\*AUSTRALIAN MAMMALS** \$49.95  
**Dataflow**

The student "buys" clues at varying levels of difficulty to try to identify the mammal. Higher scores are gained by using more difficult clues. Teachers may change the clues and point values.

**\*BIRDS OF THE ANTARCTIC DATABASE**  
**Information Technology** \$35.00

Contains a set of 636 observations of seabirds seen during an Australian National Antarctic Research Expedition voyage between November and December 1982. Students will be able to make hypotheses and then examine the evidence to test their validity. The package provides several different ways of presenting the information. Data may simply be displayed or be shown using one of three graphing options.

**\*BUSHRANGER DATABASE** \$95.00  
**Know Ware**

The Bushranger Data Base provides not only direct data about the bushrangers, but also ballads and a dictionary capability so that students can check the meaning of unknown words in the ballad. It is well supported with worksheets and will provide a valuable resource for schools.

**CAUSE AND EFFECT** \$79.95  
**Edusoft**

While embarking on a mountain climbing expedition, players wind in and out of paths leading to the top of the mountain. Landing on specially designated spaces, students are asked questions concerning the cause and effects of that location.

**\*CLASSIFICATION GAME - ANIMALS**  
**Gemini Software** \$25.00

Enquire about the characteristics of an animal chosen by the computer to determine which one it is from a list of 36 vertebrates and invertebrates.

**\*CLASSIFICATION GAME - GENERAL**  
**Gemini Software** \$25.00

Establish a list of questions, and sets of answers, to enable students to identify mystery items, be they chemicals, countries or foods.

**COMMUNITY SEARCH** \$180.00  
**McGraw-Hill**

This program is part of the Search Series, involving problem-solving skill and application of many skills acquired in maths, science, and reading. An ancient society is forced to leave its ancestral home. Where will it go? How will it get there?

**\*COMPUTER FUN DISK #1: AUSTRALIAN QUIZ**  
**Diocesan Special Education Centre** \$50.00

Australia quiz is one of four programs on this diskette. The quiz asks for the state of origin of the towns selected by the computer. The name of the champion is maintained. The other three programs consist of a number drill, number guessing game and a reading game requiring the skill of sequencing.

**\*THE CONVICTS ABSCONDED**  
**N.S.W. Computer Education Group**

\$3 + disk for members, \$5 + disk for non members  
 The Convicts Absconded and The Convict Physical Features data bases were derived from data from the Quarterly Return of Absconded Convicts in the Colony of NSW. The Convicts Absconded data base contains 11 fields for each record and provides general information on the convicts, including details about their time in Australia. Fields include: Year of Arrival in Australia, Trade, Native Place, From Whom Escaped and From Where Escaped. An additional data base, Convict Ships, accompanies the main data base.

**\*THE CONVICT PHYSICAL FEATURES**  
**N.S.W. Computer Education Group**

\$3 + disk for members, \$5 + disk for non members  
 The Convict Physical Features data base contains fifteen fields for each record and is concerned with the physical appearance of the convicts. Each of the data bases was formed using the Teacher's Database by John Messing and each requires 64K. An accompanying handbook is also provided.

**\*CRIME AND SOCIETY** \$70.00  
**Prologic**

This program is a database containing information on over 70 crimes for the years 1960, 1970 and 1983. Students can statistically analyse crime rate of these periods and predict what they could be in the future and how these results could effect our society in the future.

- \*CUNNING RUNNING** \$45.00  
**Jacaranda Wiley**  
 Cunning Running allows up to four students to practise basic mapping skills including map language, compass directions and alphanumeric grid-square references. Students must plot a fast and efficient course around the countryside. (School Licence)
- \*DESIGNING AN ENERGY-EFFICIENT HOME** Prologic \$70.00  
 The program allows students to design and construct a theoretical house. Students draw up their design on the computer and make decisions about the location, orientation, building materials, roofing, flooring, insulation and window shading. The students design and construction decisions are assessed by the computer and a breakdown of the house energy balance is given. The guide and worksheets provide a framework for the program.
- \*DEVELOPING LIVING SKILLS** Prologic \$70.00  
 This simulation takes individuals or groups of students through the experience of living independently for one year. They work and carry out social activities, by making decisions from random choices prompted by the computer. At the end of the period they can assess their financial and social status. By simulating typical events in the life of a young adult in a large city, this product develops a better understanding of the decisions that have to be made, including the values that may be adopted by young people.
- \*THE DREAM MACHINE** Prologic \$70.00  
 This database includes details of over fifty different makes of car and their registrations in each state over the period 1960 to 1983.
- \*DINOSAUR DISCOVERY** Jacaranda Wiley \$85.00  
 This program is designed to be the central component of a class's involvement in such activities as exploration, mapping, creative writing, art, library project and reading. The challenge is to find a fossilized dinosaur egg and eventually hatch it using a special incubator in a secret laboratory on a secluded island. Students are confronted with many problems which they have to solve to be successful. Conditions change from game to game. The package includes an explorer's diary, black-line masters and a teachers guide.
- \*THE FIRST FLEET DATABASE** Tasmania Media System \$35.00  
 A database containing information about the convicts who arrived with the First Fleet in 1788. The contents of the package include the disk, 32 student worksheets, 1 hard-copy print-out of the data and 1 teacher's guide.
- \*GOLD DUST ISLAND** Jacaranda Wiley \$49.00  
 This program provides an opportunity for students to compare cooperative and non-cooperative behaviour. It emphasises the need to share ideas and resources and is therefore suitable for social science courses.

- \*HOMETOWN** Active Learning Systems \$110.00  
 This package allows students to store and analyse information collected in field surveys. The database has 9 open fields which enable students to include information of special interest to them. The activities involved in the use of this package include: sampling, collecting and recording data, collating information, problem solving, graphing, interviewing, map reading, interpreting results, discussion and debating.
- \*HOUNDS AND HISTORY** Prologic \$70.00  
 The dog registration records from a municipal council in 1885 provide the data for this package. There is information about the breed, colour, sex and age of each registered dog, as well as the owner's name and place of residence. This package is suitable for local history, geography, social studies and computer awareness.
- \*HOW MANY?** Prologic \$70.00  
 Calculating the population of animals requires both practical and mathematical skills. This program simulates two counting methods: aerial survey and capture-recapture. Students are able to carry out experiments into estimating the population of a variety of animals found in Australia. The package includes teacher and student notes.
- MICROZINE SERIES** Ashtron Software \$49.95 each  
 Each of these Microzine volumes contains a simple filing program. In *Microzine 1*, the program is called *Secret Files* which can be used to organise information. In *Microzine 4*, *Log It* keeps track of sport scores, marks etc. In *Volume 6*, *Olympic Mail* contains some olympic details and these may be added to or amended.
- \*ONE WORLD DATABASE** Active Learning Systems \$110.00  
 A database of demographic, political and economic information about many countries in the world. It allows the user to search and analyse the database according to criteria selected. It teaches research and data interpretation in the fields of geography, social science and current affairs. Documentation includes teachers' notes, student worksheets and step-by-step operating instructions.
- THE OTHER SIDE** HBS International \$99.00  
 This program is a two team computer/board game with a peace and conflict theme. The game begins with the world in a state of scarce resources and sensitive national defense systems. Limited communications lead to misunderstandings. Only through co-operation and understanding can achieve the goal to build a bridge between the two nations.

- \*QUICK CARTAGE COMPANY** Jacaranda Wiley \$45.00  
 The program allows up to four players to travel around a city and local area. Two maps of different scales are provided and the player has to collect construction materials and deliver them to the appropriate building sites. Basic mapping skills with different scales are reinforced by this program. (School Licence)
- \*RAFT AWAY RIVER** Jacaranda Wiley \$49.00  
 An adventure simulation that provides students with an opportunity to develop skills in reading comprehension, communication, co-operative behaviour and problem-solving. From two to six players work to survive by fishing, collecting food and wood for the fire. (School Licence available)
- \*SCAVENGER HUNT** Jacaranda Wiley \$35.00  
 Up to four players set out on a scavenger hunt. Each must find five objects which the computer randomly selects. To move their stick figures students must negotiate obstacles. Students must use the eight major compass points for giving direction and then enter a distance. The package scores for the moves and the number of items collected. (School Licence available)
- \*SHEEP DOG TRIAL** Jacaranda Wiley \$35.00  
 A grid game for two students. As well as using alphanumeric grid references, this program encourages logical thinking and co-operative strategy planning. Suitable for ages 7 to 13 (School Licence available)
- SOUTH DAKOTA** Micro Nationwide \$63.00  
 This simulation, based on a grain growing farm, provides an easy to use simulation for students from year 5 onwards. It highlights the problems faced by small businesses, the application of mathematics and how economic theory works. The user controls the crop to be planted, the number of helpers to be hired, the amount of seed purchased and the type of livestock to be purchased (if any). Finance can be from the sale of land, bank loans or sale of crops. The cost of land fluctuates and money is needed to clothe and feed the family. Taxes are also collected based on what is earned from the harvest.
- \*STANDING ROOM ONLY** Prologic \$70.00  
 This simulation allows students to experiment with the different factor that affect the population growth of Australia until the year 2050.
- TRAVELS WITH ZA-ZOOM-THE WORLD** Edusoft \$59.95  
 This program allows students to take the role of an explorer and by observations determine where in the world Za-Zoom the geography genie has placed them.

- TREASURE HUNTER** Grolier \$49.95  
 This program helps students to develop skills in researching facts and interpreting charts and maps. By using the explorer's log, players search the area gathering clues to piece together the treasure map.
- UNLOCKING THE MAP CODE** Edusoft \$199.00  
 This program includes six maps and involves students in developing various geographical skills while studying land forms, interpreting map symbols, directions, locations scales and time. Package includes a teachers guide plus a black-line student workbook.
- WESTWARD HO!** McGraw-Hill \$49.95  
 This program is one in the Social Studies Series. *Westward Ho!* involves students joining a wagon train on the journey west to California. The skill of the player will indicate whether or not they make it to their destination.
- \*WHAT'S IN A NAME?** Prologic \$70.00  
 This program contains information from the birth notices in "The Age" in 1920, 1940, 1960 and 1980. Data is recorded by year, sex and name, so students can retrieve general information such as the most common female name. The guide includes worksheets with a variety of exercises, as well as operating instructions.
- \*WHERE ARE WE?** Prologic \$70.00  
 Children move to eight locations on the screen, using the compass points and receive random information about what exists at these locations. From the clues they can: determine the type of area shown, name each location and draw a map of the area. The program also contains a blank framework so that children can plan their own map and write in clues for others to use. The teacher's manual provides various strategies and teaching activities.
- \*WOODLAND FOODWEBS** Prologic \$70.00  
 This program allows the student to construct a foodweb using Australian animals, and to investigate their interaction over a fifteen-year period. The student can also simulate the introduction of foreign species as well as noting the effects of drought on the ecosystem. The changing nature of ecosystems and the impact of exotic animals are highlighted. The accompanying guide book includes worksheets which provide a variety of exercises.
- WORLD ATLAS ACTION** Dataflow \$69.95  
 With the aid of maps and a game students can learn the locations and important facts about the different countries and regions of the world.

**28. SPECIAL EDUCATION**

This section contains a selection of programs and devices available for use with children having special needs. It is by no means exhaustive or exclusive. Other sections of the directory may well have programs equally suitable for children with special needs and readers are encouraged to consider both this section and the relevant curriculum area they wish to enhance with a piece of computer software.

**BOPPIES GREAT WORD CHASE \$39.95****Dataflow**

This is a game of word recognition, word creation and spelling. There are 256 built in words though teachers may individualise lists. Students move Boppie around a maze, gathering letters in the correct order to spell out words. 8 levels.

**BRaille-LINK \$1200.00**

Quantum Engineering Design  
Braille computer terminal (import).

**BRaille-n-PRINT \$1594.00**

Quantum Engineering Design  
System, with EXP 500 "Daisy Wheel" Letter Quality Printer (in lieu of QE-80).

**BRaille-n-PRINT Mk11 \$1320.00**

Quantum Engineering Design  
Braille to text translation system, including QE-80 Dot Matrix Printer.

**CALCTALK \$195.00**

Quantum Engineering Design  
Calctalk turns the keyboard of an Apple into a 24 function scientific calculator. Numbers, Function keys and the answers on the display can be voiced aloud.

**COGNITIVE REHABILITATION \$595.00****Dataflow**

The four programs were developed to address the variety of organizational deficits which typically result from traumatic brain injury and other neurologic impairments. The package includes a fifth disk which is the authoring program. The first of the four programs, Categorization, provides 11 lessons of categorization activities. The second, Sequencing offers 12 individual lessons covering sequencing from simple numerical sequencing to verbal sequencing. Association, provides 10 lessons ranging from simple association to analogous reasoning. Memory, offers a variety of recognition and recall activities in 13 different lessons. The authoring program provides an easy-to-use format for expanding or individualising activities from the four core disks.

**\*DIRECT HELPER \$450.00****Dataflow**

The Direct Helper scheme is a way of helping students of all ages with reading difficulties to learn to read. The program aims to establish word-decoding, story reading and spelling skills. There is also special emphasis on the left to right sequencing of letters and

words. Any number or new word lists and stories can be entered into the computer by the parent or teacher. Once the material has been prepared for use, the student can operate the computer largely on his own.

**ECHO-PLUS \$295.00**

Quantum Engineering Design  
Voice and Music synthesiser.

**EDUWARE DECIMALS \$59.95****Ozisoft**

The decimals program includes conversion, rounding off, percentage and each of the decimal operations. Teacher management is included.

**EDUWARE FRACTIONS \$59.95****Ozisoft**

This program covers definition and parts of the fraction and each of the operations. A teacher management system is included.

**FUN WITH DIRECTIONS \$79.95****Edusoft**

Students learn that words are rows of letters, that letters must face a certain way and be in a given order. A colourfully animated program that may be printed.

**HEY DIDDLE DIDDLE \$49.95****Edusoft**

Continuous display of 30 rhymes with pictures and music. Allows beginning readers to see each rhyme formed in slow motion with words and pictures. More advanced children can unscramble the eight-line nursery rhyme against the clock or another player.

**LETTERS AND FIRST WORDS \$57.95****Edusoft**

Uses graphics in three separate programs to help children learn to identify letters, recognize associated sounds, and begin to spell simple words. Uses upper and lower case. Arithmetic facts with a graphics "story".

**MAGICAL MYTHS \$59.95****Edusoft**

Consists of 5 modules, over 1000 comprehension questions. Create your own myth and related questions.

**MATH BLASTER \$69.95****Edusoft**

Contains over 600 problems covering addition, subtraction, multiplication, division, fractions and decimals. An easy to use editor allows teachers to enter problems. Questions are presented as flash cards, questions with the answer missing, questions with one of the operands missing and as an invader type arcade game.

**MATHS CONCEPTS I & II \$39.95****Dataflow**

A two-disk program covering the number concepts of before-after, prime numbers, less-than/greater-than, place value, odd/even, decimal words, rounding, counting by 2's, 5's and 10's. Suitable for 7 to 11 year olds.

**MUPPET LEARNING KEYS KID'S COMPUTER KEYBOARD** \$149.00  
**Edsoft**

The Muppet Learning keys is a novel product that helps children between the ages of three and six learn letters, numbers, and colours with the assistance of the Muppets and their new computer keyboard. Muppet Learning keys simulates the familiar contents of the child's school desk - ruler, water colour set, penmanship slate, compass and arithmetic exercise book. Muppet learning Keys include such features as the alphabet laid out in alphabetical order, the numbers 0-9, a Go key, Stop Key, Oops and Help keys, and Eraser key ... all in order and sequence that will relate to the child. The keyboard comes with software developed by Sunburst that allows the child to discover the keyboard and the relationship between the objects, the alphabet, numbers and colours. (Apple II, IIe, IIc)

**MYSTERY SENTENCES** \$49.95**Ashtron**

There is a mystery sentence on the screen, but parts of it are missing - only the vowels have been revealed. Students must decipher the sentence in as few tries as possible, using the minimum amount of clues.

**OPTELEC CCTV** \$1660.00 to \$1930.00**Quantum Engineering Design**

Reading Aid, price range depends on options.

**PUZZLE MASTER** \$39.95**Dataflow**

Puzzle lovers will enjoy choosing from an assortment of existing pictures and dividing them up by cutting them into 2 to 800 pieces. Puzzles can be made easy or difficult. Pictures can be created by using powerful artistic tools.

**READING COMPREHENSION 1** \$79.95**Edusoft**

Recognising topic sentences, listing supporting details, summarizing main ideas, choosing titles and evaluating details.

**READING COMPREHENSION / WHAT'S DIFFERENT** \$49.95**Edusoft**

Select the word that doesn't belong in the series. Analytical skill and reading comprehension are the keys to mastering the challenge.

**READING FOR DETAIL / RACE TRACK****Edusoft**

\$79.95

Compete in a horse race, answer questions on who, what, where and when on the way. Program can be printed.

**\*REMEDIAL READING PROGRAM**

Public Domain, Send disk & \$5.00 to cover costs  
Gainford, Mr M.

Allows any text file up to 200 words produced by a word processor to be displayed at varying speeds. Simple students records are stored and may be viewed by the teacher in table or graphical form.

**SEQUENCE/WHAT COMES NEXT** \$79.95**Edusoft**

Arrange short reading selections by topic and organise the groupings of paragraphs in proper sequential order.

**SMART EYES** \$59.95**Addison-Wesley**

Increase reading speed and comprehension. Concentrates on physical aspects of reading: eye movement exercises, paced reading and eye fixation exercises.

**SPEED READER II** \$104.95**Edusoft**

Complete speed reading program featuring peripheral vision exercises, column reading training, timing speed, comprehension tests and easy to use editor for your own data. Additional data disks available at \$39.95 each.

**TALES FROM THE ARABIAN KNIGHTS****Edusoft**

\$59.95

Enhance the child's reading comprehension, creative writing and language skills. Includes three stories with animated graphics and over 600 multiple-choice and fill-in reading and vocabulary questions.

**TALKING SENSIBLE SPELLER** \$295.00**Quantum Engineering Design**

A fast, reliable, easy-to-use spelling verification program for WORD-TALK text files. Allows you to check any size document. An 80,000 word dictionary is provided that can be personalised. It also analyses word usage and gives a word count.

**TALKING SOFTWARE-BRAILLE TALK****Quantum Engineering Design**

\$195.00

This program will take any standard APPLE Text file and turn it into Grade II Braille. The Cranmer Modified Perkins Braille and the VersaBraille are fully supported as well as virtually any other Braille output device.

**TALKING SOFTWARE-DIRECTORIES****Quantum Engineering Design**

\$95.00

Directories is a quick easy facility that you can use for organising, storing, and retrieving information.

**TALKING SOFTWARE-TALKING TRANSEND II****Quantum Engineering Design**

\$295.00

This program is a state-of-the-art, intelligent terminal facility. You can download a file from your host, review and/or edit the file off line, and later re-establish the link and transfer the file back again. It can be used with the Source and CompuServe, or it can allow your computer to be directly connected to a mainframe.

**TALKING SOFTWARE-WORDTALK****Quantum Engineering Design**

\$295.00

WORDTALK is a full-featured word processing program that gives "what-you-see-is-what-you-get" printing. Each key typed can be spoken aloud. Text can be read back in words, lines or full screens.

**TALKING SOFTWARE PACKAGE****Quantum Engineering Design** \$895.00

Includes: DOCUMENTS\* Word processor, INFO\* Data Base Manager, AGENDA\* Calendar, ECHO\*\* Voice Synthesiser and software.

Package as above, but with QE-80 Dot Matrix Printer and interface card, manuals (print and cassette) and spare disks \$1295

Package as listed, but with EXP 500 Letter Quality Printer (in lieu of QE-80) \$1695.00

**TIME CAPSULE/READING SKILLS****Edusoft**

\$79.95

Players travel through time and answer questions that cover detailed aspects of reading. Lets you add your own stories. Automatic record keeping. Program can be printed.

**WIZ WORKS**

\$49.95

**Dataflow**

Students practice basic arithmetic skills with a wizard with a magic wand. Teachers may insert their own game lists in this program.

**29. TEACHING BASIC****ADVANCED APPLESOFT BASIC \$75.00****HBS International**

This set of training materials covers such topics as PEEKs, POKEs, CALLs, sorting, game controls, and files. There are discussion problems, sample programs, handouts, assignments and disk.

**APPLE ASSEMBLY LANGUAGE \$75.00****HBS International**

This program provides an introductory course into Apple's Assembly Language. This comprehensive package contains 36 sequenced exercises, six utility programs, lesson outlines and handouts. Plus there is a very good simulation of the 6502 microprocessor.

**APPLE PROGRAMMER'S & DEVELOPER'S ASSOC. (A.P.D.A.) US\$35.00**

An organisation specifically established to aid programmers and developer's of Apple software get access to technical information not normally distributed through the dealer network. The group publishes a monthly magazine and is administered by Call A.P.P.L.E. Members are able to get answers to technical questions and purchase manuals and journals at reasonable prices. Application forms may be obtained by writing to A.P.D.A., 290 SW, 43rd St., Renton, WA 98055. USA.

**THE APPLESOFT COMPILER (TASC)****Microsoft \$198.75**

This program will compile your Applesoft BASIC programs. The program is designed to run using the DOS 3.3 operating system.

**\*APPLESOFT PROGRAMMING UTILITIES****Bartlett, Mr. W.D. \$18.00**

This disk contains a number of relocatable binary routines including two routines for obtaining text on the hi-res graphics page and a note generating routine. Also included is a utility to provide a screen editing facility.

**BASIC COMPUTING****Student's book \$4.20****Teacher's book \$4.80****Ashtron Software**

This package consists of six workbooks suitable for grades 1 to 6. Each 64 page workbook features exercises to prepare children for use of the computers. Exercises include: thinking like a computer, what is a computer, problem-solving, understanding process, giving directions to a computer, flowcharts, parts of a computer, using the computer, computer programs, input and output and computer terminology.

**THE BASICS OF BASIC \$119.95****Edusoft**

This package starts you off learning the special keys of the keyboard, how to edit, how to save information and retrieve it, how to make the computer print etc.

**BLAZING THE BASIC \$69.95****Edsoft**

Blazing the Basic trail blazes some trails itself. It is an introduction to problem-solving strategies in general and BASIC programming strategies in particular. (Apple II+, IIe, IIc) (\$165.00 for 10 Pack)

**COMPUTER CONCEPTS \$59.95****Edusoft**

With this program students can learn about computer history, how a computer system works, parts of a computer system, flowcharting, simple BASIC statements and computer use.

**DISCOVER BASIC \$29.95****Ashtron Software**

Provides an introduction to Applesoft BASIC using 34 demonstration programs to promote student experimentation. The package includes a Teachers Guide, Student Workbooks, Demonstration Disk and Solutions Disk.

**DISCOVERING BASIC \$69.95****S.R.A.**

This program aims to teach fundamental programming concepts and shows how to write simple programs in BASIC. Using the diskette provided students work at the microcomputer to perform exercises that relate to the concepts presented in the Student Workbook. The package includes the diskette, 20 student workbooks and a teacher's edition of the student workbook.

**EXPLORING SORTING ROUTINES****HBS International \$60.00**

This package is designed for use in developing a students understanding of different sorting routines by exploring and comparing the various programs.

**FOR YOUR NEXT ADVENTURE \$69.95****Edsoft**

Takes students on an adventure through the five floors of the Robot Corporation Building. Students find their way through various floors by using simply FOR-NEXT programming statements.

Each floor contains at least one learning experience that will increase students' abilities to work with row/column matrix notation. These experiences increase students skills and enable them to use more complicated FOR-NEXT statements. (Apple II+, IIe, IIc). (\$165.00 for 10 Pack)

**GETTING DOWN TO BASIC****Apple Public Domain**

A simple introduction to BASIC program provided with the Apple IIc as an introduction. This program also works on the Apple IIe and may be obtained from Apple Dealers.

**THE GLASS COMPUTER \$60.00****HBS International**

The Glass Computer, also known as **The Three R's of Microcomputing** deals with the primary functions of a computer: Input, Output and Process. Students can start to grasp these concepts as they learn about the BASIC language, through graphical demonstrations of how a computer works on the inside.

**GLOBAL PROGRAM LINE EDITOR****Imagineering** \$99.95

This very handy utility will allow you to edit your BASIC program listings. Features include search and replace, remove all spaces, auto line numbering, macro key entries, etc.

**HANDS ON BASIC PROGRAMMING****Edusoft** \$79.95

This program comes with a 200 page book that will lead you through BASIC programming techniques and the syntax of Applesoft BASIC.

**HOW TO PROGRAM IN BASIC TUTORIALS****Ashtron Software** \$29.95

This package contains a workbook and diskette containing a series of 14 tutorial exercises designed for students with no previous knowledge.

**THE IF'S & THEN'S OF PROGRAMMING****HBS International** \$45.00

This program teaches the concept and importance of branching. Students learn the difference between conditional and unconditional testing.

**AN INTRODUCTION TO APPLESOFT COMPUTING****Edusoft** \$80.00

A software package for beginners in The Apple Core series. Teaches about the computer and how to create your own programs. Disk 1 contains 14 teaching modules giving explanations and examples of programming statements. Disk 2 contains 11 learning tutorials complementing the modules on disk 1.

**KIDS STUFF I & II** \$45.95**Edusoft**

Interactive programs that teach the child to become the master of the computer by introducing the fundamentals of BASIC programming in a manner that requires no computer background. Suitable for ages 9 and up.

**LEARN MORE APPLESOFT COMPUTER PROGRAMMING****Edusoft** \$95.00

This is the second part of the Apple Core series and teaches advanced methods of using and programming the Apple. Areas covered include low-resolution graphics, high-resolution graphics, the tab commands, complex editing, incorporating paddles and sound, use of random numbers, work with data lists, assigning variables, storing data on disks and using the maths functions sine, cosine, tangent, etc. Disk 1 contains 13 teaching modules and Disk 2 a tutorial disk with over 70 programs.

**MEET THE COMPUTER****- BEGINNING BASIC** \$45.95**- INTERMEDIATE BASIC** \$49.95**Edsoft**

A how-to program for students and teachers who want to develop computer literacy from the beginning or simply brush up on their computer skills. Colour coded activity folders teach BASIC programming statements. At the beginning level, each folder covers a specific aspect of programming, such as the PRINT statement

and IF-THEN statements. At the intermediate levels, you'll find step-by-step instructions on how to use a variety of special functions, commands and statements. Concepts include random numbers, array and graphics. (Apple II+, IIe, IIc)

**MICROS MADE EASY** \$75.95**S.R.A.**

An introduction to microcomputers for the absolute beginner. The program is in five sections: keyboarding, computer capabilities, the parts of a computer, simple programming and the elements of programming. The package includes three disks and a user's manual.

**MOUSE IN THE MAZE** \$45.00**HBS International**

How would you tell a mouse to find its way out of a maze? This package teaches students, through the use of a game, the application of algorithms in coding and programming a computer to solve a problem.

**\*PROGRAM DEVELOPMENT SYSTEM****Bartlett, Mr. W.D.** \$25.00

A program designed to enable the production of efficient, well structured Applesoft programs using a USCD-like editor for producing source files that are well documented and well laid out.

**PROGRAMMING PRESENTATION** \$75.00**HBS International**

This package contains materials for 12 one hour introductory sessions on a number of Applesoft BASIC programming topics, including music, shape tables, sort routines and graphics.

**PROGRAMMING SPECIAL PROJECTS****HBS International** \$45.00

This package teaches students a variety of commands in BASIC and then reinforces what they have learnt by playing and continually modifying a simple adventure game.

**SHORT CUTS** \$69.95**Edusoft**

A utility to expand the capabilities of Applesoft BASIC.

**SPECTRUM** \$69.95**Edsoft**

The logic game challenges students to determine a hidden pattern of bars of different colours or shapes with a few clues as possible. Once a pattern is recognized, the student tries to duplicate it by entering their own-pattern program. (Apple II+, IIe, IIc). (\$165 for 10 Pack)

**STEP-BY-STEP TWO** \$149.95**Edusoft**

Like "The New Step-by-Step", Step by Step Two is a package to help teach an individual about intermediate BASIC, machine language and high-resolution graphics.

**STEP-BY-STEP THREE** \$149.95**Edusoft**

Like the New Step-by-Step, Step by Step Three is a package to help teach an individual about the disk operating system, DOS, and input/output routines.

**STRUCTURED BASIC** \$160.00**Godfrey Deane**

A structured BASIC program for the Apple II+, IIe and IIc, developed in the UK, which supports all Pascal features and is interpretative. The package includes a diskette and manual. The program supports both the Applesoft graphics commands and some enhance commands.

**THE NEW STEP-BY-STEP** \$149.00**Imagineering**

Software and audio tape to teach BASIC programming. Graphics, animation and sound effects supplement the disk and a workbook is provided for review.



- LEARNING THROUGH LOGO** \$79.95  
**Edsoft**  
 A Beginning course for the novice - no computer experience required. Takes students through step-by-step discovery of beginning Logo commands. Teaches Logo language while it enhances a students creative ability.  
 Includes a series of twenty-five activity cards. Each card presents a concept and provides practice in Logo. Comes with a diskette of Logo games that reinforce the concepts the students have discovered on the cards. Also includes a Teachers Guide with a reproducible student log. Excellent for students (or Teachers) who want to learn the LOGO language at their own pace. (Apple II, IIe, IIc)
- \*LOGO FOR KIDS** \$20.00  
**Sutton Miss. D.**  
 This package has been designed to provide teachers with background information, teaching ideas and materials to introduce LOGO to young children. Package consist of teacher's manual, blackline masters and a disk with the different routines on it.
- \*LOGO UTILITIES DISK - 64K** Public Domain  
**Apple Computer**  
 A diskette of programs to help teachers use LOGO with children from 7 onwards. It is a public domain diskette compiled by Diana Ryall (Apple Education Advisor) and is available through the state Computer Education Groups or most dealers. The notes are included on the diskette as a text file.
- LOGO, WORD AND IDEAS** \$75.00  
**HBS International**  
 The manual and disk addresses the programming concepts of recursion, manipulating words and lists of words and creating interactive procedures. Includes classroom strategies and applications of top-down design.
- TAKING CONTROL** \$80.00  
**Softime**  
 A video which examines the use of control, modelling and practical applications in the classroom.
- \*TASMAN TURTLE 2** \$350.00  
**Flexible Systems/Edsoft**  
 The Tasman Turtle 2 can be controlled by any personal computer. The robot is controlled by the computer via a powerful infra-red transmitter, thus allowing free access by the turtle to the floor. The turtle is powered by two specially sealed life long batteries. The robot can be programmed by LOGO, BASIC, PASCAL, FORTH or directly via machine language. The one computer can control more than one turtle.
- TERRAPIN LOGO** \$149.95  
**Edsoft**  
 A powerful version of Logo both beginners and experts, developed with support from the original MIT Logo group. By using simple commands, students can draw pictures and make music: and by combining programs, even young children can do surprisingly sophisticated work. (Apple II+, IIe, IIc) (\$392 for 10 pack)

- THINKING WITH LOGO** \$49.95  
**McGraw-Hill**  
 This is a teaching resource for primary and secondary schools. The package takes a structure approach with simple graded worksheets which introduce Logo, develop thinking skills and mathematical concepts. The package comes with a teacher's manual containing over 120 black-line masters and a disk, to be used with Apple Logo DOS 3.3 version, with over 20 games.
- TURNING POINT** \$80.00  
**Softime**  
 A video about the use of Logo by primary school students
- THE VALIANT TURTLE** \$385.00  
**Softime**  
 A new design and shaped remote controlled robot turtle.

## 31. TEACHING PASCAL

- APPLE PASCAL 1.3** \$275.00  
**Apple**  
 Apple Pascal turns your computer system into a software development system for professional programming. A version of UCSD Pascal, Apple Pascal contains enhancements which allow it to support the special features of the Apple II. The package contains an operating system, a full-screen editor, a Pascal compiler, a 6502 assembler and a linker. There is also a utility program to prepare, handle files and perform other system reconfigurations. The program can also perform turtle graphics. The package comes with several sample programs, manual and four disks. A minimum of 64K is required with an 80 colour display.
- APPLE PROGRAMMER'S & DEVELOPER'S ASSOC (A.P.D.A.)** US\$35.00  
 An organisation specifically established to aid programmers and developer's of Apple software get access to technical information not normally distributed through the dealer network. The group publishes a monthly magazine and is administered by Call A.P.P.L.E.. Members are able to get answers to technical questions and purchase manuals and journals at reasonable prices. Application forms may be obtained by writing to A.P.D.A., 290 SW, 43rd St., Renton, WA 98055. USA.
- EXPLORING SORTING ROUTINES** \$60.00  
**HBS International**  
 This package is designed for use in developing a students' understanding of different sorting routines by exploring and comparing the various programs.
- \*G - PASCAL** \$85.00  
**Gammon and Gobbett**  
 This is a high-speed Pascal subset compiler for the Apple II. It contains a compiler, text editor and interpreter and compiles at over 6000 lines per minute.
- INSTANT PASCAL** \$130.00  
**Apple**  
 This version of Pascal is designed for ease of use whilst teaching the language to students. It implements the mouse and allows step by step tracing of code. The program is also provided in a 10 pack for use on multiple stations. The program is compatible with the Apple IIGS.
- INTRODUCTION TO PASCAL FOR PROGRAMMING TEACHERS** \$90.00  
**HBS International**  
 This program presents teachers with a thirty-hour session on PASCAL. The program covers the fundamentals of PASCAL to the complex structures of the language. Comes with a disk and manual, however, Apple PASCAL must be purchased separately.

- \*MULTIUSER SYSTEM** \$18.00  
**Bartlett, Mr W.D.**  
 The package contains a formatting routine designed to set up a disk whose directory is divided into 7 separate accounts. Each account is accessed by giving its account number and password. Seven students may share the same disk and can be used to illustrates the idea of security.
- PASCAL LEARNING AIDS** \$75.00  
**HBS International**  
 This is a collection of sixty Pascal programs of increasing difficulty. They can be run, studied and analysed. Require Apple Pascal to run.
- SUPERPILOT** \$269.00  
**Apple Computer**  
 A powerful PASCAL based authoring language allowing teachers and students to produce learning materials combining text, graphics and sound without the need to be an expert programmer. A good introduction to PASCAL.
- THE WRITER'S ASSISTANT** \$90.00  
**HBS International**  
 This package is a simple to use Pascal Editor. The program takes the form of a word processor thus allowing programs to be written and edited before compiling.
- TURBO PASCAL** \$119.00  
**Imagineering**  
 A high-speed Pascal subset compiler for the Apple II. It contains a compiler, text editor and interpreter and compiles at over 8000 lines per minute.

**32. TEST & QUIZ MAKERS****THE ADAPTABLE SKELETON \$59.95**  
**Edusoft**

This program can create true/false and multiple choice exercises. Material entered can be presented to each student either as drill and practice or as a quiz.

**CHOICEMASTER \$59.95**  
**Edusoft**

This program allows for the designing of multiple choice tests. Up to 30 question with 3, 4 or 5 choices.

**CLOZEMASTER \$59.95**  
**Edusoft**

This program with the aid of a simple word processor can create, edit, delete, print, transfer and rename cloze passages of 50 lines.

**COMPUCAT QUIZWARE**  
**Start-up Disk \$79.95, Datadisk \$21.96**  
**McGraw-Hill**

This package is a quiz tester with a range of datadisks available. Each program features multiple-choice questions and tests students on factual information by different grades and levels. The pace is fast, and the computer tells which answers are right and which are wrong. Features such as "Bonus Points" and "Beat Your Own Score" will keep your students interest alive. Subjects include; science, social studies, vocabulary, grammar, civics, history health, geometry, mathematics, drugs etc.

**\*COMPUTER ASSISTED TESTING SYSTEM**  
**Logistics \$60.00**

Multiple choice tests are frequently used for diagnosis or measurement of performance. Analysis of student responses calls for more than just a raw score or percentage score. You may wish to rank students or perform detailed analysis of each and every question. You may wish to measure their strengths and weaknesses of individual students or a whole group. If you are designing a new test then you may wish to perform a distractor and difficulty analysis. The CAT system provides all these reports and others in the form of histograms. All, or selected reports can be output to the printer. Multiply copies may also be printed if desired. The CAT system supports regular diagnostic testing and assists the development of good tests by supplying valuable data to the teacher, both on the test questions and about the students.

**\*COMPUTER BASED INSTRUCTION (CBI)**  
**Logistics \$120.00**

An easy to use instructional package designed to allow teachers to produce computer assisted instruction lessons in minutes.

- \* CBI requires no programming skills
- \* CBI uses menu driven easily understood functions.
- \* CBI supports five question types, such as Fill-in the Blank, Tex Choice, Multiple Choice etc.
- \* CBI captures student errors for detailed reporting.

- \* CBI has numerous teacher management functions.
- \* CBI supports teacher password.
- \* CBI includes a screen editor for lesson editing.
- \* CBI comes with an easy to read manual.

**CREATE A TEST**  
**Program Disks \$89.95, Question Disks \$49.95**  
**Edusoft**

A Canadian program suited for teachers, parents and students of all ages. A computer program that makes formatted tests in 15 minutes. The system presently has a data base of about 5,000 questions (14 Question disks) of Junior and Senior Chemistry and also 2,000 questions (5 Question Disks) of Junior Science. Write your own question disks with built-in text editor. This program can print almost any kind of question including true-false, multiple choice, fill in blanks, matching, and problem solving. Question disks with over 400 questions each:

**CHEMISTRY** for High School  
**BIOLOGY** for High School  
**CHEMISTRY** Advanced (10 disks)  
**PHYSICS...Heat, Light & Astronomy**  
**PHYSICAL SCIENCE** for 9th grade  
**PLUS MANY OTHERS**

**Note:** Question disks require Program disk.

**CREATE LESSONS \$29.95**  
**Dataflow**

This program allows the teacher to design and write different lessons. Each lesson begins with 9 lines of instruction, questions are followed by a HINT frame or explanation. Questions can be randomly or sequentially selected, while the program takes care of the record keeping.

**CROSSWORD MAGIC: TEACHER EDITION**  
**Ashtron \$69.95**

Crossword Magic allows the user to create custom designed crossword puzzles on screen and print them. You choose the words and clues then the computer automatically places them in matrix. Supports most printers including Apple ImageWriter, Scribe, Dot Matrix, Epson, and Gemini.

**DRILL SHELL \$75.00**  
**Science Education Resources**

This program will help instructors create computer-assisted drills in any subject area. The routines control the order of question presentation and subsequently alter this list according to scientifically determined procedures. The package also maintains the scoring and storing data on disks.

**EA TEST WRITER \$69.00**  
**Micro Nationwide**

All popular test formats are available - Fill in, Multiple choice, True/False, Short answer plus other designs you want to create.

**EDUCATION CLASSICS \$25.00**  
**Apple Computer**

The Shell Games includes 3 computer aided instruction (CAI) programs, Mr. Multiple (multiple choice quizzes), Professor True (true-false quizzes) and Match Machine (matching items).

These quizzes cover a range of subjects from history, to science, to trivia. Because The Shell Games disk also contains its own Editor, you can choose your own quiz problems to place into each "shell". And you don't have to be a programmer in order to create highly successful quizzes. In a few minutes, you can enter a complete quiz into any one of the three quiz programs. Revisions can be made just as quickly. On the reverse side of this disk is the program "Elementary, My Dear Apple".

**THE ELECTRONIC FLASH CARD \$50.00**  
Science Education Resources

Allows use of a TV or monitor as a flash card utility. Supports user-created flash cards, math, vocabulary, question/answers, foreign word translations, etc. Supports foreign characters, accent marks and updatable partial stock format.

**FACT SHEETS \$49.95**

**Dataflow**  
This program will save you hours of work writing timed tests on multiplication facts or generate drills on addition and subtraction facts. The program generates worksheets and the corresponding answer key.

**THE GAME SHOW \$49.95**

**Edusoft**  
An educational tool for vocabulary development, this program uses animated colour graphics with the appearance of a TV game show. Varied subjects - biology to famous cities to nursery rhymes to advanced vocabulary and more. An easy to use authoring system allows you to add your own subjects. Lessons in 15 subject areas are included with the package. Additional Subject Diskettes (at \$21.95) include: WIN WITH WORDS 1:(6 to 9 years) - Language, Science & Social Studies, WIN WITH WORDS 11: (9 to 11 years) - Language, Science & Social Studies, PEOPLE, PLACES AND THINGS: (9 to adult), YOU AND YOUR WORLD: (6 to 9 year) and FOREIGN LANGUAGE WORDS - featuring Spanish, French and German.

**\*GAPMAKER...GAPTAKER \$70.00**

**Prologic**  
The program allows students and teachers to create cloze reading passages for use in other subject areas or by other students. The program comes with a simple text editor allowing the user to decide which words, phrases, sentence, letters or paragraphs to hide.

**LUCKY'S MAGIC HAT \$63.95**

**McGraw-Hill**  
A fun game of finding the pot of gold at the end of the rainbow. Students must first answer correctly questions given by Lucky the Leprechaun. Lucky shows a picture and/or a story, then disappears under his hat while a magic scroll provides clues to help students test their factual knowledge. The program incorporates a simple authoring system to allow teachers to create their own data disks. Additional datadisks on science and maths are available at \$35.15 each.

**MASTER MATCH \$49.95**

**Dataflow**  
Compete with the computer or a partner as this quiz show invites you to find logical matches in images and words under numbered mystery squares. Players use visual memory, factual knowledge and reasoning skills to win points. Use the authoring system to create your own lesson using pictures, concepts and words. Features: combined pictures and words aid visual learning. Memory is enhanced whilst learning vocabulary and concepts. Flexible teaching strategy is adaptable to any subject area. Additional subject diskettes are available for \$21.95 in BASIC SKILLS (6 to 9 years), SCIENCE AND MATH (6 to 9 years), MATH AND SOCIAL STUDIES (9 to 11 years) and FOREIGN LANGUAGES Spanish, French, German and Japanese.

**\*MULTIPLE CHOICE QUIZ \$10.00**

**Victorian Department of Education**  
A suite of two programs to maintain and test sets of multiple choice questions which is totally menu driven. The user does not need to refer to any Apple documentation or utility programs. The system has the following features: high speed machine code program, invalid response lockout, prompted file selection, inbuilt text and numeric editors, 120 characters per question, 4 answers of 37 characters each and space for approximately 250 questions per disk. The program may be used to prepare tests for students in years 5 to 12 for most subjects.

**NUMBER WORDS - Level 1 & 2 \$29.95**

**Dataflow**  
Lessons randomly present number words to the student. The built-in editor allows teachers to modify or create new lessons.

**P.D.Q. BUILDER \$69.95**

**Edusoft**  
The Practice Drill and Quiz program enables instructors to create and save questions on disk.

**QUESTIONMASTER \$59.95**

**Edusoft**  
This program is an authoring system suitable for any text-based subject. The package enables teachers to set up any type of question-answer routine in which the student is expected to type in the full answer. Caters for upper and lower case, remedial re-runs, pattern matching, alternative answers and the ability to print.

**\*QUIZ MASTER \$74.00**

**Higbie Software**  
Quiz Master is an authoring system allowing an instructor the fullest freedom in designing and implementing computer quiz/tutorials at any educational level, on any topic. The user and instructor need have no prior knowledge of computers or computer languages. The package includes an editor disk and a question disk. These disks are self-booting and should be used to generate working copies. Neither disk is copy protected and a disk-copy utility is included on the editor disk.

**\*THE RESULTS ANALYST \$30.00**

**Passionfruit**  
This disk enables the teacher to perform a series of powerful evaluations on multiple choice testing. Whilst it also acts as a corrector of tests, its main benefit is that it rigorously analyses the strengths and weaknesses of individual questions. In this way, a teacher can build up a set of good questions and be able to eliminate weak ones or modify them as needed. A printer and an understanding of basic statistics is needed.

**SEATWORK GENERATOR \$350.00**

**S.R.A.**  
A program to allow the computer to print out exercises on any of 316 math skills. Exercises are generated at random. Skills cover the following areas: the four operations on whole numbers, fractions and decimals, place value, ordering and comparing numbers, rounding, exponents, percentages, ratio, proportions, measurements, formulae, expressions, equations and integers.

**STORYBOARD \$59.95**

**Edsoft**  
This program allows teachers to type in a passage of text using the simple built-in editor and later replace the desired letters with asterisks and punctuation marks. The learner's job is to guess and solve the entire passage.

**\*TEST MAKER \$25.00**

**N.D.E.C.**  
This program allows you to enter details of question stem, up to five possible answers and the correct answer number for up to 100 questions per test. Questions can be multiple choice or true / false and can allow space for diagrams.

**THE TEST MAKERS EDGE \$79.95**

**Extra Study Diskette \$25.00**

**Edusoft**  
The program provides the practice tests which may be matching, true/false, fill-in-the-blank or multiple choice. An easy-to use Editor Option lets teachers or students create their own study list on diskette. Two Study diskettes are currently available.

Vocabulary - includes many interesting word lists, grouped by theme. These lists fit readily into your languages arts curriculum, and can be used as a 'mini-thesaurus' for creative writing projects. For grades 6-12.

**TESTCALC SYSTEM - THE ACADEMIC ASSISTANT S.R.A. \$770.00**

This program will score multiple choice tests with up to 5 response options, prepare test statistics including item analyses, frequency distributions and correlations. The system will serve 200 students - up to 20 scores per student and 100 items per test.

**TIC TAC SHOW**

**Program Disk \$63.95, Datadisk \$35.15**

**McGraw-Hill**  
This animated quiz show interacts with 1 or 2 players of any age as the program entertains, motivates and teaches. Comes with lessons in 14 subjects from Myths to Math. Use the authoring system to write lessons - no computer knowledge needed.

Additional Subject Diskettes at \$21.95 include: FUN WITH FACTS 1: (4 to 7 years) Language, Math and Social Studies, FUN WITH FACTS 11: (6 to 9 years) Language, Math and Social Studies, HISTORY: (9 to adult), YOUNG EXPLORER: (4 to 7 years) and FOREIGN LANGUAGE Q & A (all ages) Hundreds of subject questions in foreign languages featuring Spanish, French and German.

**\*TUTOR \$95.00**

**Consolidated Software Development**  
TUTOR is a Computer Managed Instruction System with a subject-orientated approach to Learning. Any number of diskettes can be created by the teacher (or the student) with a separate subject (or subject unit) on each diskette. Once the full range of questions has been entered upon the diskette a test can be set up upon request. This can be a student self-test (timed or untimed) or a teacher-controlled test (timed or untimed). Questions for each test are selected at random from previously organised question groups. Associated with each group is a teacher-entered percentage. This percentage is taken into account when selecting questions each time a test is requested. On completion of the test, the student is provided with references for wrong and uncertain answers. TUTOR handles: - Any number of subject areas each on its own diskette. - Up to 80 questions on each diskette.

- Questions grouped according to the user's requirements.
- Test/examinations structured according to the user's requirements.

**\*UNIVERSAL TUTOR \$75.00**

**Lothlorien**  
The Universal Tutor is a program designed to utilize the multi choice answer system used in many schools and also in the Higher School Certificate examination in N.S.W. The question is presented to the student along with the four alternative answers: A, B, C, & D. The student indicates his choice by typing in the appropriate letter, and then pressing "return". Should the student repeat any particular set, he will find that the answers are in different positions and that the questions themselves are presented randomly. Entry of new material is simple. The flashing cursor is always in the right place to prompt entering of the question and then the four alternative answers.

**USING TESTS \$49.95**

**Edusoft**  
This package illustrates and describes how to interpret test results and explains the differences between norm and criterion-reference tests.

**WORD SEARCH \$29.95**

**Dataflow**  
A series of words are entered to create a seek-a-word exercise. The computer creates the exercise according to the specifications of the teacher. Words can be overlapped, backwards and diagonal, top to bottom. An answer key can also be printed.

**SECTION B : SOFTWARE SUMMARIES FOR THE MACINTOSH FAMILY**

**Typical Entry:**

```
*****  
*  
*           {Name of the Program}           {Education Price}      *  
*           {Name of the Software Distributor} *  
*  
*           { PROGRAM DESCRIPTION           } *  
*  
*****
```

**Notes:**

1. An asterisk before the name of the program means that it was developed in Australia.
2. The address of the distributor of the software is listed in Section C.
3. Some educational software is available through Apple Dealers, software outlets and educational booksellers.
4. Where two distributors handle exactly the same software package, the cheaper supplier is listed.
5. Software listed is believed to be readily available.

## 1. ADVENTURES and SIMULATIONS

**AMAZON** \$61.00  
**StatusGraph**  
 This illustrated adventure requires the user to unravel the fate of a doomed expedition with the help of Paco the talking parrot.

**THE ANCIENT ART OF WAR** \$57.00  
**StatusGraph**  
 Simulation where you can re-fight some of the famous campaigns of yesterday.

**BALANCE OF POWER** \$65.00  
**StatusGraph**  
 This simulation gives you statistics and maps on the culture and economics of different countries around the world. It's a current events course with a focus on geo-political dealings of the nuclear age. Become the leader of either the USA or USSR and make your own decisions as to the arms race, foreign aid and allies.

**(BECOME A) BARON** \$74.95  
**Edusoft**  
 Amass a fortune as your personal empire grows in real estate. Combat rising rents, rates and vandalism.

**CHIPWITS** \$62.00  
**StatusGraph**  
 This program is the combination of a game and a programming language. Train your robot to detect, eat, zap or ignore different objects on the floor of the maze. Programs can be changed, has several level and subprograms can be written with the Icon-based Programming Language (IBOL).

**DEADLINE** \$67.00  
**StatusGraph**  
 A text adventure in which you become the detective to solve a murder in the family within 12 hours.

**DEJA VU: NIGHTMARE COMES TRUE**  
**StatusGraph** \$78.00  
 A graphic adventure that introduces new concepts into the playing and solving of adventure games.

**ENTREPRENEUR** \$68.75  
**Microsoft**  
 A market and business simulation for one or more players and the option of playing against the computer. Startup your company decide on the price, production, advertising, research and development costs and try to take control of the whole market.

**FLIGHT SIMULATOR** \$72.00  
**StatusGraph**  
 This simulation puts you at the controls of a small plane (prop or jet) and lets you roam North America.

**FOKKER TRIPLANE** \$99.00  
**InfoMagic**  
 A historical flight simulator where you as the pilot fly a Fokker triplane, battle with the enemy and fly under bridges.

**FORBIDDEN QUEST** \$53.00  
**StatusGraph**  
 The way the story ends up and develops along the way is up to the responses the users enters at any given situation.

**GATO** \$57.00  
**StatusGraph**  
 A simulation puts you in charge of an American submarine in World War II.

**GRAND SLAM** \$89.00  
**InfoMagic**  
 A tennis simulation where you are on the Grand Prix circuit, the French Open, Wimbledon, US Open and the Australian Open.

**HITCHHIKERS GUIDE TO THE GALAXY**  
**Edusoft** \$57.00  
 In the person of Arthur Dent, you'll bellow when your planet is demolished, laugh at your life being threatened by the Bugblatter Beast of Traal. Search the universe for a decent cup of tea or whatever it is you are looking for.

**LEGACY** \$54.00  
**StatusGraph**  
 Create a world in which you are a magician on search for a mystical orb. The program accepts full English commands.

**MAC INOOGA CHOO CHOO** \$59.00  
**InfoMagic**  
 A simulation of an electric train set, involving problem-solving skills.

**MAKE MILLIONS** \$64.00  
**StatusGraph**  
 A business simulation where you, the player, competes against the computer to take control of five companies, then run them profitably.

**MILLIONAIRE** \$89.95  
**Imagineering**  
 A simulation about the stock exchange, you start with \$10,000, then you are given a steady stream of market information. Call and put options are also dealt with.

**MURDER BY THE DOZEN** \$34.95  
**Edusoft**  
 Challenging game of logic and deduction for mystery buffs of all ages.

**PLANETFALL** \$39.00  
**StatusGraph**  
 This adventure starts off with the user being shipwrecked on a seemingly deserted planet, with only Floyd the Droid to help figure out how to get home.

**\*POPGENETICS 2** \$60.00  
**Science Education Resources**  
 Two population genetics programs that simulate a pair of alleles competing for a locus in population. Factors such as gene rifts and different kinds of inbreeding.

**ROGUE** \$42.00  
**StatusGraph**  
 A dungeon adventure where each game is completely different.

- SARGON III** \$59.00  
**StatusGraph**  
 A chess game with 9 levels of play, problem-solving modes, take back, change colours and play back. Comes with 107 stored classic games.
- TYCOON** \$67.00  
**StatusGraph**  
 A financial simulation based on the ups and downs of the commodities market.
- ULTIMA II** \$80.00  
**StatusGraph**  
 Adventure where you the user, take the part of a character who travels through land, sea, air, space and time in a quest to find and defeat the evil sorceress Minax.
- ULTIMA III** \$84.00  
**StatusGraph**  
 The next one in the adventure series where this time you explore the vast wilderness of Sosaria; dungeons, oceans and the Moon Gates to help solve the mystery.
- THE WITNESS** \$41.00  
**StatusGraph**  
 A text adventure where you have one night to solve the murder.
- WIZARDRY** \$79.00  
**StatusGraph**  
 A dungeon adventure game where you have to explore the maze and fight off the monsters and the evil wizard Werdna. Allows up to six players.
- ZORK I** \$48.00  
**StatusGraph**  
 A text adventure that lets players explore a strange underground empire. Uses full English sentences.
- ZORK II** \$60.00  
**StatusGraph**  
 The Zork adventure continues in the underground empire but this time beating off a wandering wizard changes the game plan.
- ZORK III** \$62.00  
**StatusGraph**  
 The last of the trilogy, the final chapter, this time you must confront the DungeonMaster himself.

## 2. ADMINISTRATION and SENIOR STUDIES

The programs listed here can be used for almost any task requested by school administrators for almost any administrative problem. The programs would also prove to be very useful in teaching both senior and advanced computer students.

\*\*\*\*\*

- BUSINESS ESSENTIALS** \$149.00  
**Imagineering**  
 A word processor, mail merge and database application package.
- CHART** \$123.75  
**Microsoft**  
 This program allows the user to create a variety of graphical outputs by keying data items. Select from 42 different styles including area, bar, column, line, scatter and pie charts. (Orders of 10 or more \$90.00)
- \*CONVERT** \$18.00  
**JAM Software**  
 A program that will allow you to convert metric and imperial measurement.
- DOLLARS AND SENSE** \$243.00  
**Imagineering**  
 This package is a useful accounting program that will store your financial records in an organised collection of account types like assets, liabilities, income, expenses and checking accounts. Available for the //c & enhanced //e.
- EXCEL** \$453.00  
**Microsoft**  
 Excel is an integrated package of a spreadsheet, database and graphics program. The spreadsheet is 16,384 rows by 256 columns, the user can create and use macros, charts can be interactively linked and are dynamic. The graphics program has 42 built-in chart formats.
- FILE** \$217.25  
**Microsoft**  
 An easy to use database program that allows the user to create a database by using rows and columns, like a spreadsheet. (Orders of 10 or more \$158.00)
- FILEVISION** \$149.00  
**Imagineering**  
 A pictorial database system, combines the full functions of a filing system with a drawing package. It can store any information in a combination of pictures, words and numbers.
- THE GRAPHIC GRADEBOOK** \$89.95  
**Edusoft**  
 The Graphic Gradebook allows the teacher to manage students grades, and averages. One nice feature is the ability to graph all the results.

- HELIX** \$635.00  
**Imagineering**  
 A powerful database package allowing for custom menus, password protection, data validation, subforms and extended data import and export capabilities.
- INTERLACE** \$249.00  
**InfoMagic**  
 A relational database that can manipulate numbers and text like a spreadsheet, offer simple standard report formats, merges a mail list with Microsoft Word. Demo disk \$15.
- JAZZ** \$895.00  
**Imagineering**  
 A fully integrated package combining database management, report generation, word processing, spreadsheets, graphics and communication facilities. A multi-functional and interactive package.
- MAC LIGHTNING** \$113.00  
**Imagineering**  
 MacLightning is an interactive spelling and grammar checker that loads as a Desk Accessory. Features include; 75 words per second checking, 80,000 word dictionary, 45,000 word thesaurus operates with MacWrite, Word, Excel, Omnis, Jazz and most other text programs. Available soon other libraries of words.
- MAC LION** \$565.00  
**Imagineering**  
 An applications generator for a relational database management system and format.
- MAC PROJECT** \$123.00  
**Apple**  
 A project and scheduling management package which is easy to use. Enter the tasks involved and the resources available and MacProject will calculate the critical path to completion and estimates of the time and money of any project.
- MAC SCHOOL** \$3145.00  
**Chancery Aust. Pty. Ltd.**  
 Mac School is an integrated school administration system for public or private schools of all types and sizes. It handles all your school's student record management needs and is designed to run on Macintosh Plus and 20Meg Hard Disk. Networking is supported over Appletalk. Mac School modules are available either individually or as a complete system. The packages include:-  
**CSL Library (\$1190)** allows a school to track up to 20,000 books and up to 4,000 borrowers.  
**CSL Scheduling (\$1450)** will schedule up to 4,000 students in up to 200 classes and up to four semesters at one time.  
**CSL Marks (\$475)** is a fast, easy gradebook program.  
**CSL Attendance (\$475)** provides both the reports that administrators require and efficiently highlights attendance trends.  
**CSL Report Card (\$650)** summarize the information from Marks and Attendance.

- MAC WRITE** \$123.00  
**Apple**  
 An easy -to-use word processor where what you see is what you get. Caters for very easy on screen formatting, editing, copying, pasting and moving of text which can easily be underlined, sub & super script, bold, italics, shadow or outline.
- MAGIC SLATE** \$99.00  
**InfoMagic**  
 A graphics and design package where the user can create pattern designs and watercolour style washers. Much more than MacPaint.
- MICRO PLANNER PLUS** \$795.00  
**Imagineering**  
 Project and resource management package. Including time analysis, multiple calendars, resource and progress management and Gannt charts.
- MICROSOFT WORKS** \$N.A.  
**Microsoft**  
 This integrated package contains a word processor, database, spreadsheet, graphics and communications program. Program to be available shortly..
- MORE** \$476.00  
**Imagineering**  
 This program is a thought organiser system which bears the same resemblance to its predecessor **Think Tank** as Neanderthal man does to us. It makes the preparation of bullet type reports and plans simple. For those involved in this type of work this program is well worth a close inspection.
- MULTIPLAN** \$217.25  
**Microsoft**  
 This very popular and powerful spreadsheet program is available to schools at a reduced price for educational use. The program has on screen help and menus. It is capable of having 64 columns by 256 rows, and can produce standard diff files. Multiplan has many built-in mathematical function that can not be found on most other spreadsheets like standard deviation. Variable column widths from 3 to 33 characters. One very useful feature is the ability to name cells, columns, row and blocks, this makes the generation of formulae much easier than typing in references.. (Orders of 10 or more \$158.00)
- OMNIS 3 PLUS** \$650.00  
**Blyth Inc.**  
 This very powerful yet easy to operate DataBase Management System which has had many templates developed for use in school administration and many other purposes. The program takes advantage of the Macintosh interface and is available in a multi-user mode if required. A large directory of already developed application templates is available from Blyth both locally and overseas developed templates. If you are looking for a powerful database to use with the Macintosh this program deserves serious consideration. Your local authorised Apple dealer will be able to give you a more comprehensive description and demonstration.

- PAGE MAKER** \$895.00  
**Software Corporation of Aust**  
 A complete desk top publisher, capable of reading and using within a document MacWrite, MacPaint, MacDraw, Microsoft Word files or any Scrapbook or Clipboard file. The program will allow the user to create up to 16 pages, which can be printed either as single sheets or back-to-back. This directory was compiled using this program.
- THE RIGHT WORD** \$130.00  
**Imagineering**  
 A spelling checker and thesaurus, works with MacWrite, Jazz and Word.
- READY SET GO** \$351.00  
**Imagineering**  
 An easy to use desktop publishing program. The user can design a page from blocks of text, graphics and rulers. Resizing and scaling of blocks are supported. Text and graphics from other programs is also supported.
- SPELLSWELL** \$99.00  
**InfoMagic**  
 This program will read any text document of any length, including MacWrite, Word and Jazz. It features include a 60,000 "English" word dictionary, checks for incorrect hyphenation, contractions, homophones and homonyms as well as the ability to add new words to the dictionary.
- \*SPORTING COMPETITION SOFTWARE**  
**Computing Window** \$130.00  
 This program is written just for schools and sporting clubs to plan fixtures and to produce the scores, times and results.
- STATVIEW** \$289.95  
**Edusoft**  
 An interactive visual data analysis package. Allows the user to explore and view data in many different ways to help analyse the results.
- STATWORKS** \$199.00  
**InfoMagic**  
 A statistical package including simple, multiple and polynomial regression and full descriptive statistics.
- SYBIZ ACCOUNTS PAYABLE** \$795.00  
**Edusoft**  
 Purchases may be allocated to inventory jobs or to the general ledger. Credit notes, payments and journal are handled as well as the printing of cheques.
- SYBIZ ACCOUNTS RECEIVABLE** \$795.00  
**Edusoft**  
 This program combines with the other SYBIZ packages. It allows the user to produce aged balances, histories, sales tax reports, and analysis information. Keep details on credit and debit accounts.
- SYBIZ DEBITORS INVOICING** \$395.00  
**Edusoft**  
 Caters for the entry of orders and back orders. Generates invoices, credit notes, job quotes, inventory items and various sundries.

- SYBIZ GENERAL LEDGER** \$795.00  
**Edusoft**  
 The main SYBIZ program. Produces and prints out trial balances, account histories, various financial statements and transactions. Receives data from the other modules automatically.
- SYBIZ JOB COSTING** \$795.00  
**Edusoft**  
 Stores vital information on contractual jobs, work in progress, cumulative costs and produces job histories.
- THINK TANK 512K** \$320.00  
**Imagineering**  
 Ideas and thought processor and organiser used to help plan and outline strategies and writing reports.
- TIMEBASE** \$190.00  
**Imagineering**  
 Time management package with daily, weekly and monthly scheduling, database file form and standard letter design, tracking, maintaining and planning facilities.
- WORD** \$200.75  
**Microsoft**  
 This very easy to use wordprocessor has all the features of the other wordprocessors plus the ability to print in columns. This program will read in MacWrite files and will allow the user to open up to four files at one time. (Orders of 10 or more \$146.00)

**3. GRAPHICS and DESIGN**

- CARD SHOPPE** **\$89.95**  
**Imagineering**  
 A set of graphics for greeting cards, which can be incorporated into a MacPaint document or any application which uses the clipboard.
- CLICK ART** **\$59.95**  
**Imagineering**  
 A set of detailed graphics of people, cars, animals and fancy borders. The graphics can be incorporated into a MacPaint document or any application which uses the clipboard.
- CLICK ART PUBLICATIONS** **\$54.95**  
**Imagineering**  
 A disk of graphics to help create newsletters and other publications. The graphics can be incorporated into a MacPaint document or any application which uses the clipboard.
- COMIC WORKS** **\$195.00**  
**Imagineering**  
 This program allows the user to create and print out their very own comics. The program can use MacPaint graphics as well as having its own library.
- DA VINCI SERIES** **\$69.50 each**  
**Imagineering**  
**BUILDINGS:** A disk of graphics to be used to produce detailed drawings of houses and buildings.  
**COMMERCIAL:** A disk of graphics to be used to produce commercial drawings.  
**INTERIORS:** A disk of graphics of different house and office interiors.  
**LANDSCAPE:** A disk of graphics of different landscape features.  
 All these graphics can be used with MacPaint or other programs that use object oriented graphics systems.
- EZ-DRAFT** **\$N.A.**  
**CRI Marketing**  
 This is a total CAD package that gives the user the freedom to create and printout very detailed plans and drawings.
- MAC CAD** **\$695.00**  
**Ikon Distributions**  
 A CAD package for the Mac. The system has its own library of elements and shapes that can be combined to create circuits of six layers.
- MAC DRAFT** **\$390.00**  
**InfoMagic**  
 A total drafting package used to create scaled drawings, schematic diagrams, organizational charts, and technical or general illustrations.
- MAC DRAW** **\$207.00**  
**Apple**  
 A drafting package that can create perfect flowcharts, diagrams, graphs, technical drawing and organisational charts. Will handle different size fonts sizes and styles of text. Supports scrapbook files from MacPaint and MacWrite.

- MAC GALLERY** **\$65.00**  
**International Solutions**  
 A collection of 187 useful MacPaint images. The graphics can be incorporated into a MacPaint document or any application which uses the clipboard.
- MACINTIZER** **\$958.00**  
**TCG**  
 This is a graphics digitizer board that connects to the Mac to allow the user to create professional style drawings and designs. Comes with software and instructions.
- MAC PAINT** **\$123.00**  
**Apple**  
 A very easy -to-use drawing tool. Can draw perfect structured shapes or freehand designs, mix text and graphics. Touching up a design is handled by fat-bits, allowing for very accurate and fine detail of drawing. Can be cut and pasted into MacDraw and MacWrite documents.
- MAC PALETTE** **\$119.00**  
**Imagineering**  
 Printer Utility for use with the LaserWriter and ImageWriter II printers, allowing the user to print colour documents from other Macintosh software.
- MAC PIC 1 & 2** **\$64.95 each**  
**Imagineering**  
 Both disks contain over 150 different graphics for use in MacPaint, MacWrite, MacDraw, Word, Ready-Set-Go and Page Maker.
- MAC PLOT** **\$279.00**  
**International Solutions**  
 Plots MacDraft and MacDraw files. Supports a variety of plotters including those made by Apple, Hewlett-Packard, Calcomp and Graphtec.
- MAC TABLET** **\$948.00**  
**Minicomp**  
 This is a graphics tablet for the Macintosh, it comes with software and instructions.
- MAC 3D** **\$329.00**  
**InfoMagic**  
 A true three dimensional graphics package. Features include custom fill patterns and rulers, precision tools and shapes from an advanced palette and 360 degree rotation using a circular scroll bar, view the design from any position.
- MAC THE KNIFE Vol 3** **\$78.00**  
**Imagineering**  
 A collection of different graphics, textures, fonts, maps signs, logos, etc. This volume includes Volume 1 and 2 of the original Mac the Knife disks.
- MAC VISION** **\$495.00**  
**Imagineering**  
 A digitizing scanner, used with a video camera. Digitized pictures can then be edited with MacPaint and used with any other application. A very useful program to help create very professional results.

- PAGE MAKER** \$895.00  
**Software Corporation of Aust**  
 A complete desk top publisher, capable of reading MacWrite, MacPaint, MacDraw and Microsoft Word files or any Scrapbook or Clipboard file. The program will allow the user to create up to 16
- PICTURE BASE** \$96.00  
**InfoMagic**  
 A simple picture database, allows the user to copy all or part of a MacPaint, MacDraw or MacDraft documents, into a library, then name and describe them.
- POSTER MAKER** \$59.00  
**InfoMagic**  
 A graphics scaling program, reduce or enlarge MacPaint or FullPaint designs through a range of 1 - 3,200%.
- READY SET GO V3.0** \$269.00  
**Imagineering**  
 An easy to use desktop publishing program, the user can design a page from blocks of text, graphics and rulers. Resizing and scaling of blocks are supported. Text and graphics from other programs are also supported.
- SLIDE SHOW MAGICIAN** \$119.00  
**InfoMagic**  
 Create a series of computerised slide shows, with sound and ten multiple choices for each frame.
- THUNDERSCAN** \$495.00  
**Imagineering**  
 A digitizing scanner which works in conjunction with the ImageWriter printers. The system allows the scanning into the Macintosh of any paper image, the quality of reproduction being dependant upon the the quality of the original. The system is quite unique in that no other hardware is required to scan the images and it harnesses the Apple ImageWriter as it 's vehicle of operation.
- VIDEO WORKS** \$185.00  
**Imagineering**  
 Animation package, used to create professional looking animations with sound.

## 4. LIBRARY SOFTWARE

- FILEVISION** \$149.00  
**Imagineering**  
 A pictorial database system, combines the full functions of a filing system with a drawing package. It can store any information in a combination of pictures, words and numbers.
- MAC BARCODE** \$730.00  
**International Solutions**  
 A barcode system for libraries and offices that creates, prints barcode sheets. Supports Scanstar Mac, Laser Gun and Slot Reader.
- MAC SCHOOL LIBRARY** \$1190.00  
**Chancery Aust.**  
 This program allows the user to keep track on up to 20,000 books and up to 4,000 borrowers. The program is part of a larger package called MacSchool, see Section M2 for further details.
- PROFESSIONAL BIBLIOGRAPHICS SYSTEM**  
**InfoMagic** \$580.00  
 This program compiles bibliographics and uses citations. Features include 20 different types of entries, support of extended character sets for foreign data entry and integrates with MAC word processors and graphics programs. Demo disk \$12.
- SCANSTAR MAC** \$1200.00  
**International Solutions**  
 A scanner to be used with Mac Barcode.

## 5. MUSIC and SOUND

- CONCERT WARE +** \$41.00  
**StatusGraph**  
 This program has different instruments with the ability to use any four of a set of eight at any point in a musical piece. Can read MusicWorks files.
- DELUX MUSIC CONSTRUCTION SET** \$76.00  
**StatusGraph**  
 This program has an interactive piano keyboard that has instant feedback to help make your perfect musical composition.
- MAC NIFTY AUDIO DIGITIZER** \$270.00  
**InfoMagic**  
 Create and capture your own sound. Package comes with cable and SoundCap software, a real time visual oscilloscope, acceptance of frequency responses in the range 22.2Khz to 5.5Khz. The program can play back through any stereo or tape recorder system. File can be used in either VideoWorks or Studio Session.
- MUSIC WORKS** \$104.00  
**Imagineering**  
 This program allows the user to create and play simple musical compositions. Enter your tune either by a grid or staff and select your instruments as you compose.
- PROFESSIONAL MUSIC COMPOSER** \$513.00  
**StatusGraph**  
 Allows the Mac to be used as a tool to help create, test, play compositions and print sheet music.
- SOUND DESIGNER** \$180.00  
**Ikon Distributions**  
 The software allows a wide range of detailed screen graphical displays of waveforms of various instruments, which can be edited. The waveforms can be analysed using the Fourier Analysis and the sound stored on disk.
- SOUND LAB** Public Domain  
**Apple**  
 This program can display four sound waveforms in separate windows while simultaneously playing them through the speaker.
- THE STUDIO SESSION** \$149.00  
**InfoMagic**  
 This program is a six voice digital sound synthesiser. Comes with over 60 playback instruments. Create your own sounds and music with MacNifty Audio Digitizer. Also accepts Midi interface Keyboards. Demo disk \$9
- TOTAL MUSIC** \$899.00  
**Ikon Distributions**  
 Total Music combines the control of Midi with the graphics, power and user interface of the Macintosh. The package allows the Mac to become a multi-track recording studio, and provides precise control over each note. Tunes can comprise of 50,000 notes and music can be recorded, overdubbed, orchestrated, edited, conducted and printed out. Total Music can record 99 separate tracks each of which can control 16 instruments. Requires Midi compatible devices.

**6. PROGRAMMING**

This is a selection of languages available for the Macintosh. Interested persons should contact the Apple Programmer's and Developer's Association (see Teaching Basic) for further details.

- CHIPWITS** \$62.00  
**StatusGraph**  
 This program is the combination of a game and a programming language. Train your robot to detect, eat, zap or ignore different objects on the floor of the maze. Programs can be changed, has several level and subprograms can be written with the Icon-based Programming Language (IBOL).
- EXPER LISP** \$689.00  
**Edusoft**  
 A modern high performance, compiled version of Lisp containing features that serious Lisp programmers require.
- EXPER LOGO** \$320.00  
**International Solutions**  
 A powerful adaptation of the Logo computer language, includes Bunny Graphics.
- LIGHT SPEED C** \$299.00  
**InfoMagic**  
 A high speed and performance C compiler.
- MAC ASM** \$188.00  
**StatusGraph**  
 This program allows the user to write programs in assembly language. Programmers can assemble, edit and test software and an integrated compiler lets independent applications run from their own icons.
- MAC PROLOG** \$795.00  
**Edsoft**  
 This program implements a full compiler with the capacity to use the Macintosh window and mouse philosophy.
- MACINTOSH PASCAL** \$126.00  
**Apple**  
 This programming language is highly interactive. Allows you to debug and compile programs at great speed and convenience.
- MICROSOFT BASIC** \$173.25  
**Microsoft**  
 This is an interpreter supports the Toolbox and the whole Mac interface can be implemented in your programs. Comes with several libraries of programs.
- MICROSOFT LOGO** \$145.00  
**Microsoft**  
 This version of LCSI logo uses three windows and allows the user to take full advantage of the Mac interface. The turtle is very fast and precise in its movements. An upgrade is available for registered users to accomodate the Macintosh Plus from Microsoft Australia. Future purchasers should contact LCSI direct for this program.

**7. SUBJECT BASED PROGRAMS**

- DIET MAC** \$148.00  
**StatusGraph**  
 A database containing nutritional information on over 800 different foods.
- MAC CHEMISTRY** \$212.00  
**StatusGraph**  
 A two disk set consisting of a titration program, a periodic table, MacNest, and MacPaint files to create different experiments in the laboratory.
- MAC EDGE** \$73.00  
**StatusGraph**  
 This two volume program set. Each contain 8 reading or math drills for basic skills.
- MAC TYPE** \$58.00  
**StatusGraph**  
 This program offers a structured typing instruction course. Can be used to learn either the standard or Dvorak keyboards.
- MASTER TYPE** \$64.00  
**Edusoft**  
 A typing tutor with a difference, learn to touch type with an arcade style game.
- NUTRI-CALC** \$138.00  
**StatusGraph**  
 Use the database to plan a healthy, well-balanced diet and print the shopping list and menus for your records.
- POWER MATH** \$122.00  
**StatusGraph**  
 This program involves solving equations from simple to complex. Solutions are shown in a step-by-step approach.
- PERPLEX** \$63.00  
**StatusGraph**  
 A board game like scrabble, players can vary the rules and the board to suit their tastes and skill levels. The program will allow up to four players to play. Contains a 90,000 word dictionary.
- SCORE IMPROVEMENT SYSTEM** \$136.00  
**StatusGraph**  
 Improve your reading, comprehension, maths and quantitative comparisons. On-line tutor to help with incorrect answers.
- SMOOTH TALKER** \$250.00  
**International Solutions**  
 Text to speech synthesis package available in either male or female voices.
- SPEED READER II** \$84.00  
**Dataflow**  
 This program help to build up the speed and efficiency of any reader with challenging passages and tests to complete.

**TELL STAR I and II** \$65.00, \$99.00  
**StatusGraph**

This two part astronomy program has an extensive database on all the known celestial objects for quick plotting and printing of the night skies at different times. Volume II is for the Southern Hemisphere.

**WORD CHALLENGE** \$55.00  
**StatusGraph**

A game of Boggle with 26 skill levels and an extensive dictionary.

**WORD PLAY** \$62.00  
**StatusGraph**

This program is a word game with over 50 crossword puzzles to solve. A work mode allows for new puzzles to be created.

**8. UTILITY PROGRAMS****ACCESSORY PACK 1** \$69.95  
**Imagineering**

A utility package of programs which include a paint cutter, rulers for MacPaint, screen savers, desk accessory, font mover, quick eject and a new font.

**HEAP SHOW** \$129.00  
**InfoMagic**

Heapshow is a desk accessory which allows the user to view and manipulate the inner working of practically any program as it runs.

**IN BOX** \$NA.

This program is the closest yet to a network mail system. It runs in the background of well behaved Macintosh programs and allows the sending and receiving of electronic mail whilst proceeding with another task.

**MAC SERVE** \$310.00  
**Apple Computer Australia**

A file server allowing a number of Macintosh computers to access a single hard disk for program and data storage. The program is well worth considering for those schools considering a distributed administration system based around the Macintosh. Installation is clearly explained and it can be competently accessed by users with a minimum of computer expertise.

**MAIL CENTRE** for 2 Macs \$353.00  
**StatusGraph** for 6 Macs \$589.00

Mail Centre is a suite of AppleTalk communications network software that allow two to six Mac's connected by a network to send and receive mail to each other. The program will allow the transfer of documents as well as graphics.

**MAC TO PC AND/OR MAINFRAME**

There are so many ways to achieve these linkages that a description of them would need a book of its own. Essentially paths are available to connect to almost all known configurations of mini and mainframe computer. Particular cases would need consultation with your local dealer as to the best and least expensive method of achieving your purpose.

**MAC TERMINAL** \$109.00  
**Apple**

A communications package that will allow access with other computers and electronic database and bulletin boards.

**MAC TRANSFER** \$69.95  
**Imagineering**

A file transfer program for use between Apple II and Macintosh computers. Both ProDOS and DOS 3.3 files may be exchanged via an ImageWriter cable connecting the two systems.

**MAC VIDEO TEXT** \$99.00  
**NetComm**

This program provides communications with Prestel Videotex services. Requires Apple modem.

**PASSPORT** \$NA  
**Apple Computer**

This program allows the transfer of files from Apple II computers to Macintosh without any hardware connection being necessary. The data must be on an 800K disk for the program to access it. The program is designed to allow a wide range of Apple II data formats to be transferred to the Macintosh environment. Formats not available at initial release can be later added if sufficient demand exists. The program interface is similar to the Font/DA mover and is due for release towards the end of 1986.

**RED RYDER** Shareware  
**Scott Watson**

This program is a communications package that you can acquire for free. if you like it and use it you should send in the required fee with any suggestions for improvement. Scott then sends you the latest version and if enough people ask for the improvements you want incorporates them. The Shareware system has worked well with this program and as this is a fairly full functioned terminal package it may be worth a look.

**SIDEKICK** \$99.00  
**Imagineering**

Allows a user to open windows while running other programs. Contains 9 desktop accessories.

**SILICON PRESS** \$149.00  
**Imagineering**

Printing utility program used to produce labels of any size contains both text and graphics. Supports both Imagewriter and Laserwriter printers and colour.

**QUICK AND DIRTY UTILITIES, Vol 1 & 2**  
**InfoMagic** \$89.00 each  
These two volumes are full of handy and useful utility programs.**TEMPO** \$149.00  
**InfoMagic**  
Macro generator, works with most Mac software.**TEX SYS** \$109.00  
**InfoMagic**

TexSys show when and why updates of your Mac disk were made, it will keep a systematic record of your backup library.

**UNDERWARE** \$40.00  
**International Solutions**

Package that creates iron-on transfers of any Macintosh image using an ImageWriter printer. Yields 30 to 50 shirts each.



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