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ABSTRACT

Intended to provide guidance in the selection of the best computer software available to support instruction and to make optimal use of schools' financial resources, this publication provides a listing of computer software programs that have been evaluated according to their currency, relevance, and value to Hawaii's educational programs. The introduction explains the entry format and provides keys to the codes used to describe the entries, which are listed alphabetically by title. A listing of individual program titles under the appropriate subject headings provides subject access to the alphabetical listing. Information provided for each software program in the main entry includes the title, its subject (or application) code, grade level code, the publisher, copyright date, price, hardware required, rating, a list of strengths, a list of weaknesses, comments, published reviews, suggested call number, and suggested subject heading. The guidelines used by the Computer Review Center and Clearinghouse in the Hawaii Department of Education and samples of their evaluation and request forms are included, as well as order forms for MECC (Minnesota Educational Computing Consortium) software programs and a directory of producers. (DJR)

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Computer Software Reviews

ED273252

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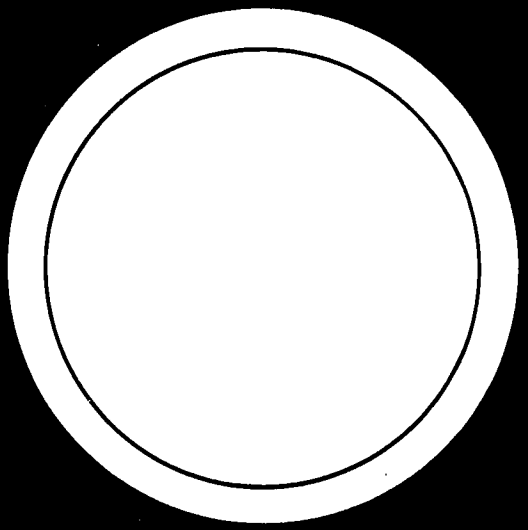

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Department of Education ☐ State of Hawaii
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TABLE OF CONTENTS

Table of Contents. i

Acknowledgment ii

Foreword iii

Introduction iv

Subject Heading Listing. 1

Alphabetical Title Listing 3

Computer Review Center Guidelines. 33

Forms. 37

Producers' List. 61

ACKNOWLEDGMENT

The Department of Education gratefully acknowledges the invaluable contributions to this publication by the Multimedia Services Branch Preview Evaluation Committee; specialists who assisted the evaluation committee; librarians who served on the State Materials Evaluation Committee; and teachers, librarians, and administrators in the schools who previewed nonbook materials for this document. Their cooperation and assistance were essential in evaluating new material to identify quality software to be listed in this publication.

FOREWORD

As educators seek to meet the diverse instructional needs and the varied learning styles of the students of Hawaii, they have a wide range of resources to use in presenting new concepts and skills. The current expansion of learning resources to include microcomputer software presents both an opportunity and a challenge to select the best quality of materials to facilitate instruction for today's student.

In recognition of the need to select the best computer software available to support instruction and to make optimum use of schools' financial resources, Computer Software Reviews is being provided to all schools. It includes a list of computer software materials that have been evaluated according to their currency, relevance, and value to Hawaii's educational programs.

Educators are encouraged to draw upon the resources annotated in this list as they continue to develop and maintain effective instructional delivery. It is hoped that the materials represented in this document will be a valuable selection tool in an on-going effort to provide high quality resources to support instruction.

Francis M. Hatanaka, Superintendent

INTRODUCTION

SELECTION

The entries in this listing are items that have been rated as good or excellent by teachers, librarians, and educational specialists. This publication has been developed as a tool for selecting quality computer software.

ENTRY FORMAT

Each entry follows the format of the state-approved evaluation form (see page 39.) Elements of each

title	Library/media skills
subject	LSS
level	U*I
publisher	Educational Activities
copyright	1983
price	59.00
hardware	Apple IIe, TRS-80, Model IV
rating	Good
strengths	Provides an automatic tutorial for users having difficulty. Can store and print scores for 25 students.
weaknesses	Limitation to 25 students is not realistic. Does not suggest how to use materials shown in higher levels.
comments	Gives a combination testing-tutorial program for library locational skills. The explanation in the tutorial program, which is generated through wrong answers on the test, is quite detailed. May be most useful as a post-test and remediation tool.
reviews	Booklist 9/1/84
call no.	028.7
LC sub	1. School children. 2. Information services - User education.

SUBJECT CODE

General subject areas have been assigned according to the following code:

Code	Subject	Code	Subject
ADM	ADMINISTRATIVE	IAR	INDUSTRIAL ARTS
ALG	ALGEBRA	LAN	LANGUAGE ARTS
ARI	ARITHMETIC	LOG	LOGIC
ART	ART EDUCATION	LSK	LIVING SKILLS
AUP	AUTHORING PROGRAM	LSS	LIBRARY/STUDY SKILLS
BED	BUSINESS EDUCATION	MAG	MAGAZINE
CLA	COMPUTER LANGUAGES	MTH	MATHEMATICS
CLI	COMPUTER LITERACY	MUS	MUSIC
DBM	DATABASE MANAGEMENT	OPS	OPERATING SYSTEM
DRE	DRIVER EDUCATION	PHY	PHYSICAL EDUCATION
ECN	ECONOMICS	PSV	PROBLEM SOLVING
ESL	ENGLISH AS A SECOND LANGUAGE	RED	READING
FLG	FOREIGN LANGUAGE	SCI	SCIENCE
GAM	GAME	SED	SPECIAL EDUCATION
GEG	GEOGRAPHY	SOC	SOCIAL STUDIES
GEO	GEOMETRY	SST	SPREADSHEET
GRM	GRAMMAR	SPL	SPELLING
GUI	GUIDANCE	VCY	VOCABULARY
HEC	HOME ECONOMICS	VOC	VOCATIONAL
HIS	HISTORY	WPR	WORD PROCESSING
HLT	HEALTH	WRT	WRITING

GRADE LEVEL CODE

The target audience for the software has been identified according to the following code:

Code	Level
P	PRIMARY (K-3)
U	UPPER ELEMENTARY (4-6)
E	ELEMENTARY (K-6)
J	JUNIOR HIGH (7-9)
I	INTERMEDIATE (7-8)
H	HIGH SCHOOL (9-12)
S	SECONDARY (7-12)
C	COLLEGE/ADULT
V	VARIOUS (STUDENT/ADULT)

SUBJECT HEADINGS AND SUGGESTED CALL NUMBERS

Library of Congress subject headings and Dewey classification numbers have been assigned to a few entries. These subject headings and numbers are suggested only and are not intended to be authoritative.

LISTINGS

The major listings included in this publication are:

1. "Listing of Titles by Subject Headings," a listing of titles and grade levels by general subject areas.

2. "Annotated Title Listing," a listing of good or excellent computer software.

3. "Producers' List," a listing of producers represented in the publication, with information about available back-up and replacement policies.

****PRICE INFORMATION

Because price changes occur frequently, users are urged to verify prices by consulting the latest edition of the publishers' catalogs, or by checking with local software vendors when ordering.

****HARDWARE REQUIREMENTS

All the formats available for a title at the time of evaluation have been included. Since new formats are being added continuously, users may want to check current catalogs for the most recent information.

SUBJECT HEADING LISTING

ADMINISTRATIVE

Audiovisual equipment scheduling program	C
Audiovisual materials inventory program	C
Bookworm I	C
The EA mathematics worksheet generator	C
The library monitor	C
Library processes system	C
The overnight writer	C
pfs: File	C
The print shop	V
Quick card	C
Sports stats	C
Tennis draw	V
Unistar II+	C

ARITHMETIC

Number stumper	P

AUTHORING PROGRAMS

The arcade machine	I*H

BUSINESS EDUCATION

Mastertype	V
MECC keyboarding primer	U*I
Microtype	U*S

COMPUTER LITERACY

Applying the Apple II:how-to for instructors	C
Blazing the basic trail	U*J
Book worm	U
Classification	J
Delta drawing	U*J*H
Exploring sorting routines	H*C
Introduction to microcomputers	U
Introduction to personal computing	C*A
Learning tc write with Ed Emberly	P
Mastertype	V
MECC keyboarding master	U*S
MECC keyboarding primer	U*I
MECC trivia machine	S
Microtype	U*S
Microzine	U*I
Muppet learning keys	P
New step by step	H*C
School tool	U*E
Stickybear ABC	P

DATABASE MANAGEMENT

Bookends	V
Micro-skills I	H*C
Micro-skills II	C

DRIVER EDUCATION

Keys to responsible driving	V

ECONOMICS

Three mile island	S
South Dakota: an economics & mathematics simulation	H

GAME

The arcade machine	I*H
Word attack	U*I*H

GUIDANCE

S.N.A.P.	H
Pets, ltd.	U

LANGUAGE ARTS

About us	P
Book worm	U
Bridge to Terabithia	U*J
Current biography	I*H
Learning to write with Ed Emberly	P
Master spell	C

Missing links: young people's literature	U*I*H
Mother Goose for young thinkers	U*J
Muppet learning keys	P
The red badge of courage	S
SAT English I	H
Speed reader II	V
Stickybear ABC	P
Stickybear opposites	P
Stickybear shapes	P
Story maker	U
Understanding questions	C
Writing an opinion paper	H
Word attack	U*I*H
Word wizards	E

LIBRARY/STUDY SKILLS

Answering questions library style	I*H
Current biography	I*H
How can I find it if I don't know what I'm looking for?	U*S
Library/media skills	U*I
Max Dublin's treasure	U
MECC trivia machine	S
Media skills	U*I
Organization of resources	U

MAGAZINE

Microzine	U*I

MATHEMATICS

Addition logician	U
The EA mathematics worksheet generator	C
Elementary, vol. 1: mathematics	U
Graphmaster	U
Math man	P
Measuring with a ruler: perimeter, circumference & area	E
Muppet learning keys	P
Problem solving in algebra	S
Ratio and proportion	U*S
Read and solve math problems #2: two-step problems	U*S
Rocky's boots	U*J
Salina math games	E*I*H
South Dakota: an economics & mathematics simulation	H
Subtraction puzzles	P
Tables and rounding	U
Teasers by Tobbs	U*I
Whole numbers	U*S

PHYSICAL EDUCATION

Sport stats	C
Tennis draw	V

PROBLEM SOLVING

Addition logician	U
Code quest	U
Elementary, vol. 6: social studies	U
The factory: explorations in problem solving	V
Gears	V
Gertrude's puzzles	U*J
Gertrude's secrets	U*J
Highrise	V
Jigsaw	U*J
Memory match	P
Moptown hotel	E
Moptown parade	E
Mother Goose for young thinkers	U*J
Oh, deer!	U*S
The pond: explorations in problem solving	U*I
Puzzle tanks	V
The puzzler	U
Rocky's boots	U*J
Salina math games	E*I*H
Snooper troops	U*S
Square pairs	U
Teasers by Tobbs	U*I
Thinking and learning	H
Three mile island	S

READING

The puzzler	U
Readability formulas	C
Speed reader II	V

SCIENCE

Classification	J
Ducks	J
Genetics	U*I
Oh, deer!	U*S
Pets, ltd.	U
Rocky's boots	U*J
Three mile island	S
Water pollution	S

SPECIAL EDUCATION

Learning to write with Ed Emberly	P

SOCIAL STUDIES

Current biography	I*H
Elementary, vol. 6: social studies	U
Graphmaster	U
Pets, ltd.	U
Social studies, vol. 2: simulation and drills	H
South Dakota: an economics & mathematics simulation	H
Writing an opinion paper	H

VOCATIONAL

Micro-skills I	H*C
Micro-skills II	C

WORD PROCESSING

Bank Street writer	V
MECC write start	U*S
MECC writer	U*S

ALPHABETICAL TITLE LISTING

A

About us
LAN
P
Scott, Foresman
1983
69.95
Apple IIe
Good
Gives a percentage score after each series. Provides a brief tutoring review if two out of three tries are inaccurate. Good corollary materials are included. One or more students may use the program. Sound and color are utilized.
Feedback becomes repetitious, with no variety.
Develops language by requiring users to match pictures and words on the screen. Several games are suggested with and without the computer.

Addition logician
MTH*PSV
U
MECC
1984
43.00
Apple IIe
Good
Interspersing games increases motivation. Students must complete problems correctly to challenge the computer in a game. Good use of graphics and sound in the games. The games are instructional and fun.
Sums must be entered from right to left.
Presents addition problems in a mastery learning setting. Students input correct sums; after each set, they can challenge the computer in a game of logic, memory, etc. Designed to be used for drill and practice.

Answering questions library style
LSS
I*H
Learnco
1983
39.95
Apple IIe
Good
Excellent use of computer capabilities. Fifty different research challenges can be linked to the current interest in Trivial Pursuit type games. Unique, practical approach to library skills, coming very close to actual practice. Encourages problem-solving skills. Holistic approach to finding information.
Most displays are black and white. Cues given after wrong answers are not always helpful or given promptly.
Takes the user through a search for information from selecting a subject heading to finding the answer on a specific page.

Applying the Apple II: how-to for instructors
CLI
C
Sunburst
1982
30.00
Apple IIe
Good
Useful to in-service educators about computer capabilities. The set may also serve to increase public awareness and support, e.g., PTA.

Shows the capabilities of instructional computer software by giving examples. Drill and practice, tutorial, simulation, authoring, and gaming programs are demonstrated through programs.
Booklist 1/1/83

The arcade machine
AUP*GAM
I*H
Broderbund
1982
59.95
Apple IIe; joystick
Good
Promotes creativity and problem-solving.
Time consuming. Supplementary in nature.
Enables users to design their own arcade games.
Software Reviews vol. 2 no. 3
688.7

Audiovisual equipment scheduling program.
ADM
C
Educational Activities
1983
89.00
Apple IIe
Good
A wide variety of equipment may be entered: subsequent entry of data for another purpose, e.g., booking, enters part of the data automatically. The program is quite user friendly, provides screen prompts and warnings as needed and includes well-designed documentation.
An A-V center would need to serve a very large population and store equipment in a single location to justify its use which would be practical only if the computer and program were easily available throughout the day.
Provides for scheduling of A-V equipment.

Audiovisual materials inventory program
ADM
C
Educational Activities
1983
89.00
Apple IIe
Good
Good screen prompts warn user of duplicate accession number or wrong data disk. Entry of data is easy although information may be truncated without screen warning. Sorting was fast for the first items entered (but numerous records were not tested).
The program tested failed to list all data by title, but the documentation provides a number to call for assistance.
Allows input of data with subject, format, producer, acquisition date, title, call number, and notes; sorting by the first four items.

B

Bank street writer
WPR
V
Scholastic
1982
95.00
Apple IIe
Good
Tutorial is excellent. Gives constant reinforcement and prompts usage of correct keys and procedures. Would probably be easy for older elementary students on up to comprehend and utilize.

Provides three disks, one for use, one for back-up, one for sending for repair if needed. Program without tutorial and teachers guide is available from EISI.
Media Review vol. 6.

Blazing the basic trail
CLI
U*J
Sunburst
1984
55.00
Apple IIe
Good
All games use the same basic approach but allow flexibility in number of users, e.g.,solitaire, 2-person, pe'son as computer. Intuitive grasp of if-then is inherent in the games. Graphics are good. Different levels of difficulty may be selected.
On-screen instructions rely too heavily on text rather than a graphic tutorial.
Presents if-then application in a gaming format. If-then, GOTO, and RUN statements are used Best used in exploratory computer literacy rather than programming courses.
Booklist 4/1/85

Book worm
CLI*LAN
U
MECC
1983
29.00
Apple IIe
Good
Useful application of library skills and language art skills. Easy introduction to the concept of data base management for young students. Large print is easy to read. Passwords prevent other students from tampering with records. A simple but hidden command enables the teacher to enter a teacher option menu; this allows free deletions.
Accuracy in keyboarding is important. Lacks a list of key words needed, eg., subject.
Teaches students how a data base functions by giving them instructions on setting up a file of books read. Student worksheets permit planning the data records.

Bookends
DBM
V
Sensible Software
1983
124.95
Apple IIe
Good
Bookends' major attraction is that the database can be searched for authors, keywords (or descriptors - as many as assigned), title content, or any combination of words throughout the reference. The results can be displayed on the screen, sent to the printer for hard copy or saved as a standard text file that can then be used by a word processing program. Sorting speed is excellent, e.g., sorting seven hundred entries in 45 seconds. Files may be tied from one disk to another. Output features allow flexibility of bibliography format.
Limited to magazine articles and books, although it could be used for records, software, etc., by ignoring some of the fields.
Presents a database for bibliographic work. Bookends is a program for saving and retrieving journal and magazine articles needed for future reference. It is similar to a combination of word processing/database program in that it possesses functions of both. Although its intended audience is academically oriented researchers, the program can be modified to be used to keep track of small software collections.
Booklist 9/1/84

Bookworm I
ADM
C
Hammett
1982
99.00
Apple IIe, TRS-80, Model IV
Good
Versatile program easily used. Carries out single purpose well. Field for call number is small. Does not allow for editing of a record after entry. No separate field for copy number. Sorting is slow.
Handles overdues for small libraries. Bookworm II is similar but has increased storage capacity.
Booklist 11/1/83

Bridge to Terabithia
LAN
U*J
Sunburst
1977
25.00
Apple II
Good
The program gives a variety of questions in recall, sequencing, and other areas. The student is given several chances to input then correct answer. The program achieves its purpose of providing a cognitive test of the book.
There is no record-keeping capacity to the program to enable the teacher to check student progress.
The set is not intended to motivate students to read the book after use of the program but in preparation for it. Other Newbery Award books are featured in other sets within the series. The micro-computer is used to test a student's knowledge of an award-winning book.

C

Classification
SCI*CLI
J
MECC
1983
36.00
Apple IIe
Good
Simple database program that is easy to use. Demonstrates various database options.
Sorting is slow. Instructions for building a database are not clearly defined. No warning is given that a write-protect tab will disable database creation. Sorting is pre-determined by each field, e.g., names A-Z rather than A-Z, Z-A.
Teaches students how to classify animals using a computer database. Science and computer literacy concepts are taught in a single program.

D

Delta drawing
CLI
U*J*H
Spinnaker
1982
49.95
Apple IIe, TRS-80, Model IV, IBM PC, Commodore 64
Good
Easier than Logo turtle graphics.
Younger students may need instructor help.
Teaches problem solving through drawing graphics by computer. The program provides an introduction to programming graphics.
Booklist 9/1/83

Ducks
SCI
J
MECC
1983
44.00
Apple IIe
Good
Information is accurate and logical. One program can be adapted to reflect local laws and wildlife.
Information is not relevant to Hawaii. Educational value is not as great as in other informational programs.
Teaches duck identification and hunting regulations. A simple shooting game is included for motivation.

Elementary, vol. 1: mathematics
MTH
U
MECC
1983
45.00
Apple IIe
Good
Gives a variety of topics and levels of difficulty. Use of timed exercises adds excitement to the program.
Graphics are ordinary. User cannot control difficulty or time limit on all programs. The titles of individual games do not give clues to the object of the game.
Provides practice in a number of math functions.

E

The EA mathematics worksheet generator
MTH*ADM
C
Educational Activities
1984
59.00
Apple IIe
Good
Provides a choice of up to nineteen levels for each of the four operations, printing 1-3 pages at a time. Will print an answer key if desired. Random selection provides an unlimited variety of worksheets.
Does not save worksheets on disk. Some problems may be repeated on a worksheet. Operations cannot be combined on a single worksheet. The symbol for division is a combined) and underline that may be confusing to students. Program bug appeared during one trial.
Provides a means for math teachers to generate worksheets easily and quickly.
Booklist 8/85

Elementary, vol. 6: social studies
SOC*PSV
U
MECC
1983
49.00
Apple IIe
Good
Motivational simulation game. Involves a variety of problem-solving choices. Good student involvement. Well-designed documentation with activity sheets. Integrates some math and economic skills.
Graphics are limited and slow. May require skill to integrate into historical events.
Presents several American trails and permits the user to pit problem-solving skills against hardships. Decisions on various provisions must be made prior to the voyage, as well as how to use the provisions.

Exploring sorting routines
CLI
H*C
MECC
1984
36.00
Apple IIe
Good
Screen displays are easy to read. Users have the option of slowing down the process to see it in action. Useful addition to computer programming courses. Some screen displays are extra-large to allow the program's use for whole-class instruction.
Lacks real use of color, sound, graphics.
Several different sorting routines are explained through text and demonstrated with a set of random numbers or the user's choice of numbers. Other parts of the program include the program listing for each routine, and a step-by-step analysis of the sorting.

F

The factory: explorations in problem solving
PSV
V
Sunburst
1983
55.00
Atari 800, Apple IIe, TRS-80, IBM PC, Commodore 64
Good
Instructional, challenging, and interesting. Encourages inductive learning. Motivational with good use of graphics, color, and sound.
Documentation doesn't explore instructional value sufficiently.
Enables student to hone spatial relationship skills through a problem solving mode. Test a Machine shows how the simple factory works, Build a Factory enables the user to set up a series of changes, and Make a Product tests the user's ability to replicate a product.

793.7

G

Gears
PSV
V
Sunburst
1985
55.00
Apple IIe, IBM PC, TRS-80
Good
Interesting, motivational, challenging. Thorough and well-designed teacher-oriented documentation. Packaging is sturdy and can be easily stored.
Does not offer information after incorrect entries. Weak tutorial on screen, buried in center of documentation.
Users are challenged to design a configuration of gears that will result in a pre-determined ratio. Three different puzzles in varying levels of difficulty are offered.
Media Review vol. 8

Genetics
SCI
U*I
MECC
1985
49.00
Apple IIe, color monitor required
Good
Clear, simple directions and information. Wrong answers prompt a tutorial review. Motivational graphics. Blood typing is presented in a visual representation of a serum test.
Becomes somewhat tedious in designing "parents."
Teaches dominant, semi-recessive, and recessive genes through designing a male and female insect and predicting its traits. A second part teaches blood types, determined by genes and tested with anti-serums.

Gertrude's puzzles
PSV
U*J
The Learning Company
1982
44.95
Apple IIe; TRS-80, Model IV
Good
Teaches logic in addition.
Requires higher reading level than concepts addressed. Not precise in some functions, e.g., picking up objects by mistake. A joystick would eliminate the need for directional keys, making movement easier.
If an older student can teach the user the simpler skills needed to play the game, the program is effective for the target audience. The skills can also be taught in large group instruction.
Booklist 1/1/83 ; The Computing Teacher 9/83

Gertrude's secrets
PSV
U*J
Learning Co.
1982
75.00
Apple IIe
Good
Teaches logic in addition.
Requires higher reading level than the concepts addressed. Not precise in some functions, e.g., picking up many objects by mistake. A joystick would eliminate the need for directional keys, making movement easier.
If an older student can teach the user the simpler skills needed to play the game, the program is effective for the target audience. The skills can also be taught in a large group setting.
Booklist 1/1/83

Graphmaster
SOC*MTH
U
Grolier
1984
49.95 (Contact representative for discount.)
Apple IIe
Good
Sequential presentation of types of graphs. Graphics are good. Makes use of student input.
Omits line graphs. Teacher's guide lacks worksheets. Student is not required to use computation to design a graph independently.
Teaches the construction of several kinds of graphs. After the tutorial, the user can design a graph by simple input. Three kinds of arrays are illustrated, using the basic information.

H

Highrise
PSV
V
Micro Lab
1983
30.00
Apple IIe
Good
Spatial relationships are developed in a highly motivational game. Size, shape, left/right and logic are combined in building a structure.
Little information is provided at the beginning, requiring time to determine how the game works.
Challenges the user to build a tower by using variously shaped blocks, some that reverse in stacking. Different levels progress the student through more complex relationships.
Booklist 9/1/84
794
1.Video games

How can I find it if I don't know what I'm looking for?
LSS
U*S
Sunburst
1985
55.00
Apple IIe
Good
Editing capability. Can enter reference books from own library. Shows specific books when request is made.
No graphics. Screens limited to 8 lines.
Useful for students learning about reference independently. Good for introduction to reference tools. Self-paced.

I

Introduction to microcomputers
CLI
U
EduSystems
1982
47.49
Apple IIe
Good
Game format. Cheerful and appealing. Good follow-up activities with worksheet provided.

Gives hands-on experience in learning how to use a specific model of microcomputer.
Booklist 1/1/85

Introduction to personal computing
CLI
C*A
Comprehensive Software
1984
59.95
IBM PC, requires use of IBM DOS 2.0
Excellent
Student controlled pacing of tutorial, including the choice of making an answer. Information could be easily generalized. Clear directions.
Doesn't inform user of key to press to move forward without a response. Took nearly one hour.
Template helpful for beginner. Timely examples. Good general introduction to all aspects of a computer and its use. First in a series of introductory software.

J

Jigsaw
PSV
U*J
Island Software
1981
25.00
Apple IIe
Good
Interesting, motivational as a jigsaw puzzle, but with the interactive capabilities of a computer. Good variety of topics. Information on using the program is not as clear as it should be. Users are able to study a picture as long as desired and then try to place the parts of the picture on a grid. Erroneously placed segments reappear to give repeated opportunities for correct placement. At completion, the user is informed of the number of moves needed.

K

Keys to responsible driving
DRE
V
CBS Software
1984
79.95
Apple IIe
Good
Student can set his own pace. Topics provide opportunity for class discussion. Answers recorded only after return key hit, so student may change a response. Graphics excellent.
Mini-management system is undocumented. Some signs and tips are not applicable to Hawaii driving. For some questions, it is not possible to review responses.
The program on two diskettes thoroughly covers driving skills, signs, regulations, and techniques with an emphasis on reponsible and safe driving. A pretest helps to pinpoint areas a student can work on. Menu includes nine chapters and a posttest. These diskettes are complete in themselves. A leaflet which includes chapters on safe driving, accidents, car condition, sample questions from written tests, and definitions accompanies the diskettes.
Booklist 5/1

L

Learning to write with Ed Emberly
CLI*LAN*SED
p
Right-On Programs
1985
35.00
Apple IIe, color monitor
Good
Illustrations, animation and musical choices are excellent, perhaps even to the point of distracting from the objective. The program may help some students with computer literacy by simple control of the computer and learning to locate letters on the keyboard. A child controls the rate the screen displays the letters by pressing the correct letter on the keyboard.
Diagonals necessary in letters like "M" or "Q" are not drawn smoothly on a computer screen. Can't return to menu if error made in letter choice. Lower case letter teaching program does not match with standard keyboard. A bit slow. Sometimes if child hits return instead of correct letter to activate first stroke of letter, blinking letter disappears altogether.
A group could use accompanying practice sheets to write letters as the computer displays correct strokes. This 4-disk program has a companion to teach how to print lower case letters. Touch sensitive screen technology may make this relatively non-interactive program obsolete.

The library monitor
ADM
C
Colorado Computer West
1984
300.00
Apple IIe
Good
Statistical reports can be generated automatically for libraries using the circulation component. The program may also be used for overdues only; it is flexible and easy to use. Unlike other overdue programs, the user is not frustrated by the inability to change entries or options easily, since each screen-end response provides a confirm/stop choice. In general, the program is powerful, user friendly, and useful because of its varied choice of retrieval points. The set is more expensive than other overdue programs, but is also much more useful.
The documentation is less effective, consisting of computer-printed sheets with poor displays; an index is not provided.
Provides a menu-driven program to manage library overdues. The program requires a separate loading of DOS and a dual disk drive, but offers a storage capacity of 1500 entries in return. It is suggested, in the documentation, for libraries with an average daily circulation of 150 with an estimated input time of 15 minutes per 50 entries. The information is presented in a clear and logical manner.
Booklist 7/84
025.6

Library processes system
ADM
C
Educomp
1983
200.00
TRS-80, Model IV
Gopd
Self explanatory.
Uses the word "extent" instead of page number. Does not allow notations.
Print catalog and booklists in a simplified catalog card format.

M

Master spell
LAN
C
MECC
1984
43.00
Apple IIe; dual disk drive preferred
Good
The program provides for flexibility of options, e.g., with or without sentences. Record keeping is provided for each group of students.
Single disk drive can be used, but requires lengthy set-up. Only twelve students may be accommodated unless multiple disks are used. Graphics and sound could add to the testing portion.
Enables instructor to create a word list for students to be tested on the computer. Fifteen words can be listed, and eighteen lists stored on separate spelling disks. Students then use the spelling disk to practice typing each word, with and without an example.

Mastertype
BED*CLI
V
Lightning Software
1981
39.95
Apple IIe
Good
Motivational game with varying degrees of speed and difficulty. Good use of color, graphics, and sound. Sound may be turned off. The program can serve as a follow-up to Microtype, developing further speed and accuracy.
There is a limited tutorial provided.
Gives practice in typing. An arcade approach encourages accuracy and speed.
Booklist 11/1/85
652.3
1. Typewriting 2. Educational games

Math man
MTH
p
Scholastic
1984
39.95
Apple IIe
Good
Motivational. Good use of graphics and color. Students may choose level and speed. Can improve speed in problem solving.
Needs a tutorial to explain how the game works.
Challenges students to practice math skills through a game. The user must plan ahead in a timed sequence to raise or lower numbers to match a target number.

Max Dublin's treasure
LSS
U
Grolier
1984
49.95 Contact representative for discount.
Apple IIe
Good
Fun search games for reinforcement of encyclopedia instruction. Can be divided into 15 minute segments. Good record-keeping, with automatic deletion of oldest score when the 30 record limit is reached. Integrates actual use of the encyclopedia effectively.
Requires a lot of time to complete, e.g., 2 1/2 hours.
Teaches the use of the New Book of Knowledge through computer games. Other similar parts of the series include The Isle of Mem and Wonderquest.

Measuring with a ruler: perimeter, circumference & area
MTH
E
Educational Activities
1984
49.95
Apple IIe
Good
Sides labeled in sequence. Emphasizes number of sides of a polygon when finding perimeter.
Only gives one chance to get correct answer, although answer can be changed before return pressed. Cannot enter double digit number, perhaps because it was a wrong answer. User must have prior knowledge to understand instructions.
Drill and practice (measuring, perimeter, circumference area) management program is built in. Content provided in sample programs.

MECC Keyboarding master
CLI
U*S
TIES: disk, by MECC
1984
59.00
Apple IIe; printer optional
Good
Motivational way to improve keyboarding. Provides flexibility in allowing teacher alteration. Computes gross words per minute and displays a bar graph.
Does not feed back errors until three mistakes are made. 100% accuracy is not needed to win the speed race.
Provides practice in typing paragraphs, aiming for speed and for accuracy. Instructors may enter their own paragraphs for practice. Includes two program disks. Results can be printed.

MECC keyboarding primer
BED*CLI
U*I
TIES; dist. by MECC
1984
59.00
Apple IIe; printer preferred
Good
User-friendly and clear. Gives immediate feedback on typing speed; catches more than three mistakes per line. Systematic instruction in use of keys. Appendices in documentation are good. Has good record keeping capabilities.
Lack of graphics, sounds, or rewards reduces motivation for some students. May be better used in intermediate school rather than upper elementary; younger children may enjoy and benefit more from Microtype.

MECC trivia machine
CLI*LSS
S
MECC
1985
49.00
Apple IIe, color monitor preferred
Excellent
The topics are highly motivational. Graphics are appealing. Users may add or delete key words for subsequent searches. An excellent means of teaching research. Transparency masters and other teaching aids are included.
Searching is somewhat slow. A single graphic is used throughout the program.
Teaches students how to search a data base using key words. Using too few or too many key words results in an unsuccessful search, and costs the searcher some of the $200 assigned initially. The user learns inductively how to identify useful key words. The data base used is in the area of rock music.

MECC write start
WPR
U*S
MECC
1985
29.00
Apple IIe
Good
Good tutorial, clearly stated. Good emphasis on word processing as a communication, rather than a technical, skill.
The word game has no error trapping feature.
Explains and models a word processing program. A tutorial is provided with games and word processing application. A number of activities are included, especially ones that encourage students to create and share with others.

MECC writer
WPR
U*S
MECC
1985
49.00
Apple IIe; printer
Good
Easy to use; fairly flexible for an inexpensive word processing program.
Lacks screen prompts for special commands. Instructions for non-Apple printers are limited.
Provides a simple word processing program for classroom use. Capabilities include search and replace, margin parameters, single or double-space, underline.

Media skills
LSS
U*I
TIES
1981
84.95
Apple IIe
Good
Activity package fun and reinforcing. Back-up copies provided.
Better than other programs seen.
Doesn't use color or sound to a great extent. Slow in execution.
Provides information about card catalog and the Dewey Decimal System.

Micro-skills I
DBM*VOC
H*C
Eureka
1985
490.00; annual update 100.00
Apple IIe
Good
User can complete a skills invantory prior to computer input.
Instructions are brief and clear. Data includes 72 skills and 390 occupations. User is asked to supply 35 skills. Description of each occupation is appropriate for the purpose without an in-depth study.
Program can be adapted for local input.
Sorting requires three minutes. Instructor will want to assist users in making selection of skills, which involves decision making.
Enables the user to match personal skills to possible career choices. The program helps individuals to establish initial career direction.

16

Memory match
PSV
P
Hartley
1983
35.95
Apple IIe
Good
Gives teacher flexibility in redesigning existing games. Student record keeping is part of the program. Different levels of difficulty are offered. Above average documentation is provided.
Fails to use color capabilities for logical purposes. e.g., words, not colors used in matching colors. Instructions for playing are used only in the documentation, not in the screen. Instructional objectives are not defined.
Provides practice in developing memory through a matching game.
Media Review, vol. 7

Micro-skills II
DBM*VOC
C
Eureka
1984
650.00; annual update 150.00
Apple IIe
Good
User can complete the skills inventory with the use of the computer. User may complete or change the list of skills at another time because of the record keeping capacity (with the accompanying data disk) of 20 clients.
Requires lengthy use of the computer for a single user (approximately 45-60 minutes.)
See Micro-skills I.

Microtype
8ED*CLI
U*S
Southwestern
1984
39.95
Apple IIe, Commodore 64, IBM PC
Good
Motivation is good, with sound and visual rewards.
One of the games rewards fast but inaccurate typing.
Provides a keyboarding tutorial with drill and practice.
Booklist 10/1/85

Missing links: young people's literature
LAN*VCY
U*I*H
Sunburst
1984
55.00
Commodore 64
Good
Good literature chosen. By using decoding skills, context clues and spelling knowledge, children make educated guesses about the missing letters.
Interest level is 4th to 5th grade but game is more appropriate for 6th grade and up.
Nine passages are taken from nine children's classics. Different levels of play possible--from one letter msg/word to only blank spaces given as clues.

17

Microzine
CLI*MAG
U*I
Scholastic
1983
149.00
Apple IIe, Atari 800
Good
Interactive story is motivational. Good for motivating students in becoming comfortable with a computer and in reading.
The story may lack logic in its conclusion, e.g., one main character can be left trapped in a dilemma.
The issues include a variety of activities employing graphics, music, etc. Presents a magazine in computer format.

Moptown hotel
PSV
E
K-12 Micro-media
1981
40.00
Apple IIe
Good
Good color; minimum reading skills required. Good mixture of games teaching attributes.

Users are asked to match, mismatch, identify differences, and generally apply attributes concepts.

Maptown parade
PSV
E
K-12 Micro-media
1981
40.00
Apple IIe
Good
Teaches attributes and logic in a simple, clear manner. Gives good screen clues, e.g., <ESC> to end a program.

Users are asked to match, mismatch, identify differences and generally apply attributes concepts.

Muppet learning keys
CLI*LAN*MTH
P
Sunburst
1984
69.95
Apple IIe, Commodore 64; color monitor preferred
Excellent
Special keyboard is very easy to use. Uses an inquiry/discovery approach to learning. Colorful graphics, good animation and sound. Letters on the keyboard match the screen display and are good size for young learners. Good use of symbols, e.g., stop sign to stop the program.
Requires a large surface for the special keyboard. Some graphics are somewhat difficult to grasp, e.g., a large nose with small eyes and legs, a hamburger with eyes and legs, and ink bottle.
Enables young children to explore a simplified computer keyboard to learn numbers, matching letters, numbers, and colors. No reading ability is necessary to operate the program successfully. Suitable for pre-school and special education as well as primary children.

Mother Goose for young thinkers
PSV*LAN
U*J
Book Lures
1982
34.50
Apple IIe
Good
Based on Bloom's taxonomy, the program provides for a review of needed rhymes, practice in the various parts of problem solving, and application of concepts through solving a mystery. In spite of the topic, upper elementary and intermediate students will enjoy honing their skills and finding the thief.

Approaches different levels of thinking through the use of Mother Goose rhymes.
Booklist 9/1/83

N

New step by step
CLI
H*C
Program Design
1981
89.95
Apple IIe
Good
The three formats are excellent in their interfacing.

Provides programmed instruction in computer programming. The set uses a cassette tape with instructions, a computer to apply the information during instruction, and a workbook to summarize and provide additional practice and testing.

Number stumper
ARI
P
Learning Company
1984
35.98
Apple IIe
Excellent
Gets the child to do mental arithmetic. At a higher level, children are encouraged to develop a strategy to use all the numbers in a game. Good graphics and sound. Sound and "luck" are optional. Games are short.
Numbers are limited to 10 or less. Younger children must be instructed in how to use number prompts to operate the game. Letter prompts would have been less confusing than number prompts in a number game.
A computer dice game with an Irish leprechaun theme teaches students to juggle numbers in an effort to use all nine displayed numbers. Correct answers add to the student's collection of coins. Coins may be used to pay for a visual prize or saved for the grand prize of seeing the leprechaun himself.
Booklist 3/1

19

O

Oh, deer!
PSV*SCI
U*S
MECC
1983
44.00
Apple IIe
Good
Can be used effectively as a group activity, with role-playing cards for group members to take. Teaches problem solving, group process, and ecology.
Somewhat slow in execution. Graphics are adequate but involve little animation.
Provides a simulation game in solving a problem in balancing human and wildlife use of land. Background information can be studied via the monitor display prior to decision making.

Organization of resources
LSS
U
Combase
1983
125.00
Apple IIe
Good
Well designed by a computer-wise teacher/librarian, the program will fill a need in an area lacking good software. The package is good with above average documentation. Follow-up activity sheets are also included. Sufficient instruction is given in each area, e.g., alphabetizing author's names, to allow the student to fully understand and apply new knowledge before taking the quiz.

Tutors user on how library collections are organized.

The overnight writer
ADM
C
Library Software
1982
49.95
Apple IIe
Good
Easy to run; reliable in use.
Less flexible than other similar programs. Capacity is limited to 150 records. Requires time to key in information.
Provides a data-based management program for overnight loan materials. Students must have an identification number, but a unique number is not needed for the loan material. Titles are protected to guard students privacy. Useful only in a high volume reserve system.

P

Pets, ltd.
SCI* GUI* SOC
U
MECC
1984
39.00
Apple IIe; color monitor preferred
Good
Uses computer searching of a data base to select an appropriate pet based on user's preferences and limitations.
Grade level is intended for 5-9, but approach is more appropriate for 4-6. Has no sound. Does not include noise or cleaning factors.
Explores pet ownership and its responsiblities. Emphasis is placed on selecting an appropriate pet.

pfs: File
ADM
C
Software Publishing
1982
125.00
Apple IIe, IBM PC, TRS-80, Model IV
Excellent
The format is easily determined for each file with sorting possible for each field, numerically, or alphabetically. The documentation is clear, concise, and complete. A flexible and useful database program, appropriate for many library or general school functions.
This is a very easy to use program for the first-time database program user.
Accidentally hitting one function key can destroy entire file.
Filling numerous records may be rather slow.
Provides a user-designed file system. The program interfaces with two other programs in the series. A version distributed by Scholastic has been adapted for classroom curriculum use.
Software Reviews, vol. 2; Booklist 1/1/84

The pond: explorations in problem solving
PSV
U*I
Sunburst
1983
39.00
Atari 800, Apple IIe
Excellent
Teaches problem solving in a challenging, motivational way.
Excellent teacher's guide. Good use of graphics and sound.
Vocabulary of information displays may be too difficult for target audience.
Patterns, sequencing and logical, are a few of the skills taught.
Media Review vol. 7.

The print shop
ADM
V
Broderbund Software
1984
49.95
Apple IIe
Excellent
Extremely easy to use. Screen prompts provide needed information. Prints out clear banners, signs, posters, greeting cards. Can support language arts activities well because technical aspects are automated.
Does not show finished lay-out prior to printing.
Enables the user to select from a number of formats, borders, fonts, graphics, and layouts. Another Graphics Library program supplies additional graphics.
Media Review vol. 7; Booklist 7/85

Puzzle tanks
PSV
V
Sunburst
1984
55.00
Apple IIe
Good
The set provides a range of levels from beginner--appropriate for third graders; to champion--that stumped the adult reviewers. Well-designed and executed with good motivational appeal.
A drawback was the text-only screen instructions for the user to read prior to playing, when a graphic example would have been more effective.
Teaches problem solving skills through filling and emptying tanks of uneven capacity to reach a target goal. Although adding and subtracting are involved, the problems require application of skills in a higher level of thinking.
Booklist 3/1/84

The puzzler
RED*PSV
U
Sunburst
1985
59.95
Apple IIe, TRS-80
Good
Good in teaching predicting and validating skills. Interesting stories are used.
Limited use of color, graphics, and sound. Moving cursor is distracting and serves no real purpose. Teacher option to add a story would extend the program's usefulness. Minor grammatical error noted.
Users read a story and predict the main character's identity after reading each page. Predictions may be changed until the last. Then answers are compared to other students' predictions. The program may be more useful for small classes.
Booklist 8/85

Q

Quick card
ADM
C
Follett
1985
169.95
Apple IIe, printer required
Excellent
Four control keys (i for insert, d for delete, p for eliminating entire line, n for next, to see second card) allow entering/editing to be easily done. Formats own data disk. Formats elements of card. Automatically traces title and series. Guide gives examples, has tutorial. Each card has an identification number, so it can be easily located. Identifies card being printed.
Sometimes fields are not long enough, e.g., when responsibility has numerous entries--"Hawaii State" as author. No provision for separating notes. Each card is individually saved as it is entered. 17 fields containing the elements of a catalog card can be switched on/off at will. The tracings appear two lines after the last entered line. Allows up to 6 subjects, 6 added entries and 6 title analytics.

R

Ratio and proportion
MTH
U*S
Educational Activities
1984
59.95
Apple IIe
Good
Tutorials are clear and easy-to-read. Wrong answers prompt an abbreviated tutorial. Immediate feedback is good. Motivational reinforcement is given for good scores through some graphics. Management system allows for scorekeeping and for easy deletion after a final check of intent to delete.
Instructions didn't clearly explain to user that it is possible to exit back to the menu at any time. Logging in subsequent students requires re-booting the program.
Gives a tutorial and practice in understanding ratios, including the six ratio statements that are possible for any two sets.
Media Review vol. 8

Read and solve math problems #2: two-step problems
MTH
U*S
Educational Activities
1983
98.00
Apple IIe, TRS-80 Model IV
Good
Very friendly and success-oriented. Two tries are permitted each time although correct answers on the first try win points. Students with numerous errors are referred to the instructor. Good record-keeping capabilities are included. Graphics are appealing.
Solutions follow a rigid structure, not allowing for mental solutions. Program is slow-paced. Slow graphics will not appeal to older students.
Provides guided practice and quizzes in solving two-step operations. The program is intended for upper elementary, remedial secondary, or special education students.
Booklist 9/1/84

23

Readability formulas
RED
C
EBEC
1984
49.00; 59.00 with back-up
Apple IIe
Good
The instructions are quite clear; processing, fast; and analysis, thorough. Useful for educators who need to determine readability levels.
The entry of data seems somewhat more difficult than necessary, with two function key strokes required for each deletion, but the overall program meets its purpose well.
Analyzes reading samples according to seven recognized indices, e.g., Fry, Spache, Flesch.

The red badge of courage
LAN
S
Media Basics
1983
70.00
Apple IIe
Good
Motivates student to read. Gives a bibliography for extended reading. Gives a second chance to answer, gives logical clues for positive feedback.
Literary appreciation questions are at a basic level.
Useful program to encourage students to read the book, and to extend their reading beyond the single title.

Rocky's boots
PSV*MTH*SCI
U*J
Learning Company
1982
75.00
Apple IIe, TRS-80
Good

The documentation would be more effective if it were clear to the user what purpose there is in acquiring the skills, e.g., object of the sophisticated resulting game.
Endeavors to teach thinking skills through gaming. Five preface activities teach the basic skills needed to meet Rocky's Challenge. Instructional concepts include negative and positive values, Boolean logic, creative thinking, digital electronics, etc.
Booklist 1/1/83

S

Salina math games
MTH*PSV
E*I*H
Educational Activities
1983
98.00
Apple IIe
Good
Good variety of games with clever motivation built into each game. The program has a student management component. The timing aspect of some games is a good practice device. The scoring report at the end of each game is useful. The set can be used for a wide range of grade levels. Tutorials are provided at the beginning and to correct wrong answers. The program will adjust the difficulty to each player to equalize the game.
The feedback to the loser of the Round Table is unnecessarily negative. A letter designation for each box in the bingo game would reduce confusion of input.
Provides twelve math games in varying formats. Most are for two players. The set is for drill and practice purposes.
Media Review, vol. 7; Booklist 1/1/85
510
1. Mathematics

SAT English I
LAN
H
Micro Lab Learning Center
1983
30.00
Commodore 64
Good
Provides a tutorial for wrong answers; an explanation of right answers is optional.
Loading of the program, or program parts, is very slow. Includes no graphics, color, or sound. No provisions are made for record-keeping.
Provides a tutorial and testing for SAT preparation in sentence completion, analogies, opposites, grammar and usage, and reading comprehension. Computes test scores automatically. May be more useful for home use than school use.

School tool
CLI
U*E
EBEC
1983
133.00; 163.00 with back-ups
Apple IIe
Good
Although each application in itself is limited, the attractiveness of the program is its sampler format, useful for teaching students and professionals about computer applications.

Demonstrates eight different applications of computers in the management area. Word processing, data base management, and graphing, etc., are shown in a simplified form.
Booklist 7/84; School Library Journal 5/85.
001.6425
1. Programming (Electronic Computers)

School utilities, vol. 2: readability
ADM
C
MECC
1982
discontinued
Apple IIe
Good
Manual gives excellent summaries of the various readability tests on this program. 6 tests possible; Spache, Dale-Chall, Fry, Ravgor, Flesch, Gunning-Fog. Clear instructions on how to choose and type sample passages.
Typing in passages on 40 column built-in word processor is tedious. There is no wraparound feature. Proper nouns must be preceded with #.
Passages of 100 words or more are typed and then analyzed by 6 different methods. Output is available on screen and/or printer.

Snooper troops
PSY
U*S
K-12 Micromedia
1982
44.95
Apple IIe
Good
Uses computer capabilities. Teaches logic, map-making, note-taking. Requires 10 - 15 hours to set up.
The program is well designed and highly motivational. Teachers may have difficulty justifying the amount of time involved since other programs, e.g., Mindstrecher series, teach logic skills as effectively in less time, although without the same degree of motivation.
Booklist 5/1/84

S.N.A.P.
GUI
H
Advanced Process Laboratories
1985
119.00
IBM PC
Good
Assists students to determine if they should or should not apply for financial aid. Easy to run program. Accurate information. Parent involvement included in the process of decision making.
Confidential financial data is erased when individual program is completed.
Financial planning area not as complete as actual forms. Student still needs to complete official forms to submit.
Probably too expensive for counseling program at each school especially when official forms must still be submitted.

Social studies, vol. 2: simulation and drills
SOC
H
MECC
1980
48.00
Apple IIe
Good
Offers a variety of simulations and drills in social studies. Simulation games are interesting and are accompanied by good materials.
One program is relevant to Minnesota only. The "solution" to Fail-Safe is unprovoked, aggressive nuclear attack against the Soviet Union, a feature that will require careful use by the instructor.
Gives several simulations and drill and practice exercises. Students will need to develop background of knowledge prior to using some of the simulations.

South Dakota: an economics & mathematics simulation
SOC*ECN*MTH
H
Educational Activities
1985
63.00
Apple IIe; color monitor preferred
Good
Teaches economic principles graphically. Risk-taking is encouraged, but consequences are real. Encourages classroom discussion of a contemporary problem--that of the social and economic plight of the independent farmer.
Some information needed for decision-making is not available prior to first choices. The parts of the program are somewhat slow in loading.
Students work through a ten-year farm cycle, buying seed, land, equipment, etc., hiring workers, and selling land or taking loans to obtain additional cash. Crop results are randomly generated.
Booklist 7/85

Sport stats
PHY*ADM
C
MECC
1982
49.00
Apple IIe
Good
Easy to use. Similar format for all sports. Call up time quick. Camera ready statistical data sheet included for all sports. Player #1 represents opposing team's statistics in Volleyball Section. Highly technical. More detailed than one would need for high school. It would take several scorekeepers to record all the data. Routine for tennis not available. Basketball also very technical but others are fine.
Provides a record keeping means for various sports.

Speed reader II
LAN*RED
V
Davidson & Assoc.
1983
69.95
Commodore 64
Good
Covers all aspects of speed reading and comprehension. Has test for speed and comprehension. Speed automatically slows down with errors.
Manual could design course better, for example, suggest taking timed test before starting course and as one proceeds. No record keeping capabilities on disk. If spelling is poor, test score on word warm-up exercise is lowered.
Especially useful for HS to adult. Should be a good typist to do warm-up exercises.

Square pairs
PSY
U
Sunburst
1982
29.95
Apple IIe
Good

The game of Concentration is presented in computer format and with instructional purposes. Students begin with built-in games to understand the gaming concept and then move on to design their own matching games. Each game may be played against another student or against the computer. Teachers may also design games with specific content for students to try out.

Stickybear ABC
LAN*CLI
P
Xerox
1982
39.95
Apple IIe, color monitor required
Good
Good use of color, graphics, and sound. Youngest child can operate easily. May help students in computer literacy through simple control of computer and learning to locate letters on the keyboard. Special education application is possible.
Use of only upper case letters. Limited to two words per letter. Shows an animated picture, word, and letter corresponding to the keyboard letter pressed. There are two frames for each letter. The program is designed to reinforce letter and word recognition. Corollary materials include a book, stickers, and a poster.

Stickybear opposites
LAN
P
Weekly Reader
1983
39.95
Apple IIe
Good
Provides endless instruction in common opposites. Requires no reading ability of users to operate. Superb graphics and good sound. Good book and cute stickers are included. The book extends the learning begun by the computer program.
Requires no application by the student, but simply gives display. Teaches children familiar opposites through a moving display.

Stickybear shapes
LAN
P
Weekly Reader
1983
39.95
Apple IIe
Excellent
Requires only three keys. Superb graphics. Motivational visual rewards are given for correct responses; another chance for every wrong answer. No reading ability is required for the target audience. The sound cannot be easily disabled for classroom use.
Gives a gaming approach to placing the correct shape in a picture, matching the shape to its name, or finding a shape in a picture. Includes a book, stickers and a poster.
Booklist 5/1/84

Story maker
LAN
U
Scholastic
1984
95.00
Apple IIe, Apple printer, or Epson + Grappler interface, joystick or Koala pad
Good
Encourages students to write their own stories. The program is flexible with a large gallery of graphics.
Graphic display is not sha Initial use requires some experimentation and discovery. Print-out is only 40-columns and 1/2 page, even with use of an 80-column card. Editing for wraparound must be done prior to printing. Lack of a cursor in text entry makes editing more difficult.
Allows the user to compose a page with text and graphics. Moving cursor over ikons allows selection of a font and graphic, placing the graphic and determining size, drawing a picture, saving the page, and editing.
Booklist 12/1/85

Subtraction puzzles
MTH
P
MECC
1985
49.00
Apple IIe, color monitor preferred
Good
Very motivational with a variety of games. Games focus on thinking skills, extending learning. Information for each game was specific. Users are required to subtract from right to left.
Use of sound is limited.
Provides drill and practice in mastering of subtraction involving regrouping. Regrouping may be done mentally or with the computer's assistance visually. Completion of five or twenty problems enables the user to play a game.

Teasers by Tobbs
PSY*MTH
U*I
Sunburst
1982
49.00 for disk; 39.00 for cassette
Apple IIe, TRS-80, Model IV, Atari 800
Good
Instructions are carefully displayed, and the practice presented in a gaming format. Good graphics and an excellent opportunity to organize knowledge.

Presents math concepts in an interactive format. Students must apply basic math facts but on a grid that requires them to organize their knowledge in a rational format.
Booklist 9/1/83

T

Tables and rounding
MTH
U
Educational Activities
1984
49.95
Apple IIe
Good
Tutorials are clear and easy-to-read. Wrong answers prompt an abbreviated tutorial. Tutorials are not repeated endlessly for subsequent errors. Immediate feedback is good. Motivational reinforcement is given for good scores through some graphics. Management system allows for scorekeeping and for easy deletion after a final check of intent to delete.
Examples of mixed numbers always involve the same number of digits.
Provides a tutorial and quizzing in the areas of whole number tables and rounding whole numbers and decimals.
Media Review 11/84

Tennis draw
PHY*ADM
V
Market Computing
1982
60.00
Apple IIe
Good
Includes a good flow chart in the documentation. Can be used for a wide variety of tournaments, in sports or other departmental events that require draw sheets. The program is easy to use and requires a minimum study of the documentation. Follows USTA conventions.
The program allows for no errors in input; error trapping is not featured. The documentation uses small print and few graphics.
Enables tournament directors to enter players and produce an automatic draw sheet for the twenty different singles tennis events. The program is not intended for general physical education class use, but for tournaments and objective selection.

Thinking and learning
PSV
H
Educational Materials and Equipment
1981
36.70
Apple IIe
Good

Difficult concepts and vocabulary well presented. Useful set.

U

Understanding questions
LAN
C
Communication Skill Builders
1983
29.50
Apple IIe
Good
Items were well-designed. Feedback was good and varied. A useful bar graph displays the score. Useful for therapy for aphasics and other reading impaired users.
Could use graphics. There is no escape feature.
Users are asked twenty questions based on two of five questioning words. Wrong answers generate an explanation of the correct answer.

29

Three Mile Island
PSV*SCI*ECN
S
Muse
1980
37.95
Apple IIe, color monitor
Good
Excellent use of a simulation format. Good graphics to show parts of the reactor. Encourages sequential, cause-and-effect thinking.
Users are allowed to freeze action during problem solving.
Overall purpose of the program and general information are lacking, requiring much time to inquire into various aspects. Depending on instructor's intent, exploration may be desirable but additional information will be needed if time is limited.
Presents the operation of a nuclear reactor in a simulation game. Users control all aspects of the operation, with a cost analysis and operational status as guides. Can be used with science and economics classes.
SLJ 10/84

Unistar II+
ADM
C
Southern Micro Systems
1984
495.00
TRS-80, Apple IIe, IBM PC
Good
Input is easy to enter. Good error trapping is provided.
Goals and objectives do not display on the screen prior to printing.
Enables an instructor to generate IEP automatically with twelve sets of goals and objectives in several different ability areas. Data for each child is input and then used by the program to design an individualized program.

V

W

Water pollution
SCI
S
Educational Materials and Equipment
1982
29.50
Apple IIe, color monitor preferred
Good
Students may set a variety of parameters. Quiz allows for several tries.
Slow in execution. Relies on screen test rather than graphics. Terminology is introduced without explanation. No explanation is made of outcome.
Computes factors involved in controlling water pollution and displays results. Includes information, experimentation, and a quiz.

Whole numbers
MTH
U*S
Educational Activities
1983
49.95
Apple IIe
Good
Immediate feedback is given. Student controls pace and level of difficulty. The program automatically returns to menu, allowing another student to log on. A good record-keeping feature is included. Graphics are satisfactory.
The program failed to retrieve scores on first try during evaluation, but succeeded on the second try.
Shows the user how to subtract large numbers and quizzes on application.
Media Review vol. 8

Word attack
LAN*VCY*GAM
U*I*H
Davidson & Assoc.
1983
49.95
Commodore 64
Good
Good motivational game included for one or two players. Edit mode--can load own word list, even foreign language terms. Good for SAT vocabulary preparation. Additional data disks for specific grade level or SAT may be purchased. Varied music provides immediate feedback.
Screen instructions for game would be helpful.
This is a four part vocabulary building program.
School Library Journal 11/85

Word wizards
LAN
E
MECC
1984
59.00
Apple IIe; dual disk drive preferred; color monitor preferred
Good
Record-keeping is good. Instructors may easily input their own word lists. Helps are offered after wrong answers. Games can be escaped from easily. Rewards are colorful and creative. Effective use of sound.
Use of a single disk drive requires tedious switching of diskettes. The program's appeal will be lessened on a monochrome monitor.
Four language arts games are presented with a wizard theme. Spelling, definitions, word scramble, and matching games are included. A management option allows the instructor to design lists, check on student performance, and change hardware configuration.

Writing an opinion paper
LAN*SDC
H
MECC
1985
49.00
Apple IIe
Good
Examples are good in differentiating between fact and opinion. Can be used as reinforcement for individual use. Addresses curriculum well. Information is easy to understand. Includes a simple word processing program.
Slow in loading. Limited use of graphics; no sound. No records are kept for teacher use in assessment. Topics are not particularly exciting.
Teaches students basics about fact and opinion and how to develop an opinion paper. Notes can be made by the student and the paper prepared as part of the program.

COMPUTER REVIEW CENTER GUIDELINES

The Computer Review Center and Clearinghouse developed out of a need for a centralized resource for information about quality computer software for Hawaii's schools. It is funded by ECIA Chapter 2 and co-sponsored by the General Education and Multimedia Services Branches. The center is located at 641 18th Avenue, Honolulu, Hawaii, in the School Library Services Section, phone 732-5168.

MEMBERSHIP

The center and its services are available to all Department of Education personnel and to participating private schools.

HOURS

The center is open from 8:00 a.m. to 4:30 p.m. Monday to Friday. It is closed only on state and federal holidays. Extended hours until 6:00 p.m. are offered to personnel from outlying districts, if an appointment is made in advance.

USE OF THE CENTER

1. Visitors are encouraged to call in advance to reserve the use of a microcomputer. Appointments are made for an hour's use; if the equipment is not needed by someone else, the use of the microcomputer may be extended as long as needed.

2. Children are not permitted in the center.

3. Visitors are asked to keep food and drink outside the center to prevent damage to equipment.

4. Two kinds of software copying are permitted, licensed duplication by staff members and duplication of public domain materials by visitors. All other copying in the center is prohibited, both by law and by Department of Education guidelines.

SERVICES OF THE CENTER

Evaluation clearinghouse information

A large and growing bank of evaluation information is available to school, district, and state personnel. This information, contained in a computerized clearinghouse and consisting of programs that have been reviewed locally, is disseminated to educators 1) through the document Computer Software Reviews which provides information about good or excellent programs, and 2) upon request by individual schools.

Individual requests may be made by phoning or writing to the center. A brief summary can be shared by phone; a copy of the complete evaluation can be sent in place of or in addition to the brief summary. A form for requesting information, page 37, may be used.

Because of the flexibility of the clearinghouse design, personnel may request information by title, subject, grade level, rating, or a combination of the evaluation elements described on page iv. The information can be a list of titles or a set of complete evaluations.

Educators are also encouraged to contribute to the clearinghouse by completing and sending an evaluation. The state-approved evaluation form, page 39, is preferred in order to provide for consistency in the information added to the clearinghouse.

Professional reviews

If a local review of a specific title is not available in the clearinghouse, the center's professional staff will search professional journals and bibliographies to locate review published nationally. A copy of the review will be sent to the requestor.

Request for preview materials

Educators using the center's services are encouraged to suggest titles for local review. The center's staff will order the material and notify the requestor of the arrival of the material, if the requestor has indicated an interest in participating in the evaluation of the material. An appointment will be made to preview the material with a member of the center's professional staff. All preview materials must remain in the center until returned to the cooperating vendor.

A requestor may also ask that the material be evaluated by the center's staff without involvement of the requestor. A copy of the completed evaluation will be sent, if that option has been indicated on the Request for Software Evaluation form.

Use of selection tools

At times educators may need information about computer software to meet a special content area or other instructional need. The center's staff can provide assistance in using any of a number of selection tools available in the center; educators, however, are expected to complete these kinds of searches independently.

Software collections

The center maintains a collection of materials for preview purposes. The largest is the Minnesota Educational Computing Corporation (MECC) library of the Apple and IBM software available for at-cost purchase through the center. Also currently available is the Commodore 64

collection, which includes materials that may be purchased through the center at a discount.

A second collection comprises computer literacy software and a variety of representative selections for computer-assisted instruction, computer-managed instruction, and computer information retrieval. These materials are arranged alphabetically by computer brand and title.

Materials from the software collections are not available for loan. MECC materials, however, may be made available to in-service sessions through prior arrangement with the center's staff.

Duplication of MECC software

Duplication of MECC software has been made possible through a contract and licensing agreement with its producer for all public schools and participating private schools. Detailed instructions for submitting orders are included on each order form. See page 51 for a sample order form. Only those items listed on the order form may be duplicated by the center.

A special order form details information about ordering items found in the MECC catalog (supplied to all members) but not included in the licensing agreement. These items are batch-ordered quarterly to receive the volume discount. See page 57 for a sample order form.

Walk-in duplication service is offered for in-stock items Monday-Tuesday, from 2:00 - 4:00 p.m. Educators may use a purchase order or order form; the school or individual will be provided with an invoice for the available items. Purchasers may choose to bring their own blank diskettes for duplication; however, diskettes obtained by the center through bulk purchases provide very inexpensive diskettes.

The terms of the MECC contract preclude duplication of materials for individuals not included in public or participating private schools, or for home use.

A single back-up copy may be ordered for each program at time of purchase. Multiple copies of diskettes are not provided without the accompanying documentation, which is usually an essential part of a MECC program.

Defective materials are replaced at no charge upon return of the materials, e.g., diskettes, manuals. Materials may not be exchanged after purchase, however; center users are encouraged to preview MECC materials before purchase if possible, to request an evaluation of individual programs, or to read the catalog description carefully to determine if the MECC materials will meet the needs of the instructional setting.

Public domain software

There is a collection of public domain materials obtained through Softswap and other sources. These materials have not been evaluated and may range in quality. Center users may duplicate the public domain software, using their own blank diskettes, but are urged to preview before duplicating to determine the usefulness and educational value. Visitors may borrow a disk operating system (DOS) diskette for any computer model when copying in the center.

Computer hardware

Each microcomputer system on the current state-approved list, or on earlier lists, is available for personnel to try out before purchase. Calling in advance for an appointment to use a particular model is advised.

In-service sessions

The center's staff is trained to assist visitors to the center in learning to use a particular microcomputer, using a short training video and a tutorial software program for those with no previous experience. They can also help visitors load and run any of the software in the center's collection.

The staff is not able, however, to provide training in computer programming, to conduct sessions in the use of specific commercial programs, or to make recommendations on how to use software programs effectively in the classroom. Requests for this kind of support will be referred to the appropriate resource.

The staff offers its assistance to leaders of workshops who would like to include a session on the evaluation of computer software. They can also help in the selection of materials to be used in conjunction with in-service sessions.

REQUEST FOR SOFTWARE EVALUATION FORM

Please fill in all available information, attaching a copy of the source of information, e.g., review, publisher's blurb, if possible. Send completed form to:

Computer Review Center and
Clearinghouse
School Library Services
641 18th Avenue
Honolulu HI 96816

TYPE OF MEDIUM: Computer software DATE OF REQUEST:

TITLE:

FORMAT (COMPUTER MODEL AND NUMBER)

PRODUCER:

LOCAL DISTRIBUTOR:

GRADE LEVEL:

SOURCE OF INFORMATION:

REQUESTED BY (Name and school):

ACTION REQUIRED:

___ Please contact me at ph: _____ to arrange a time when I may preview the material at the Computer Review Center.

___ Please send me a copy of the completed evaluation.

COMMENTS:

TYPE OF MEDIUM: Computer software DATE OF REQUEST:

TITLE:

FORMAT (COMPUTER MODEL AND NUMBER)

PRODUCER:

LOCAL DISTRIBUTOR:

GRADE LEVEL:

SOURCE OF INFORMATION:

REQUESTED BY (Name and school):

ACTION REQUIRED:

___ Please contact me at ph: _____ to arrange a time when I may preview the material at the Computer Review Center

___ Please send me a copy of the completed evaluation.

COMMENTS:

COMPUTERS IN INSTRUCTION

SOFTWARE EVALUATION FORM

NAME OF EVALUATOR:	POSITION:	DATE:
A. TITLE:		
B. SUBJECT:		
C. LEVEL:		
D. PUBLISHER:		
E. LIST PRICE:		
F. HARDWARE REQUIREMENTS:		
G. OPERATING SYSTEM:		

	POOR	FAIR	AVER.	GOOD	EXCEL.
H. CONTENT:					
1. Accuracy	1	2	3	4	5
2. Educational Value	1	2	3	4	5
3. Freedom from Stereotypes	1	2	3	4	5
I. INSTRUCTIONAL QUALITY:					
4. Well-defined Purpose	1	2	3	4	5
5. Achievement of Purpose	1	2	3	4	5
6. Clear, Logical Presentation	1	2	3	4	5
7. Appropriate Difficulty	1	2	3	4	5
8. Use of Graphics, Color, Sound	1	2	3	4	5
9. Motivational	1	2	3	4	5
10. Effective Student Involvement	1	2	3	4	5
11. Effective Feedback	1	2	3	4	5
12. User Control of Rate and Sequence	1	2	3	4	5
13. Generalizable Learning	1	2	3	4	5
J. TECHNICAL CHARACTERIST[illegible]					
14. Comprehensive Docu[illegible]cation	1	2	3	4	5
15. Effective Documentation	1	2	3	4	5
16. Effective Information Displays	1	2	3	4	5
17. Easily Used	1	2	3	4	5
18. Use of Computer Capabilities	1	2	3	4	5
19. Reliability in Use	1	2	3	4	5
K. OVERALL RATINGS					
20. Content	1	2	3	4	5
21. Instructional Quality	1	2	3	4	5
22. Technical Characteristics	1	2	3	4	5
23. Final Recommendation	1	2	3	4	5

(over)

L. STRENGTHS:

M. WEAKNESSES:

N. OTHER COMMENTS:

SOFTWARE EVALUATION FORM

DESCRIPTION OF ITEMS

A. TITLE: Name of computer software package.

B. SUBJECT: See Listing for Codes.

C. LEVEL: Appropriate grade/age levels. See Listing for Codes.

D. PUBLISHER: Original Source. See Listing for Codes.

E. LIST PRICE: Retail price of package, before discount.

F. HARDWARE REQUIREMENTS:
Identification of brand and model -- APP Apple IIe
IBM IBM PC
TRS TRS-80 Model 4

Indication of additional requirements -- double-sided diskette drives, color monitor, etc.

G. OPERATING SYSTEM:
Identification of operating system needed -- Apple DOS 3.2, IBM DOS 1.1, IBM DOS 2.0, etc.

(NOTE: The descriptions of the following items are intended to be suggestions or guides for consideration in arriving at a judgment of the item. The descriptors are not exhaustive and do not constitute a checklist of priority ordered items.)

H. CONTENT:

1. Accuracy
Possible problems in content accuracy include:
- outdated information or instructional approach
- factual errors
- invalid model used in a simulation
- oversimplified model or examples
- improper use of statistics
- inaccurate graphs or displays.

2. Educational Value
Any decision on this item will be highly subjective. Some considerations leading to a positive judgment might include the following.
- The content and objectives are addressed in common school curriculum.
- The knowledge and skills involved have utility in some aspect of life.
- An instructional situation can be envisioned in which the package would be useful.
- Use of the package enables one to learn something about the nature or needs of the student using it.
- The content of the package is central to the subject field.

Freedom from Stereotypes

Among the stereotyping problems are the following.

- Certain racial, ethnic or sex groups may be overrepresented at the expense of limiting others.
- Some racial, ethnic or sex groups may be portrayed in terms that are indicative of false generalizations about the characteristics of that group.

I. INSTRUCTIONAL QUALITY:

4. Well-defined Purpose

The overall purpose of the package should be concisely stated, with specific objectives stated for specific components.

- Objectives should be explicit, rather than inferred.
- Objective statements should be clear, i.e., unambiguous and without multiple meanings, succinct, free of jargon.
- Objectives should be stated in terms of expected student behaviors.
- The package should include both general and specific statements of purpose.

5. Achievement of Purpose

Based on the objectives, the student using the package should learn what the material sets out to teach, rather than merely being engaged in the process.

6. Clear, Logical Presentation

The information is well organized.

- The structure of the presentation is evident to a user.
- Definitions and explanations are available when necessary.

The progression of presentation is logical and well identified.

- There is a smooth transition between concepts and cognitive clusters.
- Examples, counter-examples and illustrations are used when possible and appropriate.
- The examples are relevant to the point of instruction.

7. Appropriate Difficulty

The means of response is appropriate to the target audience such as:

- multiple choice, manipulating graphics, single keystroke, etc.

The readability of support materials and program text is consistent with the expected ability level of the audience.

- Vocabulary, phrasing and sentence length are specific considerations here.

Examples and graphic illustrations are suitable for the maturity of the students.

The time required for typical student use does not exceed the attention span of the target audience.

Size of steps in logical processes are suited to the ability level of the the student.

There are multiple levels of instruction with diagnostic and reinforcement routines for individual differences in the target audience.

- The program automatically branches to remediation sub-routines if user responses are required.
- The program automatically progresses to more difficult problems to continually provide a challenge to the user who has mastered the easier problem.
- The program automatically provides easier problems to the user who is having trouble.

8. Use of Graphics, Color, Sound

Graphics, sound and color enhance rather than detract from the instructional process.

- Use of sound does not disturb others in a classroom environment.
- Graphics, sound and color focus attention on important content areas.
- Good message design principles are used in order to place emphasis on important concepts.
- Visual and auditory effects stimulate student interest.

9. Motivational

Students are effectively addressed in a personal style.

- Narratives in the program use humor and a conversational manner.
- The overall tenor of interaction is warm, friendly, helpful.
- The package provides for a variety of student response and response modes.
- A variety of responses to student inputs is used.

Reinforcement is positive and dignified.

- A student is left with a desire to use the package again, or to pursue the topic in other ways.
- A student is left with a positive attitude about the experience.
- Using the package is a pleasant experience.

10. Effective Student Involvement

The package effectively challenges student creativity. The learner is involved in an active, rather than passive, manner in the instruction. This involvement may be characterized by the following:

- The student has control over as many input variables as the program permits.
- The computer is used in a "hands-on" way, rather then merely in a presentation mode.
- The program design allows the student as many decisions as possible.
- The package provides opportunities to answer open-ended questions that have no "right" or "wrong" answers, and gives the student evaluative criteria to judge his/her own responses.
- The program is designed to anticipate a wide range of possible responses.
- The student is provided with new ways of looking at the world.
- The package demonstrates a creative means of using the knowledge being acquired by the user.

- The package suggests areas of further exploration or other activity for the student.
- The student is challenged to change an underlying model or design an alternative model.

11. Effective Feedback

The feedback to students' responses is relevant to the students.

- "Credible" and related to the given response.
- Non-threatening, yet corrective when necessary.
- Timely, i.e., given with appropriate frequency and given immediately after a response.
- Remediates, gives cues, hints and explanations.

The feedback is meaningful.

- There is quantitative feedback when valuable, e.g., indication of the number and percent of problems correct out of the number of problems attempted.
- The feedback tells "why" the response was incorrect.

The feedback is appropriate.

- The judgment of the student responses properly assesses the concept being taught, not merely its form.
- The program adapts to the learner by adjusting the difficulty level of the content.

12. User Control of Rate and Sequence

The learner controls the rate and sequence of presentation.

- Control over the time allowed for solving problems, allowing for accelerating or slowing the pace as the user deems necessary.
- Control over the rate of presentation of display material so that she/he can read and absorb the information at own rate.

The program does not lock the student into a linear instructional sequence.

- Allows the student to begin at a point appropriate to his/her past achievement.
- Provides for review of instructions initiated by the user.
- Defines "functions" for learner options such as HELP, HINT, DICTIONARY.

13. Generalizable Learning

The learning is applicable to a student's current and future experiences. Opportunities are presented that require generalization of rules acquired at the computer and opportunities to apply those to real life situations away from the computer.

- The processes and information learned are useful in domains and situations other than the subject area of the package.
- The content is organized in such a way as to facilitate recall and application away from the computer and outside of the immediate content domain.

J. TECHNICAL CHARACTERISTICS

14. Comprehensive Documentation

User support materials are comprehensive, including:

Student Materials - a variety of student activities
- Pre-instruction activities relating to the package
- A guide to the use of the package
- Follow-up activities to reinforce the instruction
- Related worksheets

Teacher Information - description of the instructional activities
- Rationale for computer use
- Suggestions for classroom logistics in a variety of hardware situations
- Prerequisite skills necessary for best utilization
- Teacher directed pre- and post-instructional activities

Resource Information - related references and descriptions
- Bibliography of resources and references related to the content domain
- Sample run of the program
- Possibilities for program modifications
- Description of the model used in simulations

Technical Documentation - detailed explanation of how the program and package operate
- Program code listing
- Explanation of user definable options to adapt the program for different applications
- Explanation of the software/hardware interface or any other extraordinary features of the program
- Flowchart or other diagrams of general logic of individual programs and package
- Interpretation of error messages

15. Effective Documentation

The user support materials are technically effective, including:

Appearance and design - appropriate and attractive
- Appearance of the materials attractive
- Quality of paper or binding appropriate to intended use and expected life
- Printed text clear, readable and attractive
- Text, captions, labels, etc., thoroughly edited and free of errors in grammar, spelling and punctuation

Packaging - suitable for intended use
- Teacher support materials separated from student materials
- Student materials (e.g., worksheets) with masters intended for reproduction packaged "loose" or for easy reproduction
- Program storage media easily accessible, yet protected from random injury expected in mailing, dropping, etc.
- Storability of entire package as a unit in standard storage facilities (shelves, cabinets, etc.)
- Easily used in table space typically available near a microcomputer station

- Appropriate containers such as folders/binders/pockets for storing printed materials, disks, cassettes or other components and boxes or other containers for organizing and storing the entire package.

16. Effective Information Displays

Design and display enhancements -

- Visual arrangement of display materials follows good message design principles.
- Graphic displays are not too complex or full of too much information.
- Appropriate use of static and dynamic graphics.
- Screen and printed displays make effective use of open space, including adequate spacing for clarity.
- Character sets employed are appropriate for the intended audience.
- Graphics are not too repetitive or too slow in presentation and are appropriately mixed with text material to give variety to the presentation.
- Transitions from display to display are smooth and unobtrusive.
- Input options are independent of color, or at least avoid common color blindness problems.
- Adequate teacher/student options for use or non-use of sound are provided.

Text presentation and use -

- Text narrative on the monitor or printer is clear and easy to read.
- Narrative is not ambiguous.
- Text information is not too lengthy or "wordy."
- The user is given adequate time to read and absorb the information given on displays.
- Text is free from spelling and punctuation errors.
- There is not too much text for the display, and text position is consistent and/or predictable (i.e., student does not need to hunt for the information).
- Scrolling is used appropriately. Only pertinent information is retained on the screen.

17. Easily Used

Program documentation and design -

- The program has enough internal documentation to permit ease of use even without external paper documentation.
- Formats and protocols for user-computer communication are consistently and logically applied.
- Directions are accompanied by useful examples where appropriate.
- Traps are used copiously to catch potential errors of any kind, and to avoid moving control from the application to the operating system software.
- Instructions and error messages are clear and unambiguous, giving user clear directions as to what must be done to effectively use the program.

Program structure and content -

- The program does not allow the user to get lost in the program with no apparent way out. Options are provided for getting the program running again, or returning to a beginning point.
- The program does not stop or appear to be doing nothing without clues.
- The program responds to inputs as the directions indicate.
- The user can easily exit the program, return to menus, or move to another section with program-described conventions.
- The program accurately evaluates student input, i.e., it does not misinterpret student responses and thereby identify a response as incorrect when it is in fact correct.
- Computer operation does not interfere with concentration on the activity.
- The program can be used with a minimum of computer competencies.

Program functions -

- Help pages and functions are provided and accessible at likely points of need.
- The user is informed of which function keys are to be used in the course of the program and their purpose.
- There is the necessary cueing for function key usage.
- Those function keys referred to in the program are available on the hardware.
- The use of function keys does not necessitate re-input of user responses previously input into the computer.

Teacher employability -

- The program can be used by a teacher with minimum computer competencies.
- The program requires a minimal amount of equipment manipulation by the teacher.
- Software modifications or unusual manipulations of disks are not required to use the program effectively.
- The package is easily adaptable to a variety of classroom learning environments, including placement of hardware inside or outside the classroom.
- Error handling and identification are sufficiently detailed so the teacher can easily help a student.
- Students require a minimum amount of teacher supervision while using the program.

18. Use of Computer Capabilities

The application is well suited to computer use and not one that can be handled more appropriately by other means.

- The computer is used in a dynamic, interactive way.
- The computer makes effective use of other peripheral devices (e.g., printers, light pens, paddle controller, joysticks, etc.) for alternate input modes.
- The computer is used so that students are actively involved in a "hands-on" manner rather than only passively observing.
- The computer responds to natural student input such as "YES" or "NO" "Y" or "N", rather than "1=YES", "2=NO."

Course management or computer collection and organization of data on instruction is available.

- Information about the student's performance is stored for retrieval at a later time.
- The computer makes decisions based on student performance according to the teaching strategies inherent to the program.

19. Reliability in Use

The program will consistently run under all normal conditions.

- No special precautions such as clearing memory are required for effective program execution.

The program will consistently load into the computer without undue complexity such as reloading.

The program is free of programming and operational errors ("bug-free").

K. OVERALL RATINGS

20. Content

Average or overall content rating.

21. Instructional Quality

Average or overall instructional quality.

22. Technical Characteristics

Average or overall technical characteristics rating.

23. Final Recommendation

Overall rating for the package.

SOFTWARE EVALUATION FORM CODES

B. SUBJECT

Code	Subject
ADM	ADMINISTRATIVE
ALG	ALGEBRA
ARI	ARITHMETIC
ART	ART EDUCATION
AUP	AUTHORING PROGRAMS
BED	BUSINESS EDUCATION
CLA	COMPUTER LANGUAGES
CLI	COMPUTER LITERACY
DBM	DATABASE MANAGEMENT
DRE	DRIVER EDUCATION
ECN	ECONOMICS
ESL	ENGLISH AS SECOND LANGUAGE
FLG	FOREIGN LANGUAGE
GAM	GAME
GEG	GEOGRAPHY
GEO	GEOMETRY
GRM	GRAMMAR
HEC	HOME ECONOMICS
HIS	HISTORY
HLT	HEALTH
IAR	INDUSTRIAL ARTS
LAN	LANGUAGE ARTS
LOG	LOGIC
LSK	LIVING SKILLS
MAG	MAGAZINE
MTH	MATHEMATICS
MUS	MUSIC
OPS	OPERATING SYSTEM
PHY	PHYSICAL EDUCATION
PSV	PROBLEM SOLVING
RED	READING
SCI	SCIENCE
SED	SPECIAL EDUCATION
SOC	SOCIAL STUDIES
SST	SPREADSHEET
SPL	SPELLING
VCY	VOCABULARY
VOC	VOCATIONAL
WPR	WORD PROCESSING
WRT	WRITING

C. LEVEL

Code	Level
P	PRIMARY (K-3)
U	UPPER ELEMENTARY (4-6)
E	ELEMENTARY (K-6)
J	JUNIOR HIGH (7-9)
I	INTERMEDIATE (7-8)
H	HIGH SCHOOL (9-12)
S	SECONDARY (7-12)
C	COLLEGE/ADULT
V	VARIOUS (STUDENT/ADULT)

2/86

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MECC NO	QUANTITY	TITLE	COST	*BACK-UP	TOTAL
A-101		Data handler in the classroom (must be used with A-129)	6.75		
A-102		Data handler in the classroom, student manual	4.00		
A-103		Smoking: it's up to you	3.50		
A-104		Payroll: a business simulation	4.75		
A-105		MECC hi-res toolkit	3.75		
A-106		Word herd: sound-alikes	2.50		
A-107		Ducks	3.25		
A-109		Circus math	2.75		
A-110		Exploring sorting routines	3.25		
A-111		Pets, ltd.	2.50		
A-112		Word wizards	3.25		
A-113		Ifs and thens of programming	3.00		
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A-116		Puzzles and posters	3.00		
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A-120		Word herd: look alikes	2.50		
A-121		Jeux mathematiques classiques	3.00		
A-122		Computers in government	3.75		
A-123		Prime numbers	3.25		
A-124		Estimation	3.25		
A-125		Addition logician	2.75		
A-126		Study guide	2.50		
A-127		Salt and you	2.00		
A-128		Discovery lab	3.25		
A-129		Data handler	5.50		

*One back-up disk may be ordered with each complete program. Add $1.00 for each back-up in column provided.

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MECC NO	QUANTITY	TITLE	COST	*BACK-UP	TOTAL
A-130		+MECC keyboarding primer - 2 diskettes (1 teacher's, 1 student's)	5.00		
A-131		+MECC keyboarding master - 4 disks (2 teacher's, 2 student's)	9.75		
A-132		MECC writer (requires 80-column card and printer)	3.00		
A-133		MECC write start (requires 80-column card)	4.50		
A-134		MECC speller (requires 80-column card and printer) - 2 diskettes	4.25		
A-135		MECC editor (requires 80-column card and printer)	4.00		
A-136		MECC graphing primer (requires Apple DMP or Imagewriter or printer with Grappler) companion to A-137	2.25		
A-137		MECC grapher (see requirements of companion program, A-136)	3.00		
A-138		MECC stuff and fetch (requires 80-column card and printer)	3.50		
A-139		MECC trivia machine - 2 diskettes	3.75		
A-140		MECC datequest: the presidents - 2 diskettes	5.00		
A-141		MECC info. manager (requires 80-column card, printer) - 2 disks	7.50		
A-142		MECC computing and information teacher's guide (manual)	11.25		
A-143		Business utilities	3.75		
A-144		Labels, letters, and lists (requires 80-column card and printer)	4.00		
A-145		Space subtraction	2.50		
A-146		Subtraction puzzles	2.50		
A-147		Multiplication puzzles	3.00		
A-148		Quotient quest	3.00		
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A-150		Math management	3.25		
A-151		Mastering math worksheet generator	3.25		
A-152		Student stories	2.75		
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A-402		Genetics (will not run on an enhanced Apple IIe)	8.25		
A-403		Logic gates	6.50		
A-404		Test scoring (for use with keyboard or some card readers)	4.00		
A-405		Sports stats	6.75		
A-406		Create-a-base	8.00		
A-407		Book worm	7.25		
T-611		Planning for educational technology (manual)	6.00		
T-612		Computers in teaching - 2 diskettes	2.50		
T-613		Logo, words, and ideas	9.75		
T-614		Computers in math curriculum (manual)	10.75		
T-615		Structured design and programming - 2 diskettes (requires Apple Pascal System to run; T-615B also requires an Apple Fortran Compiler system to run)	13.00		
T-616		Computing tools: spreadsheets (requires use with Visicalc)	9.00		
T-617		Computing tools: word processing	7.50		
T-618		Computing tools: databases	3.75		
T-619		Computing tools: grade manager (manual)	4.75		
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T-623		Computing tools: Appleworks	5.75		
T-624		Integrating computing into the curriculum (manual)	5.75		
T-625		Apple II new user's guide (manual)	1.25		
T-626		Teaching writing with a word processor	5.25		
T-627		Apple PASCAL user's guide (manual)	2.50		
T-636		Introduction to Applesoft BASIC answer key (manual)	3.00		
T-637		Introduction to Applesoft BASIC	7.00		
T-641		Files on the Apple	5.25		
T-642		Files on the Apple answer key (manual)	1.50		
T-643		101 activities for computer classes (manual)	8.00		
T-644		Apple logo in the classroom (manual)	11.50		
T-648		Beginning Applesoft BASIC	5.25		
T-649		Introduction to logo for teachers	7.25		
T-651		Using the computer in the classroom (manual)	4.50		
T-654		Instructional computer presentations	10.00		
T-656		Introduction to Pascal for programming teachers (see note on T-615)	13.50		
T-657		Micros: course for parents and children (manual)	4.25		
T-660		Intermediate Applesoft BASIC (manual)	6.50		
T-670		Advanced Applesoft BASIC	6.00		
T-675		Applesoft special features	3.50		
T-680		Writing support materials (manual)	5.50		
T-686		Designing instructional materials - 2 diskettes	8.00		
T-691		Apple assembly language	7.00		
T-701		MECC apple demonstration	2.25		
A-702		Elementary vol. 1 - mathematics	4.25		
A-704		Elementary vol. 3 - social studies	5.00		
A-705		Elementary vol. 4 - math/science	5.00		

*One back-up disk may be ordered with each complete program. Add $1.00 for each back-up in column provided.
+Multiple copies of student program recommended; no limit on number order. Add $1.00 for each additional diskette.

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A-707		Science vol. 3 - earth/life science	4.50		
A-708		Science vol. 1 - biology/physics	3.50		
A-709		Science vol. 2 - biology/physics	5.50		
A-710		Social studies vol. 1	3.75		
A-711		Social studies vol. 2	6.00		
A-712		Music theory	7.25		
A-714		Business payroll	3.50		
A-716		Aestheometry vol. 1	4.25		
A-719		Elementary vol. 5 - language arts	3.75		
A-720		Programmer's aid vol. 1	5.00		
A-721		Business vol. 3 - accounting with answer key	14.75		
A-724		Shape tables vol. 1	4.75		
A-725		Elementary vol. 6 - social studies	5.25		
A-726		Spelling vol. 1	2.75		
A-727		Special needs vol. 1 - spelling	3.75		
A-728		Spelling vol. 2	3.50		
A-730		School Utilities vol. 1 - projections	3.25		
A-731		Elementary vol. 7 - pre-reading/counting	3.75		
A-732		Elementary vol. 8 - geometry	2.25		
A-733		Elementary vol. 9 - geometry	2.75		
A-734		Elementary vol. 10 - geometry	2.50		
A-735		Elementary vol. 11 - phonetics	1.75		
A-736		Elementary vol. 12 - language arts (SIMS)	2.75		
A-737		Mathematics vol. 2 - measurement	3.25		
A-738		Mathematics vol. 3 - geometry	4.00		
A-739		Art - perspective drawing	3.00		
A-740		Teacher utilities, vol. 2/3/4 - 3 diskettes	9.50		
A-743		Elementary vol. 13 - nutrition	4.25		
A-744		Mathematics vol. 4, advanced	9.50		
A-745		Science vol. 4 - physics/chemistry	5.00		
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A-748		Pascal learning aids (requires Apple Pascal System to run)	4.75		
A-750		Health maintenance vol. 1	3.00		
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A-752		Nutrition vol. 1	4.00		
A-753		Nutrition vol. 2	3.75		
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A-758		CGMM vol. 2 - problem solving	5.00		
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A-761		Health immunization record keeping	2.50		
A-762		Auto tech. math vol. 1	3.00		
A-763		Auto tech. math vol. 2	2.75		
A-764		Electronic spreadsheet	9.50		
A-765		Electronic spreadsheet - student manual (limited supply discontinued item)	2.50		
A-766		Blissymbolics: Blissboard	3.50		
A-767		Blissymbolics: Bliss library - 3 diskettes	5.50		
A-768		Blissboard drills	2.75		
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A-770		Word processing on the Apple - student manual	4.00		
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A-785		Writing a character sketch	2.75		
A-786		Extensions to Applesoft BASIC	3.25		
A-787		Teaching assistant - French version	2.00		

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A-791		El asistente del instructor	2.50		
A-810		Experiencing procedures	4.25		
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A-812		Charting a path (manual)	2.25		
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A-814		Loops	3.00		
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A-817		Graphing	3.25		
A-818		Programming special projects	4.00		
A-819		Number systems	4.25		
A-820		Polls and politics	4.00		
A-821		Probability	3.25		
A-822		Nutrition and food groups	3.25		
A-823		Modeling	3.50		
A-824		Classification	3.75		
G-612		Computer lab guidebook (manual)	10.25		
G-622		Computers in the curriculum (manual)	19.50		
G-900		1985-1986 MECC book (manual)	20.00		
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G-950		Product index	1.00		
IBM COLLECTION					
I-101		The three r's of microcomputing	4.00		
I-102		Charting a path (manual)	3.25		
I-103		Processing words	3.50		
I-104		Programming special projects	4.00		
I-105		Computers in government	3.75		
I-106		Loops	3.25		
I-107		Electronic money	3.50		
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I-109		Graphing	4.00		
I-110		Number systems	4.25		
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I-126		Business and management concepts	4.50		
I-127		The electronic spreadsheet, teacher's manual with student manual (for use with Visicalc) - 1 diskette	9.50		
I-128		The electronic spreadsheet, student manual (see note on I-127)	4.25		
I-129		Data handler	5.00		
I-203		Puzzles and posters	3.50		
I-204		Teaching assistant (requires use of printer)	3.50		
I-605		Using the computer in the classroom (manual)	3.25		

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