DOCUMENT RESUME

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                       1-9.
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ABSTRACT

        This document consists of 30 microcomputer software
package evaluations prepared for the MicroSIFT (Microcomputer
Software and Information for Teachers) Clearinghouse at the Northwest
Regional Educational Laboratory (NWREL). The concise, single-sheet
resume describing and evaluating each software package includes
source, cost, ability level, subject, topic, medium of transfer,
required hardware, required software, instructional purpose,
instructional techniques, documentation available, instructional
objectives (stated), instructional prerequisites (inferred), content
and structure, estimated student time required, potential uses, major
strengths, and major weaknesses. (An evaluation summary rates
packages on 21 criteria.) The titles of the software packages
evaluated are as follows: French Vocabulary Builder (PLATO); Computer
Math Activities, Volume 5; Grammar and Writing; Verb Viper; Wordman;
Word Invasion; Career Scan IV; Computer Literacy: Introduction
(PLATO); Decimals Practice (PLATO); LeVocabulaire Francais; Biology:
The Cell; Physics: Elementary Mechanics (PLATO); Tank Tactics; Big
Door Deal; Fractions Practice (PLATO); German Vocabulary Builder
(PLATO); Pik-Pek-Put; Whole Numbers Practice (PLATO); Personal
Graphics; The Factory; Stickybear Numbers; Special Needs, Volume
I--Spelling; The Exploring of America Series; Sports Stats; Mind
Benders, A3; Spanish Vocabulary Builder (PLATO); Mind Benders, B1;
Advertising Techniques; The German and Russian Hangman; and Genetics.
(LMM)

ED239606

MICROSIFT COURSEWARE EVALUATIONS (169-198). SET 9.

Including Subject and Title Indexes Covering Sets 1-9.

Dave Weaver
Northwest Regional Educational Laboratory
1984.

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French Vocabulary Builder (PLATO)

PRODUCER: Control Data Publishing Co.
P.O. Box 261127
San Diego, CA 92126

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ISC, Houston, Texas.

COST: $60.00

ABILITY LEVEL: Grades 7 through postsecondary
SUBJECT: Languages
TOPIC: French, Vocabulary
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, disk drive, TV or monitor. Also available for: Atari 800, TI 99/4A and IBM-PC
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In program — instructional objectives, prerequisite skills or activities, sample program output, program operating instructions, student's instructions. In supplementary materials — instructional objectives, prerequisite skills or activities, program operating instructions, teacher's information, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) The French activity is intended to provide drill and practice in recognizing and understanding a basic French language vocabulary.

INSTRUCTIONAL PREREQUISITES: (STATED) A basic introductory exposure to French and a review of the vocabulary lists would be helpful to the student prior to using the program. A basic understanding of the French alphabet and the pronunciation and accenting of French words would also be beneficial.

CONTENT AND STRUCTURE: The package consists of two game formats utilizing vocabulary words divided into ten different categories: Basic Words, Personal, Number Words, Traveling, Useful Verbs, What to Eat, Around Home, Shopping, School Days and Miscellaneous. The student has the option of choosing the category of words, and translation from English to French, French to English, or mixed. The student then selects one of the formats, Pyramid Game, or Hangman. Both formats utilize graphics to provide visual feedback. When the game has been chosen, the student has the option to begin the lesson immediately or review the rules and/or vocabulary list.

EVALUATION SUMMARY

SA A D SD NA

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
•					Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
•					Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
•					Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content – 4, Instructional Characteristics – 4,
Technical Characteristics – 3.

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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French Vocabulary Builder (PLATO), continued

ESTIMATED STUDENT TIME REQUIRED: Each
separate game requires 5-10 minutes per game.
Two games per vocabulary list would imply 1-1/2
hours per disk.

POTENTIAL USES: The package could be used
for practice, remediation, or enrichment in first
or second year French classes. It is a method of
reinforcing vocabulary and correct spelling.

MAJOR STRENGTHS: The program provides
effective drill and practice in vocabulary from
French to English or English to French. Graphics
and sound are utilized effectively to provide
immediate feedback.

MAJOR WEAKNESSES: Teachers do not have an
option to create their own vocabulary list for use
in the program. Also, the program does not
provide a management system to be stored on the
disk for retrieval by teacher. Definitions
displayed in the Pyramid Game under the key
words are difficult to read.

OTHER COMMENTS: Support materials are
appropriate for each category, but should not be
viewed as comprehensive. It might be helpful if
the program provided students with a list of
words with which they seemed to have difficulty.

Computer Math Activities, Volume 5

VERSION: Apple

PRODUCER: Addison-Wesley Publishing Co.
Sand Hill Road
Menlo Park, CA 94025

EVALUATION COMPLETED: June 1983 at
University of Portland, Portland, Oregon.

COST: $15.00

ABILITY LEVEL: Grades 1 through 9
SUBJECT: Mathematics
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 32K Apple II, single
disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard
instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and
practice, game

DOCUMENTATION AVAILABLE: In program —
program operating instructions, teacher's
information, and student's instructions. In
supplementary materials — suggested
grade/ability level(s), instructional objectives,
prerequisite skills or activities, sample program
output, program operating instructions, teacher's
information, resource/reference information,
student's instructions, and student worksheets.

INSTRUCTIONAL OBJECTIVES: (STATED)
Objectives are stated in detail in the
documentation.

INSTRUCTIONAL PREREQUISITES:
(INFERRED) The student must have obtained the
skills used in the game to be a successful
participant.

CONTENT AND STRUCTURE: This package is
made up of five math games: STRATO MATH —
timed practice adding, subtracting, multiplying,
or dividing whole numbers, decimals, or integers
(1-5 players/teams); MATH RING TOSS — timed
practice adding numbers such as 100, 10, 1, 0.1,
etc. (1-5 players/teams); EQUATIONS &
INEQUALITIES — practice generating
mathematical sentences using equality and
inequality symbols and addition, subtraction,
multiplication, and division (1-5 players/teams);
MATH FACES — practice selecting the correct
operation symbol in computation and word
problems and solving word problems (1-5
players/teams); and NAME THAT
NUMBER-FRACTION-SHAPE — practice in
basic number facts using addition, subtraction,
multiplication, or division, in identifying
polygons, or the meaning of fractions (1-5
players/teams).

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•		•			Purpose of package is well defined.
•					Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
•					Use of package is motivational.
			•		Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•	•			Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
		•			Users can operate easily and independently.
		•			Teachers can employ package easily.
	•		•		Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or
recommend use of this program with little or no
change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 3,
Technical Characteristics - 4.

Computer Math Activities, Volume 5 continued

ESTIMATED STUDENT TIME REQUIRED:
Students in grades 4-9 could become familiar with
this package if 20 minutes of time on the
computer were allowed each day. Students in
grades 2-3 would need much teacher
involvement. If the game was set up for the
student, then it would possible for the student to
play the game independently.

POTENTIAL USES: This package would be used
as drill and practice after particular math skills
had been introduced. The material could also be
used as a remediation tool for basic math skills
because of the motivating nature of the games.
Enrichment is another possible use of this
package due to the many levels that each game
offers.

MAJOR STRENGTHS: This program offers much
variety in the activities offered to practice basic
skills. It also provides three or four levels of
difficulty for each activity. The operator has
many options when choosing the rate and
sequence of the material as well as the option to
return to directions if needed.

MAJOR WEAKNESSES: At times the reading
level was way beyond the content level of the
math activity. Classroom teachers at the primary
level would have to spend much time either
teaching the students how to enter information to
play the games or they would have to set up the
computer to a particular game for each student
or group of students. The reading level of
remedial intermediate students might make it
difficult for them to use the program
independently. The variety of activities offered
might prov confusing to students trying to select
the correct program.

OTHER COMMENTS: At times the games went
very slowly. One activity (Strato Math) had very
little practice (one problem) before the
motivational game was rewarded.

Grammar and Writing

PRODUCER: Encyclopedia Britannica
                        Education Corporation
                        425 North Michigan Avenue
                        Chicago, IL   60611

EVALUATION COMPLETED: October 1983 by
the staff and constituents of the Alaska
Department of Education, Juneau, Alaska.

COST: $229.00

ABILITY LEVEL: Grades 4 and 5
SUBJECT: Language Arts
TOPIC: Grammar, Writing
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II, single
disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and
practice, tutorial

DOCUMENTATION AVAILABLE: In program —
program operating instructions and student's
instructions. In supplementary materials —
suggested grade/ability level(s), instructional
objectives, prerequisite skills or activities,
sample program output, program operating
instructions, teacher's information,
resource/reference information, student
worksheets, and follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To
reinforce grammatical skills and improve writing
ability.

INSTRUCTIONAL PREREQUISITES: (STATED)
Students should be familiar with the eight parts
of speech.

CONTENT AND STRUCTURE: The Grammar
and Writing Series is composed of the following
four diskettes: 1) Parts of Speech — instructs
students to deal more effectively with parts of
speech in a writing context. 2) Sentence Patterns
— provides an understanding of English patterns
by developing sentences to match given patterns.
3) Usage — reinforces awareness of common
grammatical usage in writing context. 4)
Paragraphs — instructs ways to edit and refine
paragraphs. Each disk is organized to instruct,
reinforce, and evaluate the various skills by
providing individualized instruction and practice
exercises. The series uses an "exploration" theme
to generate interest and provide educational
content. The package provides a way for
definitions of terms to be available to the student
upon request. A summary of the students'
performance is generated at the end of each
lesson and a record sheet is provided in the manual.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
•					User support materials are effective.
	•				Information displays are effective.
•					Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or
recommend use of this package only if certain
changes were made.

Summary: Scale from 1 (Low) to 5 (High).
Content - 3, Instructional Characteristics - 3,
Technical Characteristics - 4.

Grammar and Writing, continued

ESTIMATED STUDENT TIME REQUIRED: A student would require 9 to 12 weeks, 2 or 3 sessions per week, to complete all the activities. Each activity is about 15 minutes.

POTENTIAL USES: The courseware introduces specific grammar and writing skills and proceeds to provide drill in the skill being presented. Content includes parts of speech, sentences, usage and paragraphs. The programs provide an opportunity for either the independent worker or a class of computer users to develop language skills by making grammatical and stylistic choices.

MAJOR STRENGTHS: The programs cover important skills. It is easy to use. The presentation is clear. Submenus are included in each major activity area allowing the student a range of choices.

MAJOR WEAKNESSES: Answers which are grammatically correct but nonsensical are accepted as correct. This introduces amusing sidelights, but can be distracting to students.

OTHER COMMENTS: One activity incorrectly has an explorer encountering a tiger near the Niger river. (There are no wild tigers in Africa.) This courseware package has potential as a supplemental source of grammar skills activities.

Verb Viper

PRODUCER: DLM, Inc.
One DLM Park
Allen, Texas 75002

EVALUATION COMPLETED: July, 1983 by the staff and constituents of Montgomery County Public Schools, Maryland.

COST: $44.00

ABILITY LEVEL: Grades 3 through 6
SUBJECT: Language Arts
TOPIC: Parts of Speech
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+/IIe, single disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft, DOS 3.2 or 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In supplementary materials — instructional objectives, sample program output, program operating instructions, teacher's information, student's instructions, student worksheets, and follow-up activities

INSTRUCTIONAL OBJECTIVES: (STATED) To provide drill and practice in recognizing the proper use of various verbs in context.

CONTENT AND STRUCTURE: Verb Viper provides the player with practice in selecting the correct verb for specific subjects that appear on the screen. The game provides practice in selecting singular and plural forms of the "to be" verbs (am, is, are, was, were) and the verb "have" (has, have); singular and plural forms of the present tense action verbs; forms of regular and irregular past tense verbs; and past participles with auxiliary verbs. A friendly creature with a surprisingly elastic neck, Verb Viper feeds on verbs emerging from a cluster of caves. A subject appears below him and verbs move from a cave toward the Viper. The player must select the correct verbs for the specific subjects to feed the Verb Viper. When the Verb Viper eats five correct verbs, his neck will extend to the next cave for more verbs. Each cave is closer to Verb Viper so the verbs reach his tongue faster with each successive cave. If a player feeds the Verb Viper too many incorrect verbs or misses feeding him too many correct verbs, he will lower his neck to the cave below. If this happens at the bottom cave, the game resets. If it resets three times, the game is over.

ESTIMATED STUDENT TIME REQUIRED: 10-15 minutes per day, several times a week

EVALUATION SUMMARY.

SA	A	D	SD	NA	
	●				Content is accurate.
	●				Content has educational value.
		●			Content is free of stereotypes.
	●				Purpose of package is well defined.
●	●				Package achieves defined purpose.
	●				Content presentation is clear and logical.
	●				Difficulty level is appropriate to audience.
●					Graphics/sound/color are used appropriately.
●					Use of package is motivational.
		●			Student creativity is effectively stimulated.
	●				Feedback is effectively employed.

SA	A	D	SD	NA	
	●				Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
	●				Learning can be generalized.
	●				User support materials are comprehensive.
		●			User support materials are effective.
	●				Information displays are effective.
	●				Users can operate easily and independently.
	●				Teachers can employ package easily.
●					Computer capabilities are used appropriately.
	●				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 3, Technical Characteristics - 4.

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Verb Viper, continued

POTENTIAL USES: This package can be used in
language arts classes with small groups (pairs) or
individuals for drill and practice on subject/verb
agreement.

MAJOR STRENGTHS: This program provides for
individualization as follows: 1) nine different
playing speeds; 2) game content; 3) difficulty of
content — reading and vocabulary levels range
from grade 1 to grade 4; 4) time per game — 1 to
5 minutes; 5) optional use of either paddle or
keyboard control; and 6) with or without sound
effects. The game is motivating and encourages
active use. The documentation is thorough,
although somewhat overdone.

MAJOR WEAKNESSES: Content — The package
includes some non-words as seemingly valid
choices (i.e., headed, layed). Presentation — In
many instances, the subject and verb are given in
isolation rather than in the context of a complete
sentence. Graphics and Sound — The margin of
visual error is small causing the student to miss
and be penalized for failure to hit the space bar
in time. Sound is almost essential to the game
and can be a classroom problem. Student
Feedback — The program does not give adequate
feedback to the students or teacher. Feedback
given is only a tally of "hits" and "misses", and
ways and means of remediating errors are
lacking. In some versions of the game, not hitting
the space bar at all gives more hits than misses!
(i.e., user wins by doing nothing). The program
records 81 hits and 11 misses as a higher score
than 81 hits and 2 misses. Supplementary
Materials — The student support materials are
workbook type. Student Use — The student will
need explanation and demonstration before
playing the game.

OTHER COMMENTS: This program appears to be
a good home substitute for or complement to the
recreational arcade-type games.

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Wordman

PRODUCER: DLM, Inc.
One DLM Park
Allen, Texas 75002

EVALUATION COMPLETED: June 1983 by the staff and constituents of Montgomery County Public Schools, Maryland.

COST: $44.00

ABILITY LEVEL: Grades 1 through 6
SUBJECT: Language Arts
TOPIC: Vocabulary
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II+/IIe, disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft, DOS 3.2 or 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In supplementary materials — instructional, objectives, sample program output, program operating instructions, teacher's information, student's instructions, student worksheets, and follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To provide drill and practice in basic phonetic patterns associated with short and long vowel sounds in a word.

CONTENT AND STRUCTURE: The game screen is a series of alternating rectangular tracks and rows. The tracks are passageways for a moving initial consonant that can be used as the beginning letter of words formed with the groups of letters in the rows. The groups of letters are placed in windows in the rows. As the letter moves past a group of letters, the player must determine if it would form a word if added as the initial consonant. If so, the player fires the space bar, forms the word, and a hit will be recorded. If it will not form a word, the player allows the letter to pass by the window, the letters are crossed out, and a hit is recorded. Misses will be recorded if the player passes by a window that would form a word or fires at a window whose letters would not make a word. The traveling letter changes often. The entire maze must be completed correctly before the expanding border of orange reaches the track where the letter is traveling. If this happens, the maze will dissolve and the game will reset. If this occurs three times during a game, the game is immediately over.

ESTIMATED STUDENT TIME REQUIRED: 10-15 minutes per day, several times a week

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
			•		Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
•					Use of package is motivational.
			•		Student creativity is effectively stimulated.
		•			Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
		•			Instruction integrates with prior learning.
		•			Learning can be generalized.
	•				User support materials are comprehensive.
		•			User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
•					Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A–Agree D–Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content – 4, Instructional Characteristics - 3, Technical Characteristics - 4.

Wordman, continued

POTENTIAL USES: This package is good for
practicing phonetic patterns with small groups or
individuals in language arts or reading classes.
Practice with speedy word recognition in a game
setting is more appropriate for home and
recreation than the classroom and instruction.

MAJOR STRENGTHS: The difficulty level, speed
and time can be controlled by the teacher.
Colorful graphics, fast action, and Pac-Man
arcade game format are highly motivational and a
fun approach to learning. Accompanying manual
gives an overview, purpose and goals of the
program as well as providing persons working in
the school setting with information and directions
for using the program with students. It contains
21 worksheets, student record sheet, progress
charts, and a "Strategies for Improvement" log'
which can be easily duplicated. No typing skills
are required to use this program since it can be
played using either game paddles, joysticks or the
keyboard.

MAJOR WEAKNESSES: Content - The package
contains some little used words, e.g., mace, gape,
sage, keg. The meaning of the words are
immaterial to the user's success in the game.
There is no provision for customizing the program
by adding your own words to the problem list.
Graphics — the small size of the character set
makes it difficult to distinguish between certain
letters, e.g., G/C, D/O, W/H. Feedback — The
major weakness of the program is that it gives
poor feedback to students and teachers. The
program should let the user know what
combinations were missed and what practice is
needed, instead of just giving a score of hits and
misses. Support materials — The student support
materials are workbook type and are not very
creative. Student use — The student will need an
explanation and demonstration before playing the
game. The program can be very frustrating when
the circling letter cannot be used to complete a
word with any of the remaining letters. Success
depends on a high level of word-recognition skills.

OTHER COMMENTS: An excellent word game
for the home to compete with the arcade-type
recreational games.

Word Invasion

VERSION: Apple

PRODUCER: DLM, Inc.
One DLM Park
Allen, Texas 75002

EVALUATION COMPLETED: September 1983 by the staff and constituents of Montgomery County School District, Maryland.

COST: $44.00

ABILITY LEVEL: Grades 5 through 8
SUBJECT: Language Arts
TOPIC: Vocabulary
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+/IIe, single disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft, DOS 3.2 or 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In supplementary materials — instructional objectives, sample program output, program operating instructions, teacher's information, student's instructions, student worksheets, and follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To provide drill and practice in recognizing the parts of speech.

INSTRUCTIONAL PREREQUISITES: (INFERRED) The student must have prior instruction in recognizing the parts of speech.

CONTENT AND STRUCTURE: Word Invasion provides the player with practice in identifying words which represent the six major parts of speech: nouns, pronouns, verbs, adverbs, adjectives, and prepositions. A friendly alien, A.O. (Alien Octopus) appears at the bottom of the screen. She protects her underwater territory from a screen full of invading words with a magic ring. The magic ring can be moved from arm to arm by the player to aim and fire at approaching words. The player must match the appropriate word with the part of speech that appears below A.O. If a word reaches her arm before it is fired down, she must lower four arms to recover before the game continues. If this happens three times during play, the game is immediately over.

ESTIMATED STUDENT TIME REQUIRED: 10-15 minutes per day

EVALUATION SUMMARY

SA	A	D	SD	NA	
	●				Content is accurate.
●					Content has educational value.
●					Content is free of stereotypes.
	●				Purpose of package is well defined.
		●			Package achieves defined purpose.
		●			Content presentation is clear and logical.
●					Difficulty level is appropriate to audience.
●					Graphics/sound/color are used appropriately.
●					Use of package is motivational.
			●		Student creativity is effectively stimulated.
	●				Feedback is effectively employed.

SA	A	D	SD	NA	
	●				Learner controls rate and sequence.
		●			Instruction integrates with prior learning.
		●			Learning can be generalized.
	●				User support materials are comprehensive.
		●			User support materials are effective.
	●				Information displays are effective.
	●				Users can operate easily and independently.
	●				Teachers can employ package easily.
●					Computer capabilities are used appropriately.
	●				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 3,
Technical Characteristics - 4.

Word Invasion, continued

POTENTIAL USES: This program is good for use
in Language Arts to provide drill and practice for
small groups or individuals with the major, parts
of speech.

MAJOR STRENGTHS: The teacher can control
the level of difficulty, parts of speech to be used,
and speed of the program. The game is very
motivating and provides active participation on
the part of the player. The program content is
accurate. It is reliable and easy for the students
to use. This is a good use of the computer to
provide drill and practice with the major parts of
speech.

MAJOR WEAKNESSES: The package teaches the
parts of speech out of context; this is
instructionally unsound. The major weakness of
this program is that it gives poor feedback to the
student and teacher. There should be some way
to find out which parts of speech were
consistently missed and need practice instead of
just the number of hits and misses. The student
support materials are workbook type only. The
student will need an explanation and
demonstration before playing the game.

OTHER COMMENTS: This package does not
reflect the approach to language learning
promoted by the Montgomery County Public
Schools Revised Curriculum in Reading/Language
Arts (evaluating agency).

Career Scan IV

VERSION: 1982

PRODUCER: , National Eduational Software
    1879 Locust Drive, Dept. CPR
    Verona, WI .53593

EVALUATION COMPLETED: June 1983 by the
staff and constituents of Region IV ISC, Houston,
Texas.

COST: $169.00

ABILITY LEVEL: Grades 6 through postsecondary
SUBJECT: Vocational Education
TOPIC: Career education, Career guidance
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II+, one or two
disk drives, monitor, printer (optional)
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Assessment
INSTRUCTIONAL-TECHNIQUES: Information
retrieval, career guidance

DOCUMENTATION AVAILABLE: In program —
program operating instructions,
resource/reference information, student's
instructions, textbook correlation (career
information), follow-up activities. In
supplementary materials — suggested
grade/ability level(s), instructional objectives,
prerequisite skills or activities, program operating
instructions, teacher's information, textbook

correlation (career information), follow-up
activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To
help the user find an occupation related to
personal interests, values and aspirations; to
motivate users to seek additional information
about such occupations; to motivate users to
reexamine their interests and to see how these
interests might affect occupations; to encourage
users to seek career guidance from professionals.

INSTRUCTIONAL PREREQUISITES: (STATED)
Sixth grade reading level (interest level — sixth
grade through college)

CONTENT AND STRUCTURE: In preparation
for the occupational search, the user first
answers questions concerning personal interests
and then rates the importance of these answers.
These answers are then matched to occupational
groups by the computer which produces a list.
The user next chooses one or more occupational
groups from the list and occupational title lists
are produced for each occupational group. The
user then has the option to request job
descriptions for each occupational title listed.
Following this, various alternatives exist such as
listing interest choices or occupations or
conducting another search. Reference
information on the occupational titles located in

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate. '
	•				Content has educational value.
	•				Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
		•			Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
		•			Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or
recommend use of this package with little or no
change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 4,
Technical Characteristics - 4.

Career Scan IV, continued -

the search may also be displayed. At the
completion of a search, the user is advised to
seek assistance from a counselor to better
understand the results. The instructions for each
step of the search appear on the screen.

ESTIMATED STUDENT TIME REQUIRED: 30-45
minutes needed for each session.

POTENTIAL USES: The program would best be
used by a teacher who was willing to integrate
career guidance into his/her curriculum or by the
counselor on an individual basis.

MAJOR STRENGTHS: The instructions are clear
and easy to follow. As the program progresses,
the user is allowed to revise choices. The
program achieves the stated objectives. This
program really causes students to think about
personal values and gives them an opportunity to
prioritize choices.

MAJOR WEAKNESSES: One evaluator could not
get this program to work with the Epson MX80FT
printer; no instructions on how to interface with
various printers were given. Portions of the job
descriptions become repetitive thus probably
increasing the chance for boredom.

OTHER COMMENTS: After the user answers a
question, something similar to "Your answer
was _____ . Is this correct Y/N?" appears on
the screen. While verifying correct responses
may be desirable for some students, it becomes
bothersome for others.

Computer Literacy: Introduction (PLATO)

VERSION: 1983

PRODUCER: Control Data Publishing Co.
P.O. Box 261127
San Diego, CA 92126

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ISC, Houston, Texas.

COST: $60.00

ABILITY LEVEL: Grade 6 through postsecondary
SUBJECT: Computer Science
TOPIC: Computer Literacy
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, disk drive, monitor. Also available for: Atari 800, TI 99/4A, and IBM-PC.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Tutorial

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisite skills or activities, program operating instructions, teacher's information, resource/reference information, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) This package is designed to provide students with basic information about computers in our society by providing information on the history and uses of computers and on their impact on business and society.

INSTRUCTIONAL PREREQUISITES: (STATED) No prior knowledge of computers is necessary. The package is designed for junior and senior high school students.[1]

CONTENT AND STRUCTURE: This educational software package contains six sections which include instructional text, animated examples, and interactive activities. The support manual provides a supplement to the computer-based activity through a description of the objectives and features of each section, teaching strategies, and student materials. Objectives are clearly stated for each section. The user has control over the progression of lessons and options available within the program. The student is first introduced to the lesson then guided through the activities. Each lesson builds on the previous lesson. Feedback is immediate and appropriate for the intended audience. The computer keeps track of the lessons completed.

ESTIMATED STUDENT TIME REQUIRED: 15-30 minutes computer time per section. For support activites 30-45 minutes could be used as a

EVALUATION SUMMARY

SA	A	D	SD	NA	
●					Content is accurate.
●					Content has educational value.
●					Content is free of stereotypes.
●					Purpose of package is well defined.
●					Package achieves defined purpose.
●					Content presentation is clear and logical.
●					Difficulty level is appropriate to audience.
●					Graphics/sound/color are used appropriately.
●					Use of package is motivational.
	●				Student creativity is effectively stimulated.
	●				Feedback is effectively employed.

SA	A	D	SD	NA	
	●				Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
●					Learning can be generalized.
●					User support materials are comprehensive.
●					User support materials are effective.
●					Information displays are effective.
●					Users can operate easily and independently.
●					Teachers can employ package easily.
●					Computer capabilities are used appropriately.
●					Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 1 (Low) to 5 (High).
Content - 5, Instructional Characteristics - 5, Technical Characteristics - 5.

Computer Literacy: Introduction (PLATO),
continued

follow-up for each section, depending on the
teacher.

POTENTIAL USES: This package could be used
effectively for independent learning or for a
small group activity. The lessons are applicable
in any course where students need to learn about
computers. In addition, the package is ideally
suited as an introduction to computers for
teachers or administrators. This program also
might be good for older special education
learning disabled students with additional teacher
preparation.

MAJOR STRENGTHS: The objectives are clearly
defined. The instructions appear to students on
the screen and are clearly stated. Immediate and
appropriate feedback is used. Animated graphics
and visual stimulation are effectively employed in
this package. The information is presented in a
clear and logical fashion.

MAJOR WEAKNESSES: None cited.

Decimals Practice (PLATO)

PRODUCER: Control Data Publishing Co.
P.O. Box 261127
San Diego, CA 92126

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ISC, Houston, Texas.

COST: $60.00

ABILITY LEVEL: Grades 4 through 9
SUBJECT: Mathematics
TOPIC: Arithmetic, Decimals
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, disk drive, TV or monitor. Also available for: Atari 800, TI 99/4A, and IBM-PC.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Enrichment, standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, student's instructions. In supplementary materials — instructional objectives, prerequisite skills or activities, program operating instructions, teacher's information, students instructions, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To help students improve their decimal differentiation and identification skills. To provide practice in visually determining decimal fractions. To help familiarize students with decimal fraction concepts.

INSTRUCTIONAL PREREQUISITES: (STATED) Students need to have basic decimal comprehension, the ability to follow the instructions in the lesson and the knowledge of using the miercomputer.

CONTENT AND STRUCTURE: The package contains one disk, a back-up disk and a manual. The disk contains one game which has two parts and a review lesson called "Check Up." Students can choose to play the "Darts Game" or to take the "Darts Check Up." Levels exist within each part of the game. The format is an animated dart game designed to motivate student practice in identifying decimal fractions of progressive levels of difficulty in the tenths and hundredths place. A student breaks balloons on a vertical number line by estimating the decimal locations of balloons between given numbers.

ESTIMATED STUDENT TIME REQUIRED: 15-30 minutes per day

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
•					Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
•					Users can operate easily and independently.
•					Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would not use or recommend this package. (Note reasons under Weaknesses).

Summary: Scale from 1 (Low) to 5 (High).
Content - 3, Instructional Characteristics - 3, Technical Characteristics - 2.

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Decimals Practice, continued

POTENTIAL USES: This game may be utilized by students to practice writing decimal numbers, estimating decimal values and identifying decimal intervals along a number line, once they have been exposed to these concepts in a regular classroom setting.

MAJOR STRENGTHS: The programs make effective use of color graphics and sound. They provide immediate feedback for student responses, and strengthen place value concepts. Due to the structure of the programs, incorrect responses become "hints" for determining correct responses. While help is given upon request, a built-in system prevents a student from advancing to the next level if he/she asks for help. This feature prevents floundering students from becoming hopelessly "stuck" at a certain point and then moving haphazardly through higher levels within the program.

MAJOR WEAKNESSES: It is possible to complete the game successfully by guessing. Too many concepts are presented at once. Experiencing relative values in the tenths and hundredths place in 30 minutes is confusing to average and slow learners. It is possible to be rewarded without being accurate. Being off by 0.1 may result in a balloon breaking and the game advancing. Only one lesson format is utilized and may tend to rather quickly become boring. When a dart is sent to a location very close to a previously identified location, the numerals are written over the old numerals, making it difficult to read the location.

OTHER COMMENTS: The game format could be improved by placing the number line in a horizontal position near the top of the frame. It is easier to estimate decimal parts on a horizontal number line.

LeVocabulaire Francais

VERSION: Apple

PRODUCER: Island Software
             Box 300
             Lake Grove, NY 11755

EVALUATION COMPLETED: May, 1983 by the staff and constituents of Connecticut Department of Education, Hartford, Connecticut, and Multnomah County ESD, Portland, Oregon.

COST: $25.00

ABILITY LEVEL: Grades 7 through 12
SUBJECT: Foreign Languages
TOPIC: French
MEDIUM OF TRANSFER: 5-1/4 in. flexible disk
REQUIRED HARDWARE: 48K Apple II, single disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice

DOCUMENTATION AVAILABLE: In program — program operating instruction and student's instructions. In supplementary materials — instructional objectives, program operating instructions, and teacher's information.

INSTRUCTIONAL OBJECTIVES: (STATED) To provide drill and practice in translating between English and French words.

INSTRUCTIONAL PREREQUISITES: (INFERRED) The student must have prior instruction on the French words in the list used in the program.

CONTENT AND STRUCTURE: This package contains four drill and practice programs on translating between English and French. Program 1 covers approximately 200 nouns, program 2 covers approximately 175 verbs, and program 3 covers approximately 75 numbers, colors and other useful words. Program 4 allows the teacher to create exercises. All of the programs employ large size lower-case alphabet for the French words and standard size upper-case alphabet for the English words. Accent marks (cedilla, acute, grave, etc.) are also used and can be typed from the keyboard.

ESTIMATED STUDENT TIME REQUIRED: Fifteen to twenty minutes per sitting; at least four sittings.

POTENTIAL USES: This package is appropriate for use with individual students or small groups of students for drill and practice. It could also be

EVALUATION SUMMARY

SA	A	D	SD	NA	
		•			Content is accurate.
		•			Content has educational value.
•			•		Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
		•			Instruction integrates with prior learning.
		•			Learning can be generalized.
		•			User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
		•			Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA- Strongly Agree A- Agree D- Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package only if certain changes were made.

Summary: Scale from 1 (Low) to 5 (High).
Content - 2, Instructional Characteristics - 2, Technical Characteristics - 3.

LeVocabulaire Francais, continued

used to increase writing vocabulary.

MAJOR STRENGTHS: Accents are included as
part of the spelling of the foreign words. This is
not true in some of the other software in
existence. Words are not counted as correct
unless the accents are included when responding
in the foreign language.

MAJOR WEAKNESSES: The program does not
accept synonyms or acceptable variations in
language. The "right answer" is so narrowly
defined that alternatives which should be ·
acceptable are called "wrong." The list of
vocabulary items displayed does not include
accent marks. Although it is so indicated in the
display, that does not make it correct. Although
the program selects the words randomly, some
words occur more often than others.

OTHER COMMENTS: Translation is a poor ·
language learning activity. It is a skill which
should be taught for specific purposes at very
advanced levels only. This material is designed
for less advanced students.

Biology: The Cell

PRODUCER: Encyclopedia Britannica
                    Educational Corporation
                    425 North Michigan Avenue
                    Chicago, IL 60611

EVALUATION COMPLETED: June 1983 by the
staff and constituents of Linn-Benton ESD,
Albany, Oregon.

COST: $125.00

ABILITY LEVEL: Grades 10 though 12
SUBJECT: Sciences
TOPIC: Biology
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II, 48K, single
disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation,
standard instruction, assessment
INSTRUCTIONAL TECHNIQUES: Drill and
practice, tutorial

DOCUMENTATION AVAILABLE: In program —
post-test and student's instructions. In
supplementary materials — instructional
objectives, program operating instructions,
teacher's information and student worksheets.

INSTRUCTIONAL OBJECTIVES: (STATED) To
develop skills in the areas of cell biology, cell

organization, the structure and function of
organelles, macromolecules of the cell, and
viruses.

INSTRUCTIONAL PREREQUISITES:
(INFERRED) Lessons are presented sequentially
and completion of one is the prerequisite for the
next.

CONTENT AND STRUCTURE: Two disks. Disk
1 is the tutorial. It is menu-directed and
includes: a simple explanation of cell theory; a
description of viruses that includes illustration of
the lytic and lysogenic cycles with moving
graphics; a discussion of cell size and the
relationship of volume to surface area; an
introduction to the eucaryotic cell, both plant
and animal, and to the procaryotic cell; and a
detailed description of organelles found in these
cells, illustrated by a large cell diagram with a
moving index as a menu. Disk 2 is the glossary
and drill. It is divided into two sections: a
glossary that provides definitions and a review of
terms used in the tutorial disk; and three
menu-directed, self-test series comprised of
multiple-choice, fill-in, and column-matching
exercises. There are two distinct scoring
systems: instant score where the student is
immediately told whether an answer is right or
wrong, and total scores where, as in a classroom
quiz, the cumulative score is given after the quiz

EVALUATION SUMMARY

SA	A	D	SD	NA	
●					Content is accurate.
●					Content has educational value.
	●				Content is free of stereotypes.
	●				Purpose of package is well defined.
	●				Package achieves defined purpose.
	●				Content presentation is clear and logical.
	●				Difficulty level is appropriate to audience.
	●				Graphics/sound/color are used appropriately.
	●				Use of package is motivational.
		●			Student creativity is effectively stimulated.
	●				Feedback is effectively employed.

SA	A	D	SD	NA	
●					Learner controls rate and sequence.
		●			Instruction integrates with prior learning.
		●			Learning can be generalized.
			●		User support materials are comprehensive.
			●		User support materials are effective.
●					Information displays are effective.
●					Users can operate easily and independently.
●					Teachers can employ package easily.
●					Computer capabilities are used appropriately.
●					Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or
recommend use of this package with little or no
change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4; Instructional Characteristics - 3;
Technical Characteristics - 4.

Biology: The Cell, continued

is completed. In all three self-test series and in both scoring methods, students may request correct answers.

ESTIMATED STUDENT TIME REQUIRED: 30 to 60 minutes per diskette to finish the entire tutorial, however, the materials can be broken down into shorter (10 minutes +/-) sections by the use of the menu.

POTENTIAL USES: This package is appropriate for use with individual or small groups of students for review of, or introduction to, topics relating to cells.

MAJOR STRENGTHS: The evaluators judged the content and graphical diagrams to be highly accurate. The information presented in the tutorial explained the process well and used the appropriate sequence of concepts. The quizzes covered the material well and provided the user with options which include a variety of question types. The use of menus provides the flexibility for the package to be used in a variety of situations. A glossary is included which familiarizes the student with the terms used in the tutorial.

MAJOR WEAKNESSES: The evaluators indicated the user support material was "minimal". There is no pre-test, follow-up activities, textbook correlations, or bibliography. Some sections of the program (Virus) ran very slowly on the computer.

OTHER COMMENTS: The package could be strengthened by adding more user support materials, highlighting key vocabulary in the text of the tutorial, and including a quiz at the end of each section on the menu.

Physics: Elementary Mechanics (PLATO)

Version: Copyright 1983

PRODUCER: Control Data Publishing Co.
              P.O. Box 261127
              San Diego, CA 92126

EVALUATION COMPLETED: June 1983 by the staff and constituents of North Clackamas School District, Milwaukie, Oregon.

COST: $70.00

ABILITY LEVEL: High School
SUBJECT: Science
TOPIC: Physics
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II+, 48K, single disk drive, monitor. Also available for: Atari 800, TI 99/4A, and IBM-PC.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment, assessment
INSTRUCTIONAL TECHNIQUES: Tutorial, simulation, problem solving

DOCUMENTATION AVAILABLE: In program — sample program output, program operating instructions, and student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisite skills or activities, teacher's information, student's instructions, student worksheets, and follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To provide practice in analyzing and evaluating a problem in elementary mechanics and in identifying the elements necessary to arrive at a correct solution.

INSTRUCTIONAL PREREQUISITES: (STATED) Prior instruction on the principles of Newton's Laws of Motion, Newton's Laws of Universal Gravitation, Conservation of Linear and Angular Momentum, Conservation of Mechanical Energy, Two-Dimensional Kinetics with Constant Acceleration, Kinetics and Dynamics of Circular Motion, Kinetics and Dynamics of Mass-Spring Systems, Friction, and Torque.

CONTENT AND STRUCTURE: The package includes a manual and two disks with back-up containing the Phizquiz computer-based activities. The student is presented with an animated example of a physical situation. A question about the situation is then asked. The student must determine what information is necessary to answer the question and what concepts should be used to arrive at the correct answer. A fixed amount of "money" is available to buy the necessary information. The less help a student needs before correctly answering the question, the less money he or she will spend. A calculator mode is also available to the student.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•				•	Content is accurate.
•					Content has educational value.
•			•		Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
•		•			Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
•		•			Use of package is motivational.
	•				Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
		•			Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
•					Information displays are effective.
•					Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High). Content - 5; Instructional Characteristics - 4; Technical Characteristics - 4.

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

Physics: Elementary Mechanics (PLATO), continued

ESTIMATED STUDENT TIME REQUIRED: It would take a student three to six hours to complete the package.

POTENTIAL USES: The package could be used by individual students as a problem-solving investigation in the physics of elementary mechanics. It provides an analytic exercise for students.

MAJOR STRENGTHS: The graphics are superb and the program is well documented. Transition from graphics page to another page is easy. Externally the documentation is good, however, it is quite concise. Internally the documentation clearly defines objectives.

MAJOR WEAKNESSES: Although the program gives hints to the solution, it should give students the method of solution if the student becomes completely stumped. At times a dual disk drive would be needed (although by switching disks this can be avoided). Program is disk dependent and, therefore, a separate set of disks would be needed for each separate activity.

OTHER COMMENTS: A nice package which could be used effectively with proper introduction and set up by the instructor. I would rank this as very challenging for high school students.

Tank Tactics

VERSION: Copyright 1981

PRODUCER: Data Command, A Division of
Imperial International Education
P.O. Box 548
Kankakee, IL 60901

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV, ISC, Houston, Texas.

COST: $197.50

ABILITY LEVEL: Grades 3 through 12
SUBJECT: Language Arts
TOPIC: Reading, Vocabulary
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II or Apple II+, one disk drive, color monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial, game

DOCUMENTATION AVAILABLE: In program — sample program output, program operating instructions, teacher's information, student's instructions. In supplementary materials — instructional objectives, sample program output, program operating instructions, teacher's information, student's instructions.

INSTRUCTIONAL OBJECTIVES: (STATED)
Improves word recognition ability by working with contractions, suffixes, prefixes, base words, homonyms and plurals.

INSTRUCTIONAL PREREQUISITES:
(INFERRED) Users of the package should have received instruction in the language arts skills covered.

CONTENT AND STRUCTURE: The package consists of seven diskettes and an accompanying manual. The diskettes cover contractions, suffixes, prefixes, base words, homonyms and plurals in a game format for drill and practice. Diskette 1 presents three rounds of four games each and the other six diskettes present three rounds of six games each. A "teacher feature" shows the student his/her record of each game, listing the exact words missed. A class record keeper is located in the back of the manual. The manual provides a summary for each program, describes how each skill is taught and shows the teacher which words or sentences are used.

ESTIMATED STUDENT TIME REQUIRED:
Approximately 10 minutes per day

POTENTIAL USES: The grade level is not stated, but all words used are listed in the accompanying

EVALUATION SUMMARY

SA	A	D	SD	NA	
●					Content is accurate.
●					Content has educational value.
●	●				Content is free of stereotypes.
	●				Purpose of package is well defined.
	●				Package achieves defined purpose.
	●				Content presentation is clear and logical.
●					Difficulty level is appropriate to audience.
●					Graphics/sound/color are used appropriately.
●					Use of package is motivational.
		●			Student creativity is effectively stimulated.
		●			Feedback is effectively employed.

SA	A	D	SD	NA	
	●				Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
	●				Learning can be generalized.
	●	●			User support materials are comprehensive.
●					User support materials are effective.
	●				Information displays are effective.
●					Users can operate easily and independently.
●					Teachers can employ package easily.
		●			Computer capabilities are used appropriately.
●					Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 5, Instructional Characteristics - 5, Technical Characteristics - 4.

Tank Tactics, continued

documentation so the teacher can determine appropriate use. The package could be used on both elementary and secondary levels for drill and practice in language arts.

MAJOR STRENGTHS: The package is user friendly and motivational, utilizing appealing animated graphics in a game format. The program is self-directing and self-correcting, as well as easy to follow. The teacher needs virtually no preparation to get students started. The teacher can see a summary of student performance and is provided with a summary of each program in the manual. Each program begins with basic instruction in the specific word skill to be used. This is good for review of concepts.

MAJOR WEAKNESSES: The program does not branch automatically to different levels of difficulty. There is not much variety in the feedback responses. The game format is repetitive and there is no rate change from game to game. On disk 4 (Prefixes) the game format does not change to allow the user to look at prefix and then base word. On disk 6 (Homonyms), when an answer is incorrect, a display of matching homonyms might reinforce the concept.

Big Door Deal

VERSION: 1981

PRODUCER: Data Command,
Division of Imperial
International Education
P.O. Box 548
Kankakee, IL 60901

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ISC, Houston, Texas.

COST: $113.75

ABILITY LEVEL: Grades 6 through 12
SUBJECT: Language Arts
TOPIC: Reading
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II or Apple II+, disk drive, color monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Enrichment, standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial, game

DOCUMENTATION AVAILABLE: In program — sample program output, program operating instructions, teacher's information, student's instructions. In supplementary materials — instructional objectives, sample program output, program operating instructions, teacher's information, student's instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED)
To improve reading skills by using context clues to determine word meanings; by using figurative language to increase comprehension; by developing critical thinking through analogies; by organizing information through sequencing.

INSTRUCTIONAL PREREQUISITES:
(INFERRED) Users of this package should have received instruction in the language arts skills covered.

CONTENT AND STRUCTURE: This package consists of four diskettes and an accompanying manual. The diskettes cover context clues, figurative language, analogies and sequencing events. Diskettes 1, 3, 4 present three rounds of games, each one increasing in difficulty. Diskette 2 also presents three rounds, but there is no indication that the difficulty level is increased. A "teacher feature" shows the number of correct and incorrect student responses. A class record keeper is located in the back of the manual. The manual promotes a summary of each program.

ESTIMATED STUDENT TIME REQUIRED:
Approximately 15 minutes per day

POTENTIAL USES: The grade level is not specifically stated, but the sentences and words

EVALUATION SUMMARY

SA	A	D	SD	NA	
●					Content is accurate.
●					Content has educational value.
●					Content is free of stereotypes.
	●				Purpose of package is well defined.
	●				Package achieves defined purpose.
	●				Content presentation is clear and logical.
	●				Difficulty level is appropriate to audience.
	●				Graphics/sound/color are used appropriately.
	●				Use of package is motivational.
		●			Student creativity is effectively stimulated.
		●			Feedback is effectively employed.

SA	A	D	SD	NA	
	●				Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
	●				Learning can be generalized.
	●				User support materials are comprehensive.
●					User support materials are effective.
	●				Information displays are effective.
●					Users can operate easily and independently.
●					Teachers can employ package easily.
	●				Computer capabilities are used appropriately.
●					Program is reliable in normal use.

SA – Strongly Agree A–Agree D–Disagree SD – Strongly Disagree NA – Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content – 5, Instructional Characteristics – 4,
Technical Characteristics – 4.

Big Door Deal, continued

used are listed in the accompanying
documentation. Could be effectively used at
upper levels for drill and practice in language arts.

MAJOR STRENGTHS: This package is user
friendly and easy to follow. The game format is
motivational. The teacher needs virtually no
preparation to get students started. The teachers
guide gives a summary of each program, and the
record keeping feature allows the teacher to see
student performance scores.

MAJOR WEAKNESSES: The program does not
branch automatically to different levels of
difficulty. There is no rate change from game to
game. There is no variety in correct responses.
Thus, it is sometimes fun to get wrong answers!
The teacher only sees the number of wrong and
right answers, but does not see what the student
missed.

This evaluation is based on the evaluations of three or more reviewer
who are representative of potential users of the courseware package.

Permission to reproduce this document is hereby granted.

Fractions Practice (PLATO)

VERSION: 1983

PRODUCER: Control Data Publishing Co.
P.O. Box 261127
San Diego, CA 92126

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ISC, Houston, Texas.

COST: $60.00

ABILITY LEVEL: Grades 4 through 9
SUBJECT: Mathematics
TOPIC: Arithmetic, Fractions
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, disk drive, TV or monitor. Also available for: Atari 800, TI 99/4A, and IBM-PC.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, student's instructions. In supplementary materials — instructional objectives, prerequisite skills or activities, program operating instructions, teacher's information, student's instructions, student worksheets.

INSTRUCTIONAL OBJECTIVES: (STATED) To help students improve their fractional differentiation and identification skills. To provide practice in visually determining fractional intervals. To help familiarize students with a variety of fractional concepts.

INSTRUCTIONAL PREREQUISITES: (STATED) Students must have a comprehension of basic fractions. They must also be able to understand the instructions that appear in the lessons and must know how to use the microcomputer.

CONTENT AND STRUCTURE: The student has the option to play the Darts game or to take the Darts Check-up. At the beginning of the game, a vertical number line apears with balloons "tied" to the line at random locations. The location of each ballon can be identified by a fraction, decimal, or whole number. The student enters a value to "throw a dart" at one of the balloons. If the dart is "thrown" to the correct location, the balloon is "popped."

ESTIMATED STUDENT TIME REQUIRED: 15-30 minutes per day

POTENTIAL USES: The game may be utilized by students in order to practice writing fractions, practice estimating fractions and identifying

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
	•				Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
•					Use of package is motivational.
	•				Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
•					Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 3,
Technical Characteristics - 3.

Fractions Practice (PLATO), continued

fractional intervals along a number line, once
they have been exposed to these concepts in a
regular classroom setting.

MAJOR STRENGTHS: Students are provided with
immediate feedback and the incorrect responses
can be "hints" in determining the correct
responses. The program makes an effective use
of graphics and sound. The students are moved
up or down in levels of difficulty based on the
number of correct and incorrect responses.

MAJOR WEAKNESSES: The software package is
very limited in possible uses. Only one lesson
format is utilized and may tend to get boring
rather quickly. Also, use of horizontal number
line would provide a variety of concept
development possibilities. When a dart is sent to
a location that is very close to a previously
identified location, the numerals are written over
the old numerals and make it diffcult to read the
locations.

OTHER COMMENTS: The game format could
provide a nice addition to be included within a
more comprehensive package on fraction
concepts. Otherwise, the package has a very
limited instructional use.

German Vocabulary Builder (PLATO)

VERSION: 1983

PRODUCER: Control Data Publishing Co.
P.O. Box 261127
San Diego, CA 92126

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ISC, Houston, Texas.

COST: $60.00

ABILITY LEVEL: Grades 8 through 12
SUBJECT: Languages
TOPIC: German
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, disk drive, monitor. Also available for: Atari 800, TI 99/4A, and IBM-PC.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, Assessment
INSTRUCTIONAL TECHNIQUES: Drill and practice, Game

DOCUMENTATION AVAILABLE: In program — program operating instructions, student's instructions. In supplementary materials — instructional objectives, prerequisite skills and activities, program operating instructions, teacher's information, resource/reference information, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) This package is intended to provide drill and practice in recognizing and understanding a basic German language vocabulary.

INSTRUCTIONAL PREREQUISITES: (STATED) A basic introductory exposure to German and a review of vocabulary lists would be helpful before using this program.

CONTENT AND STRUCTURE: There are two kinds of drills which can be presented in one of three presentation modes: English to German, German to English, or combination. One drill is a version of hangman where the student must guess the letters in a computer–selected word. The word is given in one language and the student must guess the word in the other language. The other drill is a pyramid game in which the student must correctly answer 12 multiple choice questions. Questions are assigned an increasing monetary value. Detailed instructions as well as constant feedback are provided. Students may view the chosen word lists before running a lesson. Ten word lists are available. A support manual supplements the computer–based activity. Sample worksheets and recordkeeping sheets are provided.

ESTIMATED STUDENT TIME REQUIRED: 10-20 minutes per word list

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
	•				Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
			•		Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
•					Instruction integrates with prior learning.
	•				Learning can be generalized.
•					User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
•					Users can operate easily and independently.
•					Teachers can employ package easily.
•					Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 4,
Technical Characteristics - 4.

German Vocabulary Builder (PLATO), continued

POTENTIAL USES: Students can augment their
classroom lessons through the use of this
package. This drill in visual comprehension will
effectively complement an audio German lab.
This package could be used primarily as an
individual or small group exercise. It could be
used as an assessment tool in addition to being
used for drill and practice.

MAJOR STRENGTHS: The program is easy to
use and the sound can be turned off by the user.
The manual contains worksheets and
recordkeeping sheets. The student can review
the word list before the game begins. In the
hangman exercise, incorrect words are repeated
after the twelve words have been given. In the
pyramid exercise, translation for all four possible
answers are given instead of just telling the
student whether he is right or wrong. The
program has a closing section following the
completion of the game.

MAJOR WEAKNESSES: Lack of pronunciation.
An auditory component would make the program
more effective. The user must keep track of his
own number of correct and incorrect responses in
both games. The only time the score is displayed
is when all items are correct (100%). Otherwise
just question value and total earning in pyramid
game are shown. Program would be more
effective with visual of correct and incorrect
responses.

OTHER COMMENTS: The relation between
certain special letters and the number keys was
not found in the documentation. Information
displayed on the screen indicated the word
"Zahlen" means to count. The documentation
indicates it means to pay. To count isn't a part of
the word list in the manual.

Pik-Pek-Put

VERSION: 1981

PRODUCER: Data Command, Division of
           Imperial International Education
           P.O. Box 548
           Kankakee, IL 60901

EVALUATION COMPLETED: June 1983 by the staff and
constituents of Region IV ISC, Houston, Texas.

COST: $227.50

ABILITY LEVEL: Grades 5 through 8
SUBJECT: Language Arts
TOPIC: Reading, Vocabulary
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II or Apple II+, one disk
drive, color monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice,
tutorial, game

DOCUMENTATION AVAILABLE: In program — sample
program output, program operating instructions, teacher's
information, student's instructions. In supplementary
materials — instructional objectives, sample program
output, program operating instructions, teacher's
information, student's instructions.

INSTRUCTIONAL OBJECTIVES: (STATED) To develop
skills in the use of suffixes, contractions, base words,
plurals, and possessives.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Users
of the package should have received instruction in the
language arts skills covered.

CONTENT AND STRUCTURE: The package contains
eight diskettes and an accompanying manual. It
challenges the student to put his/her word skills to work
to beat the computer in a game of strategy much like
Tic-Tac-Toe. The diskettes cover suffixes, contractions,
base words, plurals and possessives. Each diskette
presents six rounds of three games each. A "teacher
feature" shows the student his or her record for each
round listing the words missed. A class record keeper is
located in the back of the manual. The manual provides a
summary of each program.

ESTIMATED STUDENT TIME REQUIRED: 15 minutes
per day

POTENTIAL USES: This would be a good review tool for
concepts previously introduced by the teacher.

MAJOR STRENGTHS: The package is user friendly
incorporating a game format which is motivational and
challenging for students. The program is easy to follow.
The teachers guide gives a summary of each program and
the teacher can see a summary of student performance
by utilizing the "teacher feature". No teacher
preparation is required to get students started.

MAJOR WEAKNESSES: The program does not branch to
different levels of difficulty. The letters had to be typed
very slowly to be accepted by the program. Wrong
responses are not corrected for the student.

OTHER COMMENTS: It seemed to take a long time to
play six games for a reward!! .

EVALUATION SUMMARY -

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•			•		Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
•					Instruction integrates with prior learning.
	•				Learning can be generalized.
	•		•		User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
•					Users can operate easily and independently.
•					Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

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Evaluators indicated that they would use or
recommend use of this package with little
or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 5, Instructional Characteristics - 4,
Technical Characteristics - 4.

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Whole Numbers Practice (PLATO)

VERSION: 1983

PRODUCER: Control Data Publishing Co.
P.O. Box 261127
San Diego, CA 92126

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ISC, Houston, Texas.

COST: $60.00

ABILITY LEVEL: Grades 5 through 8
SUBJECT: Mathematics
TOPIC: Arithmetic, Whole Numbers
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, disk drive, monitor. Also available for: Atari 800, TI 99/4A, and IBM-PC.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In program — program operating instructions, student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisite skills or activities, program operating instructions, teacher's information, student worksheets.

INSTRUCTIONAL OBJECTIVES: (STATED) Designed to help students improve basic addition, subtraction, multiplication and division skills; to help students increase their speed and accuracy with basic number facts; and to help students quickly distinguish between operations.

INSTRUCTIONAL PREREQUISITES: (STATED) Knowledge of basic number facts. User must know how to operate the computer.

CONTENT AND STRUCTURE: Students accumulate points for correctly answering math problems. Each game consists of five rounds. Each round has a different type of problem (addition, subtraction, multiplication, division, and mixed). If time permits, students get three tries per problem. In order to make a high score, the student must try to accurately answer problems as quickly as possible. When a problem is answered correctly, the time gets a little shorter. If the student's final score is one of the ten highest scores, the student may enter his initials into the "Hall of Fame."

ESTIMATED STUDENT TIME REQUIRED: 10-15 minutes per day

POTENTIAL USES: This package can be used as a part of the curriculum for any class studying basic number facts. It may be used in small groups competing against each other or as a privilege/incentive for individual students. It may also be used as a tutor for students with special needs.

MAJOR STRENGTHS: This program will be very motivational for students; directions are clearly stated and easy to follow. The manual is well-written with good supplementary activities. The challenge of improving the student's score is great! This game should help to improve concentration.

MAJOR WEAKNESSES: The time period allowed to solve problems might be too short for some students who aren't familiar with the number keys on the keyboard.

OTHER COMMENTS: It would be nice to have one full disk on each of the four operations for remedial students and also to have slower speeds for these students.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
	•				Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
•					Use of package is motivational.
	•				Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
•					Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
•					Users can operate easily and independently.
•					Teachers can employ package easily.
•					Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 1 (Low) to 5 (High).
Content - 5, Instructional Characteristics - 4,
Technical Characteristics - 5.

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package. Permission to reproduce this document is hereby granted.

Personal Graphics

VERSION: 1983

PRODUCER: Little, Brown Microcomputer
           Bookshelf
           34 Beacon Street
           Boston, MA 02106

EVALUATION COMPLETED: June 1983 by the
staff and constituents of the Institute of
Educational Research, Glenn Ellyn, Illinois.

COST: $14.50

ABILITY LEVEL: Grade 9 through postsecondary
SUBJECT: Computer Science
TOPIC: Programming
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, single
disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Enrichment
INSTRUCTIONAL TECHNIQUES: Graphics,
utilities

DOCUMENTATION AVAILABLE: In
supplementary materials — sample program
output, and program operating instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED)
To increase the student's ability to use the
graphics capability of the Apple II computer.

INSTRUCTIONAL PREREQUISITES:
(INFERRED) Programming in Applesoft BASIC.

CONTENT AND STRUCTURE: This package
contains a book that gives the programmer
techniques for writing graphics routines for the
Apple. All example programs discussed in the
text are supplied on the disk that comes with the
package.

POTENTIAL USES: For effective use, users must
have good, advanced math background. I would
use this in a senior high school in a math-oriented
program.

MAJOR STRENGTHS: The package is very
complete. The range is broad and covers the
subject well.

MAJOR WEAKNESSES: Math functions are
complex at times. The use of error trapping is
poor. It is difficult to see what some programs
want to accomplish, and others are needlessl
time consuming, making the package very
difficult to use.

OTHER COMMENTS: This package is unique in
that the programs on the disk are not
instructional in nature but are examples which
correlate with textbook instruction.
Consequently, many of the evaluation criteria do
not apply. However, the ratings shown reflect
the evaluators' opinions of the package in an
instructional setting.

EVALUATION SUMMARY

SA	A	D	SD	NA	
●					Content is accurate.
	●				Content has educational value.
				●	Content is free of stereotypes.
	●				Purpose of package is well defined.
	●				Package achieves defined purpose.
	●				Content presentation is clear and logical.
	●				Difficulty level is appropriate to audience.
			●		Graphics/sound/color are used appropriately.
●					Use of package is motivational.
●					Student creativity is effectively stimulated.
			●		Feedback is effectively employed.

SA	A	D	SD	NA	
			●		Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
		●			Learning can be generalized.
	●				User support materials are comprehensive.
	●				User support materials are effective.
			●		Information displays are effective.
		●			Users can operate easily and independently.
		●			Teachers can employ package easily.
	●				Computer capabilities are used appropriately.
			●		Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or
recommend use of this package only if certain
changes were made.

Summary: Scale from 1 (Low) to 5 (High).
Content – 5, Instructional Characteristics – 3,
Technical Characteristics – 3.

The Factory

PRODUCER: Sunburst Communications, Inc.
39 Washington Avenue
Pleasantville, NY 10570

EVALUATION COMPLETED: November 1983 by the staff and constituents of Department of Defense Dependents Schools (DoDDS), Washington, DC.

COST: $49.00

ABILITY LEVEL: Grades 4 through 12
SUBJECT: Problem Solving
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 16K Atari 400, 600XL, 800, 800XL, 1200XL, 1400XL, 1450XL, color monitor or TV with adapter and one disk drive. Also available for: Apple II/II+/IIe, Commodore 64, and TRS 80 Color or Color 2.
REQUIRED SOFTWARE: Atari BASIC, DOS 3.2
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Problem solving, simulation

DOCUMENTATION AVAILABLE: In program — program operating instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisitie skills, program operating instructions, teacher's information, student worksheets, preliminary and follow-up activities.

INSTRUCTIONAL OBJECTIVES: To increase visual discrimination, spatial perception, and logic skills; to gain experience in understanding the importance of sequence and order.

CONTENT AND STRUCTURE: This program gives the students the opportunity to develop problem solving abilities through three levels of challenging simulated production line activities. The first part, TEST A MACHINE, allows a student to try each of three machines to see the effect each has on a raw material. The second part, BUILD A FACTORY, allows the student to put up to eight machines together in sequence which will affect the raw material. In the third part, MAKE A PRODUCT, students are shown a product made by several machines and asked to reconstruct the sequence of events to produce the product.

ESTIMATED STUDENT TIME REQUIRED: 30 minutes to one hour.

POTENTIAL USES: This package is appropriate for fourth graders through adult learners. It can best be used for independent work, small group discussions or large group activity.

MAJOR STRENGTHS: The objectives are clearly defined. The technical quality is good. It is especially fine for developing reasoning skills and visual perception.

MAJOR WEAKNESSES: The fine detail in graphics can lead to confusion; specifically the punch shape (circle or square) is difficult to distinguish and is critical to the solution. An expanded display area might help.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
	•				Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

Stickybear Numbers

PRODUCER: Xerox Education Publications
Computer Software Division
Middletown, CT 06457

EVALUATION COMPLETED: September 1983 by the staff and constituents of Linn-Benton ESD, Albany, Oregon.

COST: $39.95

ABILITY LEVEL: Preschool through Grade 1
SUBJECT: Mathematics, Arithmetic
TOPIC: Arithmetic, Counting, Number Recognition
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II/II+/IIe, 48K RAM, single disk drive
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice

DOCUMENTATION AVAILABLE: In supplementary materials — suggested grade/ability level(s), instructional objectives, program operating instructions, teacher's information, student's instructions, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To develop skills in counting and number recognition.

CONTENT AND STRUCTURE: This package includes a hardback storybook entitled "One Bear, Two Bears," an instruction sheet, a poster, stickers, and one disk. When children press a number, they are rewarded with a graphic show of that number of objects moving around the screen. Then, if the space bar is pressed, one object will disappear and the number will be reduced by one, all the way down to zero. The space bar can also be used to count up from zero to nine. Each time a number is pressed, a new set of pictures will be displayed. There are a great number of picture series stored on the disk to allow for a variety of counting shows.

ESTIMATED STUDENT TIME REQUIRED: 10-15 minutes per day

POTENTIAL USES: This package may be used with individuals or small groups as reinforcement of instruction on counting.

MAJOR STRENGTHS: This package makes excellent use of computer graphics and sound which is motivating for the user. The large number of pictures and shapes available for counting holds the students' interest. The program is easy for the student to use and well-protected against inappropriate responses. The user can start and stop at his/her own discretion.

MAJOR WEAKNESSES: The initial counting skills are not taught by the package. There is no way, without supervision, to determine if the child is actually counting the objects since the child does not need to respond to the computer.

OTHER COMMENTS: We would recommend use of this package with parent supervision in order to achieve the intended purpose.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
•					Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
•					Use of package is motivational.
	•				Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
•					Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High). Content – 5; Instructional Characteristics – 4; Technical Characteristics – 5.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

Permission to reproduce this document is hereby granted.

Special Needs, Volume 1 — Spelling

VERSION: 2

PRODUCER: MECC
2520 Broadway Drive
Lauderdale, MN 55113

EVALUATION COMPLETED: June 1983 by the staff and constituents of Linn-Benton County ESD, Albany, Oregon.

COST: $44.00

ABILITY LEVEL: Grades 2 through 6 (for motor-impaired students)
SUBJECT: Language Arts
TOPIC: Spelling
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II, 32K, single disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice

DOCUMENTATION AVAILABLE: In program — student's instructions. In supplementary materials — suggested grade ability level(s), instructional objectives, sample program output, program operating instructions, and teacher information.

INSTRUCTIONAL OBJECTIVES: (STATED) To teach students primary spelling words. To drill physically handicapped students on same words as the rest of the class. To provide the teacher with a means of changing words and sentences.

INSTRUCTIONAL PREREQUISITES: None

CONTENT AND STRUCTURE: Volume 1 diskette contains 20 spelling drills. A sentence with three possible answers is presented to the student. The student chooses a numbered word to answer using the game paddles or any keyboard selection. All answers are reinforced with the correct answer. Teacher has the option to change sentences and words by following procedures in the manual.

ESTIMATED STUDENT TIME REQUIRED: 10 minutes per day OR 20 minutes twice a week OR 20 minutes per drill.

POTENTIAL USES: This program would be useful for individual or classroom review in preparing for tests. It is also aimed at helping the handicapped in special classes as well as mainstreamed classes.

MAJOR STRENGTHS: The program is student self-paced. Organization is easy to follow and feedback is immediate. The teacher can replace existing frames with words of his/her own.

MAJOR WEAKNESSES: None.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•			✓		Content is accurate.
•					Content has educational value.
	•				Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
•					Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•			•	Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 3, Technical Characteristics - 3.

The Exploring of America Series

VERSION: 1981

PRODUCER: Aquarius Publishers, Inc.
P.O. Box 128
Indian Rocks Beach, FL 33535

EVALUATION COMPLETED: June 1983 by the staff and constituents of Linn-Benton ESD, Albany, Oregon.

COST: $169.00

ABILITY LEVEL: Grades 7 through 10
SUBJECT: Social Studies
TOPIC: History
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II, TRS-80
REQUIRED SOFTWARE: Apple: Applesoft, DOS 3.2 or 3.3
INSTRUCTIONAL PURPOSE: Enrichment
INSTRUCTIONAL TECHNIQUES: Tutorial

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, post-test, student's instructions

INSTRUCTIONAL OBJECTIVES: (STATED) The instructional packages are designed to extend and supplement basic historical textbook material and generate excitement about the subject matter.

INSTRUCTIONAL PREREQUISITES: None cited.

CONTENT AND STRUCTURE: Six diskettes and a teachers guide are designed to assist the instructor

in teaching about the American heritage. The microcomputer programs present a series of paragraphs that provide basic information about the subject. Color graphics and "tunes" are used to enhance the learning experience for Apple II programs. TRS-80 programs include graphics. After several pages of information and graphics, questions are presented. An audio "reward" is given for correct answers; for incorrect answers, a reinforcing paragraph of information is presented.

ESTIMATED STUDENT TIME REQUIRED: 30 minutes per diskette (6 diskettes in package)

POTENTIAL USES: Grades 5 through 8, or low level high school students. Extra material for writing reports.

MAJOR STRENGTHS: Information was accurate and concise. The simple maps were helpful. No time limit on reading or answering questions was good.

MAJOR WEAKNESSES: Too much time was wasted on graphics (displays). Objectives need to be stated more clearly. Little interaction was used. The computer still says good when students miss all or most of the answers! All of the questions were facts! Need more interpretation and inference questions.

OTHER COMMENTS: This program was a straight read-and-answer-the-fact-questions program — could be improved by a variety of question types, also by adding a simulation type of game to the program. Have the students take the trips, do the exploring, etc. (simulation).

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
	•				Content has educational value.
	•				Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
•					Content presentation is clear and logical.
		•			Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
			•		Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
•					Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
		•			Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this program with little or no change.

Summary: Scale from 1 (Low) to 5 (High). Content - 4, Instructional Characteristics - 3, Technical Characteristics - 3.

A 1

Sports Stats

PRODUCER: TIES
1925 W. County Road B-2
Roseville, MN 55113

EVALUATION COMPLETED: June 1983 by the staff and constituents of North Clackamas School District, Milwaukie, Oregon.

COST: $59.95

ABILITY LEVEL: Not applicable.
SUBJECT: Physical Education
TOPIC: Athletics Statistics
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, single disk drive, monitor, printer
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL TECHNIQUES: Information retrieval

DOCUMENTATION AVAILABLE: In program — program operating instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, sample program output, program operating instructions, teacher's information, and student worksheets.

INSTRUCTIONAL OBJECTIVES: (STATED) To process athletic statistical data for individuals and/or team performance. To generate reports using current data or cumulative data.

CONTENT AND STRUCTURE: Sport Stats is a utility package which allows for processing of athletic statistical data for individual and/or team performance. Users may choose from 12 available routines for basketball, wrestling, hockey, baseball,

or football. Statistical data is generated for each game, and/or player, and may be accumulated over the season.

ESTIMATED STUDENT TIME REQUIRED: In less than an hour a user could be well into the function of this package. Day-to-day updates requiring approximately 1/2 hour would then be necessary.

POTENTIAL USES: The purpose of this package is to generate information summaries and to retrieve athletic statistics. It would be useful to an individual in a coaching position. It would also be an excellent example of an information summary for display purposes. However, it would be of limited use in the classroom.

MAJOR STRENGTHS: The package is extremely well-documented. Externally, there is clear and concise disection. Easy entry stat sheets are provided for input. Internally, there is easy transportation from one section to another.

MAJOR WEAKNESSES: The statistics which are recorded are fairly general. A more complete approach could be generated by a particular coach in a particular sport. Since it covers five sports, it covers each at a minimum level. It does the best job on baseball, but even that routine is of limited use.

OTHER COMMENTS: To a coach who knew nothing about the computer, this package would be fairly user-friendly, although the statistical analysis is somewhat weak.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
			•		Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
•					Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
•					User support materials are comprehensive.
•					User support materials are effective.
•					Information displays are effective.
•			•		Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
•		•			Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

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Evaluators indicated that they would not use or recommend use of this package.

Summary: Scale from 1 (Low) to 5 (High).
Content - 3; Instructional Characteristics - 3;
Technical Characteristics - 3.

Mind Benders, A3

VERSION: Apple

PRODUCER:　Midwest Publications
　　　　　　P.O. Box 448
　　　　　　Pacific Grove, CA　93950

EVALUATION COMPLETED: June 1983 at the
University of Portland, Portland, Oregon.

COST: $49.95

ABILITY LEVEL: Grade 4 through adult
SUBJECT: Language Arts, Mathematics
TOPIC: Logic, Deductive Thinking, Problem Solving
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II, single disk
drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction,
enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice,
tutorial, problem solving

DOCUMENTATION AVAILABLE: In program —
instructional objectives, program operating instructions,
and student's instructions. In supplementary materials —
suggested grade/ability level(s), instructional objectives,
prerequisite skills or activities, sample program output,
program operating instructions, teacher's information,
and student's instructions.

INSTRUCTIONAL OBJECTIVES: (STATED) To use given
facts to help solve a given problem. To sharpen deductive
thinking skills for better reading comprehension, math,
science, writing, and test-taking.

INSTRUCTIONAL PREREQUISITES: (STATED) This
package is of medium difficulty, so some experience with
deductive thinking is appropriate.

CONTENT AND STRUCTURE: This package contains
one disk and supplementary materials. Its purpose is to
teach and drill students on deductive thinking skills. The
student is presented with a series of eleven problems.
The program provides feedback as the student attempts
to solve the problem.

ESTIMATED STUDENT TIME REQUIRED: Varies with
each student.

POTENTIAL USES: This program is suitable for use by
individual students, or in a small group setting.

MAJOR STRENGTHS: The problems themselves are
challenging and fun to solve.

MAJOR WEAKNESSES: Student Use — The construction
of the chart is tedious requiring the step-by-step entry
of both a number and a + or - sign. There are too many
steps involved in revising incorrect entries. More
difficult problems require two entries for each of
twenty-five positions on the chart. Feedback — When the
answer is fully entered into the chart and the student asks
for a check of the answer, a single incorrect entry will
cause the erasure of the entire chart. The student then
must completely reenter the answer. This aspect would
make the program frustrating to all but a few of the most
careful and accurate students. There is no provision for
partially correct answers.

OTHER COMMENTS: The users should be advised to
make a working copy of the chart on paper as they
progress with the exercise.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	●				Content is accurate.
	●				Content has educational value.
	●				Content is free of stereotypes.
	●				Purpose of package is well defined.
	●				Package achieves defined purpose.
	●				Content presentation is clear and logical.
	●				Difficulty level is appropriate to audience.
		●	●		Graphics/sound/color are used appropriately.
	●				Use of package is motivational.
	●				Student creativity is effectively stimulated.
		●			Feedback is effectively employed.

SA	A	D	SD	NA	
		●			Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
	●				Learning can be generalized.
	●				User support materials are comprehensive.
	●				User support materials are effective.
		●			Information displays are effective.
		●			Users can operate easily and independently.
	●				Teachers can employ package easily.
	●				Computer capabilities are used appropriately.
	●				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or
recommend use of this package only if certain
changes were made.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4, Instructional Characteristics - 2,
Technical Characteristics - 2.

Spanish Vocabulary Builder (PLATO)

VERSION: 1983

PRODUCER: Control Data Publishing Company
             P.O. Box 261127
             San Diego, CA 92126

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ISC, Houston, Texas.

COST: $60.00

ABILITY LEVEL: Grades 8 through 12
SUBJECT: Languages
TOPIC: Spanish
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II+, disk drive and controller, monitor. Also available for: Atari 800, TI 99/4A, and IBM-PC.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In program — suggested grade/ability level(s), program operating instructions, student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisite skills or activities, teacher's information, resource/reference information, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) The Spanish activity disk is intended to provide drill and practice in recognizing and understanding a basic spanish language vocabulary.

INSTRUCTIONAL PREREQUISITES: (STATED) A basic introduction (exposure) to the Spanish language and a review of the vocabulary would be helpful to the student prior to using the Spanish Vocabulary Builder.

CONTENT AND STRUCTURE: The package consists of one diskette, a back-up diskette, and an accompanying manual with summary information and worksheets. The program contains two kinds of exercises designed to motivate students. There is an animated version of hangman and a multiple choice drill with a pyramid game format. The vocabulary consists of 500 words divided into 10 categories.

ESTIMATED STUDENT TIME REQUIRED: 20 minutes for two games per category; 2-3 hours total time.

POTENTIAL USES: This package could be used as an individual or small group activity. Student mastery of a current vocabulary list would be required for effective interaction. The package could be used for drill and practice, motivational exercise or reward, and possibly as an assessment tool.

MAJOR STRENGTHS: Well organized and highly motivational. The package includes worksheets, quizzes, vocabulary lists and other supplementary materials. The directions are easy to follow. It allows the user to escape the game. Missed words are repeated for the user. If a student becomes frustrated, he/she can get a review of the word list. The sound can be turned off if the teacher feels it is distracting.

MAJOR WEAKNESSES: Sometimes words appear in a game that are not listed in the category. The games seem long.

OTHER COMMENTS: Unless a student is highly motivated and a real "sharpie", he/she will not be able to complete both games in five minutes, as the program states.

EVALUATION SUMMARY

SA	A	D	SD	NA	
●					Content is accurate.
●					Content has educational value.
●					Content is free of stereotypes.
●					Purpose of package is well defined.
●					Package achieves defined purpose.
	●				Content presentation is clear and logical.
●					Difficulty level is appropriate to audience.
●					Graphics/sound/color are used appropriately.
	●				Use of package is motivational.
		●			Student creativity is effectively stimulated.
	●				Feedback is effectively employed.

SA	A	D	SD	NA	
●					Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
		●			Learning can be generalized.
●					User support materials are comprehensive.
	●				User support materials are effective.
	●				Information displays are effective.
●					Users can operate easily and independently.
●					Teachers can employ package easily.
	●				Computer capabilities are used appropriately.
●					Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 1 (Low) to 5 (High).
Content - 5, Instructional Characteristics - 4,
Technical Characteristics - 5.

Mind Benders, B1

VERSION: Apple

PRODUCER: Midwest Publications
          P.O. Box 448
          Pacific Grove, CA 93950

EVALUATION COMPLETED: June 1983 at the
University of Portland, Portland, Oregon.

COST: $49.95

ABILITY LEVEL: Grade 4 through adult
SUBJECT: Language Arts, Mathematics
TOPIC: Logic, Deductive Thinking, Problem Solving
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II, single disk
drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction,
enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice,
tutorial, problem solving

DOCUMENTATION AVAILABLE: In program —
instructional objectives, program operating instructions,
and student's instructions. In supplementary materials —
suggested grade/ability level(s), instructional objectives,
prerequisite skills or activities, sample program output,
program operating instructions, teacher's information,
and student's instructions.

INSTRUCTIONAL OBJECTIVES: (STATED) To use given
facts to help solve a given problem. To sharpen deductive
thinking skills for better reading comprehension, math,
science, writing, and test-taking skills.

INSTRUCTIONAL PREREQUISITES: (STATED) This
package is of medium difficulty, so some experience with
deductive thinking is appropriate.

CONTENT AND STRUCTURE: This package contains
one disk and supplementary materials. Its purpose is to
teach and drill students on deductive thinking skills. The
student is presented with a series of eleven problems.
The program provides feedback as the student attempts
to solve the problem.

ESTIMATED STUDENT TIME REQUIRED: Each of the
eleven problems will take 15 to 30 minutes. One problem
per day would be appropriate.

POTENTIAL USES: This package is more appropriate for
use with high school students or adults. The problems on
this disk could be an assignment following instruction on
problem solving techniques. The problems are fairly
difficult so students should work in pairs.

MAJOR STRENGTHS: Level — The problems are of an
advanced level. Student Use — The package is menu
driven making it easy to use. The instructions are clear
so that most students could solve the problem with little
or no help.

MAJOR WEAKNESSES: Level — The problems are fairly
difficult and the students will need to be directed to only
attempt one problem at a time. Feedback — Student
feedback simply says that more than one has been missed
and the user has to start all over again. Student Use —
There is no place in the program where the student can
see all of the facts displayed at once. Therefore, the use
of a paper and pencil grid is almost essential to finding
the solution to the problem. Program Operation — The
program runs very slowly.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	●				Content is accurate.
	●				Content has educational value.
●					Content is free of stereotypes.
●					Purpose of package is well defined.
		●			Package achieves defined purpose.
	●				Content presentation is clear and logical.
		●			Difficulty level is appropriate to audience.
	●				Graphics/sound/color are used appropriately.
	●				Use of package is motivational.
		●			Student creativity is effectively stimulated.
			●		Feedback is effectively employed.

SA	A	D	SD	NA	
	●				Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
	●				Learning can be generalized.
		●			User support materials are comprehensive.
	●				User support materials are effective.
	●				Information displays are effective.
	●				Users can operate easily and independently.
	●				Teachers can employ package easily.
		●			Computer capabilities are used appropriately.
●					Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or
recommend use of this package with little
or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 3, Instructional Characteristics - 3,
Technical Characteristics - 3.

This evaluation is based on the evaluations of three or more reviewers
who are representative of potential users of the courseware package.

Advertising Techniques

VERSION: 1980

PRODUCER: Micro Power and Light Company
12820 Hillcrest Road, Suite 224
Dallas, TX 75230

EVALUATION COMPLETED: August, 1983 by the staff
and constituents of the Linn-Benton ESD, Albany, Oregon.

COST: $24.95

ABILITY LEVEL: Grades 5 through 12
SUBJECT: Language Arts
TOPIC: Advertising
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 32K Apple II
REQUIRED SOFTWARE: DOS 3.2 or 3.3
INSTRUCTIONAL PURPOSE: Enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice,
tutorial, problem solving

DOCUMENTATION AVAILABLE: In program — program
operating instructions, post-test, and student's
instructions. In supplementary materials — suggested
grade/ability level(s).

INSTRUCTIONAL OBJECTIVES: (INFERRED) To
develop critical analysis skills.

INSTRUCTIONAL PREREQUISITES: (INFERRED) The
ability to read and think logically.

CONTENT AND STRUCTURE: One disk with a brief
one-page "manual." Disk covers four main advertising
techniques: Join the Crowd, Decide For Yourself,
Remember Me?, and Act Now! Each technique consists
of: instruction with illustrative examples, exercises,
quiz, concluding mastery quiz, and consumer intelligence
level.

ESTIMATED STUDENT TIME REQUIRED: Fifteen
minutes to one hour, best used at one sitting.

POTENTIAL USES: The package would be useful to
supplement the study of advertising techniques,
persuasive presentation in speech or critical thinking
skills. Students working individually or in pairs could
operate this package independently.

MAJOR STRENGTHS: 1) Correct response displayed
non-threateningly if answer is wrong. 2) Good mix of
explanation and questioning. 3) Ability to review previous
screen display in quiz section. 4) Highlighting of
important text used effectively. 5) Concepts consistently
reinforced. 6) Useful and realistic examples. 7) Good,
simple non-threatening progress display.

MAJOR WEAKNESSES: 1) Error in quiz question
involving football player and soap. Correct answer
produced "We have not studied that technique." 2) Very
minimal use of graphics with too much text display. 3)
Text displayed at fixed, slow, "readable" rate. Some text
stayed on screen only for a fixed period of time; no
chance to keep display. 4) Program overuse of text may
prove boring to some students. 5) No teacher summary
material. Must run entire program to determine content.

OTHER COMMENTS: An effective, though somewhat
unimaginative, program. It does what it sets out to do. I
would use it but would not pay much for it.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
		•			Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•	•			Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
•	•				Instruction integrates with prior learning.
	•	•			Learning can be generalized.
		•			User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
•					Users can operate easily and independently.
•					Teachers can employ package easily.
		•			Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or
recommend use of this package with little
or no change.

Summary: Scale from 1 (Low) to 5 (High).
Content - 4; Instructional Characteristics - 3;
Technical Characteristics - 2.

The German and Russian Hangman

VERSION: 1982

PRODUCER: George Earl
1302 S. General McMullen
San Antonio, TX 78237

EVALUATION COMPLETED: June 1983 by the staff and constituents of Connecticut Department of Education, Hartford, Connecticut, and the Multnomah County ESD, Portland, Oregon.

COST: $29.95

ABILITY LEVEL: Grades 9 through 12
SUBJECT: Foreign Languages
TOPIC: German/Russian
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II or Apple II+, single disk drive, monitor,
REQUIRED SOFTWARE: Applesoft, DOS 3.2 or 3.3
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial

DOCUMENTATION AVAILABLE: In program — program operating instructions, student's instructions. In supplementary materials — program operating instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED)
To provide drill and practice translating between English and either German or Russian.

INSTRUCTIONAL PREREQUISITES:
(INFERRED) Instruction on the meaning and usage of the German and Russian words contained in the program.

CONTENT AND STRUCTURE: This program employs hi-res screen alphabet characters with a hangman type game format to give the user drill and practice translating between either German or Russian and English. The German program contains 140 words and 140 sentences for practice. The Russian program contains 80 words and 180 sentences. Options available include a review of the translation, and practice translating from German or Russian to English, or English to German or Russian.

ESTIMATED STUDENT TIME REQUIRED: 15 to 20 minutes per session

POTENTIAL USES: I would use it only with adults who have had extensive experience in learning another foreign language who wish to experiment with German or Russian.

MAJOR STRENGTHS: Russian characters are accurately reproduced. The layout is interesting. The program can be used independently.
Student response to both the German and Russian hangman was very positive. The graphics are good. The program is well sequenced and ample opportunity is provided to review errors. The Russian teacher was impressed with the use of the Cyrillic alphabet.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
		•			Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
•					Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
•					User support materials are comprehensive.
•					User support materials are effective.
•					Information displays are effective.
•					Users can operate easily and independently.
•					Teachers can employ package easily.
•					Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA – Strongly Agree A – Agree D – Disagree SD – Strongly Disagree NA – Not Applicable

One evaluator indicated he would not recommend use of this package.

Two evaluators indicated that they would use or recommend use of this package with little or no change.

The German and Russian Hangman, continued

MAJOR WEAKNESSES: The use of English
phonetic transcriptions for Russian letters
detracts from the authenticity of the content.
Translating should be a very limited activity in
secondary foreign language classes. It can be
counterproductive in the total experience of
learning a language. Much of the program can be
done by guessing. It is questionable how much
language learning takes place. The Russian
teacher was concerned about the failure to use
international translation symbols which will be
confusing to students.

Genetics

PRODUCER: TIES
                   1925 W. County Road B-2
                   Roseville, MN 55113

EVALUATION COMPLETED: April, 1983 by the staff
and constituents of PREPS, Mississippi State, Mississippi.

COST: $49.95

ABILITY LEVEL: Grades 4 through 8
SUBJECT: Science, Health
TOPIC: Genetics
MEDIUM OF TRANSFER: 5-1/4 in. flexible disk
REQUIRED HARDWARE: 32K Apple II Plus, single disk
drive, color video monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction,
enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice,
simulation

DOCUMENTATION AVAILABLE: In program — student's
instructions. In supplementary materials — suggested
grade/ability level(s), instructional objectives,
prerequisite skills or activities, sample program output,
program operating instructions, post-test, teacher's
information, student's instructions, student worksheets,
and follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) Chromy Bug
— to identify and correctly use the rules for determining
the parental gene traits that will be transmitted to
offspring. Blood Typing — to use the following to
correctly determine the blood type of an offspring: a)
rules for identifying blood types; b) blood type test
results; and c) the parents' genotypes.

INSTRUCTIONAL PREREQUISITES: (STATED) For
Chromy Bug — appropriate after a study of: 1) function

of genes and chromosomes; 2) relationship between
dominant and recessive genes; 3) mechanism for
transmitting genes from parent to offspring; and 4) basic
structure and function of the cell. For Blood Typing —
appropriate after a study of: 1) blood composition; 2)
blood typing procedures; 3) how blood types are inherited;
and 4) use of Punnett Square to determine possible gene
combinations.

CONTENT AND STRUCTURE: Genetics contains two
drill and practice/simulation programs. In Chromy Bug,
students use the rules of dominance to decide which of
the parent's gene traits will be dominant and will be
transmitted to the offspring. In Blood Typing, students
are given the rules for inheriting blood types and
simulated procedures for typing blood with Anti-A and
Anti-B serums. The students then identify blood types in
a simulated hospital laboratory.

POTENTIAL USES: This program is most appropriate for
use by individual students, by two students working
together, or by the entire class.

MAJOR STRENGTHS: The activity sheets for reinforcing
the skills and terminology taught in the program are very
useful. The content of the program is presented in an
interesting manner.

MAJOR WEAKNESSES: For some students, the
activities may be too advanced, and for others, too slow.
Teachers would have to know their students' capabilities.

OTHER COMMENTS: One evaluator pointed out that the
package is a bit misleading in that it implies genetic
codes can be changed. Rather than go back and change
an existing bug's code, a new bug should be created.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
	•				Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
			•		Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
		•			Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use
of this package with little or no change.

Summary: Scale from 1 (Low) to 5 (High). Content - 4,
Instructional Characteristics - 3,
Technical Characteristics - 3.

SUBJECT	TITLE	PRODUCER	LEVEL	HRDWR.	SET
BASIC LIVING SKILLS	HOME SAFE HOME	MCE, INC.	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
	INCOME MEETS EXPENSES	MCE, INC.	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
	JOB READINESS -- ASSESSMENT AND DEVELOPMENT	MCE, INC.	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
	MONEY MANAGEMENT ASSESSMENT SERIES	MCE, INC.	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
	POISON PROOF YOUR HOME	MCE, INC.	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
	YOU CAN BANK ON IT	MCE, INC.	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
BUSINESS EDUCATION	MASTER TYPE	LIGHTNING SOFTWARE	4 5 6 7 8 9 10 11 12 POST.	APPLE	8
	NUMERIC DATA ENTRY PRACTICE	RADIO SHACK EDUCATION DIVISION	9 10 11 12	TRS-80	4
	TOUCH TYPING	COVE VIEW PRESS SOFTWARE	5 6 7 8 9 10 11 12	TRS-80	4
	TYPING TUTOR	MICROSOFT CONSUMER PRODUCTS	8 9 10 11 12	APPLE	2
CAREER EDUCATION	CAREER SCAN IV	NATIONAL EDUCATIONAL SOFTWARE	6 7 8 9 10 11 12 POST.	APPLE	9
COMPUTER SCIENCE	COMPUTER LITERACY: INTRO. (PLATO)	CONTROL DATA PUBLISHING CO.	6 7 8 9 10 11 12 POST.	APPLE	9
	DISCOVER BASIC	STERLING SWIFT PUBLISHING CO.	7 8 9 10 11 12 POST.	APPLE	6
	KAREL THE ROBOT	CYBERTRONICS INTERNATIONAL INC	9 10 11 12	APPLE	3
	PERSONAL GRAPHICS	LITTLE, BROWN & CO.	9 10 11 12 POST.	APPLE	9
	THE PROGRAMMABLE CUBE	METACOMET SOFTWARE	9 10 11 12 POST.	APPLE	6
LANGUAGE ARTS	ADVERTISING TECHNIQUES	MICRO POWER & LIGHT CO.	5 6 7 8 9 10 11 12	APPLE	9
	ALPHABET KEYBOARD	RANDOM HOUSE, SCHOOL DIVISION	PRE-1 1	TRS-80	3
	ALPINE SKIER	DATA COMMAND	6 7 8	APPLE	8
	ANTONYMS/SYNONYMS	HARTLEY COURSEWARE, INC.	3 4 5 6 7 8	APPLE	5
	BASIC ENGLISH SKILLS	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	6 7 8 9 10 11 12	APPLE	5
	BIG DOOR DEAL	DATA COMMAND	6 - 12	APPLE	9
	BRIDGE TO TERABITHIA	SUNBURST COMMUNICATIONS	5 6 7 8	APPLE	8
	CALL OF THE WILD	A/V CONCEPTS CORPORATION	3 4 5 6 7 8 9 10	APPLE	8
	CARIS	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	PRE-1 1 2 3	APPLE	7
	COMPREHENSION POWER PROGRAM	MILLIKEN PUBLISHING CO. AND I/CT, INC.	4 5 6 7 8 9 10 11 12	APPLE	4
	CONSONANTS/BLENDS	HARTLEY COURSEWARE, INC.	1 2 3	APPLE	5
	CREATE.SPELL-IT	HARTLEY COURSEWARE, INC.	PRE-1 1 2 3 4 5 6 7 8 9 10	APPLE	5
	CREATE VOCABULARY	HARTLEY COURSEWARE, INC.	1 2 3 4 5 6 7 8 9 10	APPLE	6
	DIASCRIPTIVE READING	EDUCATIONAL ACTIVITIES, INC.	3 4 5 6 7 8	APPLE	8
	EARL'S WORD POWER	GEORGE EARL	4 5 6 7 8 9 10 11 12	APPLE	7
	ENGLISH COMPUTORIALS	EDUCULTURE	10 11 12 POST..	APPLE	4
	ENGLISH, VOLUME 1	MECC	6 7 8	APPLE	8
	FLOPPY TEACHES HOW TO PRINT LETTERS AND NUMERALS	FLOPPY ENTERPRISES	PRE-1 1	APPLE	8

SUBJECT	TITLE	PRODUCER	LEVEL	HRDWR.	SET
	GRAMMAR AND WRITING	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	4 5	APPLE	9
	GRAMMAR PACKAGE I	MICRO LEARNINGWARE	4 5	TRS-80	4
	GRAMMAR PROBLEMS FOR PRACTICE: HOMONYMS	MILLIKEN PUBLISHING COMPANY	3 4 5 6 7 8 9	APPLE	4
	HOMONYMS IN CONTEXT	RANDOM HOUSE, SCHOOL DIVISION	3 4 5 6 7 8 9	APPLE	4
	LETTER RECOGNITION	HARTLEY COURSEWARE, INC.	PRE-1 1	APPLE	5
	MAGIC SPELLS	ADVANCED LEARNING TECHNOLOGY, INC.	1 2 3 4 5 6 7 8	APPLE	5
	MULTIPLE SKILLS	HARTLEY COURSEWARE, INC.	1 2 3	APPLE	6
	NOUNS/PRONOUNS	HARTLEY COURSEWARE, INC.	3 4 5 6	APPLE	5
	OUR WEIRD AND WACKY WORLD/ CRITICAL READING PROGRAM	EDUCATIONAL ACTIVITIES, INC.	2 3 4 5	APPLE	6
	OUR WEIRD AND WACKY WORLD/ LITERAL COMPREHENSION PROGRAM	EDUCATIONAL ACTIVITIES, INC.	3 4 5	APPLE	6
	PHONET	TIES	1 2 3 4 5 6	APPLE	6
	PIK-PEK-PUT	DATA COMMAND	5 6 7 8	APPLE	9
	READING FLIGHT	SCOTT, FORESMAN AND COMPANY	6	TI	7
	READING RALLY	SCOTT, FORESMAN AND COMPANY	5	TI	7
	READING ROUNDUP	SCOTT, FORESMAN AND COMPANY	4	TI	7
	RHYMES AND RIDDLES	SPINNAKER SOFTWARE	PRE-1 1 2 3 4	APPLE	8
	RIDDLE ME THIS	DATA COMMAND	4 5 6 7	APPLE	8
	ROOTS/AFFIXES	HARTLEY COURSEWARE, INC.	3 4 5 6 7 8	APPLE	5
	SENTENCE DIAGRAMMING	AVANT-GARDE CREATIONS	7 8 9 10 11 12	APPLE	4
	SENTENCES	MICRO POWER & LIGHT CO.	5 6 7 8 9 10 11 12	APPLE	4
	SIMS	TIES	1 2 3 4 5 6	APPLE	6
	SPECIAL NEEDS, VOL.1-SPELLING	MECC	2 3 4 5 6	APPLE	9
	SPEED READER	DAVIDSON AND ASSOCIATES	7 8 9 10 11 12	APPLE	5
	SPELLING STRATEGY	BEHAVIORAL ENGINEERING	2 3 4 5 6 7 8	APPLE	5
	STORY MACHINE	SPINNAKER SOFTWARE	PRE-1 1 2 3	APPLE	8
	TANK TACTICS	DATA COMMAND	3 - 12	APPLE	9
	TENNIS ANYONE?	DATA COMMAND	4 5 6 7 8	APPLE	8
	THE WESTING GAME	SUNBURST COMMUNICATIONS	5 6 7 8	APPLE	8
	VERB VIPER	DLM, INC.	3 4 5 6	APPLE	9
	VERBS	HARTLEY COURSEWARE, INC.	2 3 4 5	APPLE	5
	VOCABULARY DOLCH	HARTLEY COURSEWARE, INC.	PRE:1 1 2 3	APPLE	5
	VOCABULARY SKILLS: CONTEXT CLUES	MILTON BRADLEY	5 6 7 8 9	APPLE	8
	VOCABULARY SKILLS: PREFIXES, SUFFIXES AND ROOT WORDS	MILTON BRADLEY	6 7 8 9	APPLE	8
	VOWELS	HARTLEY COURSEWARE, INC.	2 3	APPLE	6
	WHO, WHAT, WHERE, WHEN	HARTLEY COURSEWARE, INC.	1 2 3 4 5 6	APPLE	6
	WORD FAMILIES	HARTLEY COURSEWARE, INC.	PRE-1 1 2	APPLE	5
	WORD GAMES	MECC		ATARI	7

SUBJECT	TITLE	PRODUCER	LEVEL	HRDWR.	SET
	WORD INVASION	DLM, INC.	5 6 7 8	APPLE	9
	WORD MASTER	DLM, INC.	4 5 6 7	APPLE	8
	WORD MEMORY PROGRAM	I/CT, INC.	1	APPLE	8
	WORD SEARCH	HARTLEY COURSEWARE, INC.	2 3 4 5 6	APPLE	5
	WORDMAN	DLM, INC.	1 2 3 4 5 6	APPLE	9
	WORDWATCH	INSTANT SOFTWARE, INC.	5 6 7 8 9	TRS-80	4
	WORDWRIGHT	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	4 5 6 7 8 9 10 11 12	APPLE	7
LANGUAGES	FRENCH VOCABULARY BUILDER (PLATO)	CONTROL DATA PUBLISHING CO.	7 8 9 10 11 12 POST.	APPLE	9
	GERMAN VOCABULARY BUILDER (PLATO)	CONTROL DATA PUBLISHING CO.	8 - 12	APPLE	9
	LE VOCABULAIRE FRANCAIS	ISLAND SOFTWARE	7 8 9 10 11 12	APPLE	9
	SPANISH VOCABULARY BUILDER (PLATO)	CONTROL DATA PUBLISHING CO.	8 9 10 11 12	APPLE	
	THE GERMAN/RUSSIAN HANGMAN	GEORGE EARL	9 10 11 12 P	AP	9
	THE SPANISH HANGMAN	GEORGE EARL	7 8 9 10 11 12	APPLE	4
LIBRARIES	LIBRARY SKILLS: WHAT'S THERE AND HOW TO FIND IT	MICRO POWER & LIGHT CO.	4 5 6 7 8 9 10 11 12	APPLE	2
MATHEMATICS	ADDITION AND SUBTRACTION 1 AND 2	SCOTT, FORESMAN AND COMPANY.	PRE-1 1 2 3	TI	3
	ALIEN ADDITION	DLM, INC.	PRE-1 1 2 3 4 5 6 7 8	APPLE	3
	ALLIGATOR MIX	DLM, INC.	1 2 3 4 5 6 7 8 9	APPLE	4
	APPLE & SURFACE	CONDUIT	11 12 POST.	APPLE	4
	ARITH-MAGIC	QED, INC.	2 3 4 5 6 7 8 9	APPLE	7
	ARITHMETIC OF FUNCTIONS	MATH SOFTWARE	9 10 11 12 POST.	APPLE	2
	ARITHMETIC RACING	MATH SOFTWARE	4 5 6 7 8 9 10 11	APPLE	2
	BINOMIAL MULTIPLICATION	MATH SOFTWARE	8 9 10 11 12	APPLE	2
	BUMBLE GAMES	THE LEARNING COMPANY	PRE-1 1 2 3 4 5	APPLE	7
	BUMBLE PLOT	THE LEARNING COMPANY	3 4 5 6 7 8	APPLE	7
	CLOCK	HARTLEY COURSEWARE, INC.	1 2 3	APPLE	6
	COMPUTER GRAPHING EXPERIMENTS	ADDISON-WESLEY PUBLISHING CO.	10 11 12	APPLE	6
	COMPUTER MATH ACTIVITIES, VOLUME 5	ADDISON-WESLEY PUBLISHING CO.	1 2 3 4 5 6 7 8 9	APPLE	9
	COMPUTER MATH ACTIVITIES, VOLUME 4	ADDISON-WESLEY PUBLISHING CO.	1 2 3 4 5 6 7 8 9	APPLE	7
	COMPUTER MATH ACTIVITIES, VOLUME 3	ADDISON-WESLEY PUBLISHING CO.	1 2 3 4 5 6 7 8 9	APPLE	7
	COMPUTER MATH ACTIVITIES, VOLUME 1	ADDISON-WESLEY PUBLISHING CO.	1 2 3 4 5 6 7 8 9	APPLE	7
	COMPUTER MATH ACTIVITIES,	ADDISON-WESLEY PUBLISHING CO.	1 2 3 4 5 6 7 8 9	APPLE	7

SUBJECT	TITLE	PRODUCER	LEVEL	HRDWR.	SET
	VOLUME 2				
	COMPUTER MATH GAMES	ADDISON-WESLEY PUBLISHING CO.	1 2 3 4 5 6 7 8 9	APPLE	6
	DECIMAL SKILLS	MILTON BRADLEY	5 6 7 8 9	APPLE	8
	DECIMALS PRACTICE (PLATO)	CONTROL DATA PUBLISHING CO.	4 5 6 7 8 9	APPLE	9
	DIVISION 1	SCOTT, FORESMAN AND COMPANY	3 4 5	TI	7
	DRAGON MIX	DLM, INC.	3 4 5 6 7	APPLE	7
	ELEMENTARY MATH	MECC	4 5 6	APPLE	7
	ELEMENTARY MATHEMATICS CLASS-ROOM LEARNING SYSTEM: WHOLE NUMBERS	STERLING SWIFT PUBLISHING CO.	4 5 6 7	APPLE	4
	EMSI-6	EDUCATIONAL MICROSYSTEMS, INC.	3 4 5-6 7 8 9	TRS-80	1
	ESSENTIAL MATH PROGRAM	RADIO SHACK EDUCATION DIVISION	7 8 9 10 11 12	TRS-80	4
	EUCLID GEOMETRY TUTOR	RADIO SHACK EDUCATION DIVISION	9 10 11 12	TRS-80	4
	EXPANDED NOTATION	HARTLEY COURSEWARE, INC.	3 4 5	APPLE	6
	FACTORING WHOLE NUMBERS	QED, INC.	5 6 7 8 9 10 11 12	APPLE	1
	FRACTIONS	QED, INC.	5 6 7 8 9 10 11 12	APPLE	1
	FRACTIONS PRACTICE (PLATO)	CONTROL DATA PUBLISHING CO.	4 - 9	APPLE	9
	FUNCTION GRAPHER	MATH SOFTWARE	8 9 10 11 12 POST.	APPLE	2
	FUNDAMENTAL MATH I, II, III	RANDOM HOUSE, SCHOOL DIVISION	1 2 3 4 5 6 7 8 9	TRS-80	4
	INSTRUCTIONAL COMPUTING IN ALGEBRA II	PINELLAS COUNTY SCHOOL SYSTEM	9 10 11 12	APPLE	4
	LEMONADE	ATARI PROGRAM EXCHANGE	4 5 6 7 8 9 10 11 12	ATARI	5
	LESSONS IN ALGEBRA	GEORGE EARL	7 8 9 10	APPLE	6
	LIMACONS AND THEIR AREAS	MATH SOFTWARE	11 12 POST.	APPLE	2
	LIMITS OF SEQUENCES	MATH SOFTWARE	11 12 POST.	APPLE	2
	MATH CONCEPTS	HARTLEY COURSEWARE, INC.	2 3 4 5 6	APPLE	5
	MATH FACTS/NUMBER AND MATH MASTERY A, B, C, AND D	COLORADO CYPHERNETICS, INC.	3 4 5 6	APPLE	6
	MATH SEQUENCES	MILLIKEN PUBLISHING COMPANY	1 2 3 4 5 6 7 8	APPLE	2
	MATH SKILLS -- ELEMENTARY	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	2 3 4 5 6	APPLE	6
	MATH SKILLS -- JUNIOR HIGH	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	7 8 9	APPLE	7
	MATH STRATEGY	BEHAVIORAL ENGINEERING	2 3 4 5 6 7 8	APPLE	5
	MATH STRATEGY: LINEAR SEARCH GAMES	CREATIVE PUBLICATIONS, INC.	5 6 7 8	APPLE	3
	MATHEMATICS ASSESSMENT/PRESCRIPTIVE PROGRAM, LVL. 5-7	READER'S DIGEST SERVICES, INC.	5 6 7	APPLE	8
	MATHEMATICS DRILL AND PRACTICE	COMPAK, INC.	1 2 3 4 5 6 7 8	APPLE	2
	METRIC DRILL	HARTLEY COURSEWARE, INC.	4 5 6 7 8	APPLE	5
	MINUS MISSION	DLM, INC.	1 2 3 4 5 6 7 8 9 10 11 12	APPLE	4
	MIXED NUMBERS	MILTON BRADLEY	5 6 7 8 9	APPLE	7
	MOPTOWN	THE LEARNING COMPANY	1 2 3 4 5 6 7 8 9 10 11 12	APPLE	7

SUBJECT	TITLE	PRODUCER	LEVEL	HRDWR.	SET
	MORE ALGEBRA: COMP	TYCOM ASSOCIATES	9 10 11 12	PET	4
	MORE ALGEBRA: DISC	TYCOM ASSOCIATES	9 10 11 12	PET	4
	MORE ALGEBRA: QUAD	TYCOM ASSOCIATES	9 10 11 12	PET	4
	MORE ALGEBRA: SIMUL	TYCOM ASSOCIATES	9 10 11 12	PET	4
	MORE ALGEBRA: SLOPE	TYCOM ASSOCIATES	9 10 11 12	PET	4
	NUMBER BLAST	ATARI PROGRAM EXCHANGE	1 2 3 4 5 6 7 8 9 10 11 12	ATARI	4
	NUMBER WORDS, LEVEL 1	HARTLEY COURSEWARE, INC.	2 3 4	APPLE	6
	NUMBER WORDS, LEVEL 2	HARTLEY COURSEWARE, INC.	2 3 4 5	APPLE	6
	PRESCRIPTIVE MATH DRILL	HARTLEY COURSEWARE, INC.	1 2 3 4 5 6 7 8	APPLE	6
	READ AND SOLVE MATH PROBLEMS	EDUCATIONAL ACTIVITIES, INC.	3 4 5 6	APPLE	8
	STICKYBEAR NUMBERS	XEROX EDUCATION PUBLICATIONS	PRE-1 1	APPLE	9
	TEASERS BY TOBBS	SUNBURST COMMUNICATIONS	3 4 5 6 7 8 9 10 11 12	APPLE	8
	THE ARITHMETIC CLASSROOM: FRACTIONS/ADD AND SUBTRACT	STERLING SWIFT PUBLISHING CO.	4 5 6 7 8	APPLE	5
	THE ARITHMETIC CLASSROOM: DECIMALS	STERLING SWIFT PUBLISHING CO.	4 5 6 7 9	APPLE	5
	WHOLE NUMBERS PRACTICE (PLATO)	CONTROL DATA PUBLISHING CO.	5 6 7 8	APPLE	9
MISC.	FACEMAKER	SPINNAKER SOFTWARE	PRE-1 1 2 3	APPLE	8
	KRELL'S COLLEGE BOARD SAT	KRELL SOFTWARE CORPORATION	9 10 11 12	APPLE	7
MUSIC	KEYBOARD ORGAN	ATARI PROGRAM EXCHANGE	4 5 6 7 8 9 10 11 12	ATARI	5
PHYSICAL EDUCATION	SPORTS STATS	TIES		APPLE	9
PROBLEM SOLVING	CHECKERS	ODESTA	4 5 6 7 8 9 10 11 12 POST.	APPLE	6
	CHESS	ODESTA	4 5 6 7 8 9 10 11 12 POST.	APPLE	6
	MIND BENDERS, A3	MIDWEST PUBLICATIONS	4 5 6 7 8 9 10 11 12 POST.	APPLE	9
	MIND BENDERS, B1	MIDWEST PUBLICATIONS	4 5 6 7 8 9 10 11 12 POST.	APPLE	9
	ODIN	ODESTA	4 5 6 7 8 9 10 11 12 POST.	APPLE	6
	THE FACTORY	SUNBURST COMMUNICATIONS	4 5 6 7 8 9 10 11 12	ATARI	9
SCHOOL READINESS	JUGGLES' RAINBOW	THE LEARNING COMPANY	PRE-1 1	APPLE	6
	MY FIRST ALPHABET	ATARI, INC.	PRE-1 1	ATARI	4
SCIENCES	BIOLOGY: THE CELL	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	10 11 12	APPLE	9
	CHEMISTRY -- ACIDS AND BASES	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	10 11 12 POST.	APPLE	7
	CIRCULATION (ORGANS)	MICRO POWER & LIGHT CO.	5 6 7 8 9 10 11 12	APPLE	2
	COMPUTER SIMULATED PHYSICS EXPERIMENTS	EDUTECH	11 12 POST.	APPLE	4
	ENERGY CZAR	ATARI, INC.	7 8 9 10 11 12	ATARI	4
	EVOLUT	CONDUIT	11 12 POST.	APPLE	4
	GENETICS	TIES	4 5 6 7 8	AP	9
	MILLIKAN	MENTOR SOFTWARE, INC.	11 12 POST.	APPLE	4
	NEWTON	CONDUIT	11 12 POST.	APPLE	4
	ODELL LAKE	MECC	4 5 6 7 8 9 10	APPLE	2
	PHYSICS: ELEMENTARY MECHANICS	CONTROL DATA PUBLISHING CO.	9 10 11 12	APPLE	9

SUBJECT	TITLE	PRODUCER	LEVEL	HRDWR.	SET
	(PLATO)				
	PRECISION TIMER	VERNIER SOFTWARE	10 11 12 POST.	APPLE	7
	ROCKY'S BOOTS	THE LEARNING COMPANY	3 4 5 6 7 8 9 10 11 12 POST.	APPLE	6
	THE ATOM	MICRO-ED, INC.	6 7 8 9 10	APPLE	6
	THREE MILE ISLAND	MUSE SOFTWARE	12 POST.	APPLE	6
	TITRATION	MENTOR SOFTWARE, INC.	10 11 12 POST.	APPLE	4
	VOLCANOES	EARTHWARE COMPUTER SERVICES	9 10 11 12 POST.	APPLE	3
SOCIAL STUDIES	CARTELS AND CUTTHROATS	STRATEGIC SIMULATIONS, INC.	8 9 10 11 12	APPLE	8
	DEMO-GRAPHICS	CONDUIT	8 9 10 11 12	APPLE	4
	ELEMENTARY, VOLUME 6 -- SOCIAL STUDIES	MECC	3 4 5 6 7 8	APPLE	8
	GEOGRAPHY	MECC	4 5 6 7 8 9 10	ATARI	7
	GEOGRAPHY EXPLORER: USA	INSTANT SOFTWARE, INC.	4 5 6 7 8 9 10 11	TRS-80	1
	MAP READING	MICRO POWER & LIGHT CO.	4 5 6 7	APPLE	8
	PRESIDENT ELECT	STRATEGIC SIMULATIONS, INC.	5 6 7 8 9 10	APPLE	8
	SOCIAL STUDIES, VOLUME 2	MECC	4 5 6 7 8 9 10 11 12	APPLE	8
	THE DECISION SHOP	THE CHILDREN'S MUSEUM OF INDIANAPOLIS	4 5 6 7 8	APPLE	7
	THE EXPLORING AMERICA SERIES	AQUARIUS	7 8 9 10	APPLE	9
	THE MARKET PLACE	MECC	3 4 5 6 7 8	ATARI	7
TEACHER UTILITY	CREATE FILL-IN-THE-BLANKS	HARTLEY COURSEWARE, INC.	PRE-1 1 2 3 4 5 6	APPLE	5
	CREATE SKILLS--ELEMENTARY/ INTERMEDIATE	HARTLEY COURSEWARE, INC.	1 2 3 4 5 6 7 8	APPLE	5
	EASY GRADER	ATARI PROGRAM EXCHANGE	1 2 3 4 5 6 7 8 9 10 11 12	ATARI	5
	THE SHELL GAMES EDUCATION SERIES	APPLE COMPUTER, INC.	4 5 6 7 8 9 10 11 12	APPLE	1
	THE WIZARD	PROGRAMS UNLIMITED	4 5 6 7 8 9 10 11 12	TRS-80	3
TESTING	TEST BANK	ADVANCED TECHNOLOGY APPLICATIONS	1 2 3 4 5 6 7 8 9 10 11 12	TRS-80	1 5
VOCATIONAL EDUCATION	CAREER DIRECTIONS	SYSTEMS DESIGN ASSOCIATES	11 12 POST.	APPLE	8

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TITLE	PRODUCER	SUBJECT	LEVEL	HRDWR.	SET
ADDITION AND SUBTRACTION 1 AND 2	SCOTT, FORESMAN AND COMPANY	MATHEMATICS	PRE-1 1 2 3	TI	3
ADVERTISING TECHNIQUES	MICRO POWER & LIGHT CO.	LANGUAGE ARTS	5 6 7 8 9 10 11 12	APPLE	9
ALIEN ADDITION	DLM, INC.	MATHEMATICS	PRE-1 1 2 3 4 5 6 7 8	APPLE	3
ALLIGATOR MIX	DLM, INC.	MATHEMATICS	1 2 3 4 5 6 7 8 9	APPLE	4
ALPHABET KEYBOARD	RANDOM HOUSE, SCHOOL DIVISION	LANGUAGE ARTS	PRE-1 1	TRS-80	3
ALPINE SKIER	DATA COMMAND	LANGUAGE ARTS	6 7 8	APPLE	8
ANTONYMS/SYNONYMS	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	3 4 5 6 7 8	APPLE	5
APPLE & SURFACE	CONDUIT	MATHEMATICS	11 12 POST.	APPLE	4
ARITH-MAGIC	QED, INC.	MATHEMATICS	2 3 4 5 6 7 8 9	APPLE	7
ARITHMETIC OF FUNCTIONS	MATH SOFTWARE	MATHEMATICS	9 10 11 12 POST.	APPLE	2
ARITHMETIC RACING	MATH SOFTWARE	MATHEMATICS	4 5 6 7 8 9 10 11	APPLE	2
BASIC ENGLISH SKILLS	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	LANGUAGE ARTS	6 7 8 9 10 11 12	APPLE	5
BIG DOOR DEAL	DATA COMMAND	LANGUAGE ARTS	6 - 12	APPLE	9
BINOMIAL MULTIPLICATION	MATH SOFTWARE	MATHEMATICS	8 9 10 11 12	APPLE	2
BIOLOGY: THE CELL	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	SCIENCES	10 11 12	APPLE	9
BRIDGE TO TERABITHIA	SUNBURST COMMUNICATIONS	LANGUAGE ARTS	5 6 7 8	APPLE	8
BUMBLE GAMES	THE LEARNING COMPANY	MATHEMATICS	PRE-1 1 2 3 4 5	APPLE	7
BUMBLE PLOT	THE LEARNING COMPANY	MATHEMATICS	3 4 5 6 7 8	APPLE	7
CALL OF THE WILD	A/V CONCEPTS CORPORATION	LANGUAGE ARTS	3 4 5 6 7 8 9 10	APPLE	8
CAREER DIRECTIONS	SYSTEMS DESIGN ASSOCIATES	VOCATIONAL EDUCATION	11 12 POST.	APPLE	8
CAREER SCAN IV	NATIONAL EDUCATIONAL SOFTWARE	CAREER EDUCATION	6 7 8 9 10 11 12 POST.	APPLE	9
CARIS	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	LANGUAGE ARTS	PRE-1 1 2 3	APPLE	7
CARTELS AND CUTTHROATS	STRATEGIC SIMULATIONS, INC.	SOCIAL STUDIES	8 9 10 11 12	APPLE	8
CHECKERS	ODESTA	PROBLEM SOLVING	4 5 6 7 8 9 10 11 12 POST.	APPLE	6
CHEMISTRY -- ACIDS AND BASES	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	SCIENCES	10 11 12 POST.	APPLE	7
CHESS	ODESTA	PROBLEM SOLVING	4 5 6 7 8 9 10 11 12 POST.	APPLE	6
CIRCULATION (ORGANS)	MICRO POWER & LIGHT CO.	SCIENCES	5 6 7 8 9 10 11 12	APPLE	2
CLOCK	HARTLEY COURSEWARE, INC.	MATHEMATICS	1 2 3	APPLE	6
COMPREHENSION POWER PROGRAM	MILLIKEN PUBLISHING CO. AND I/CT, INC.	LANGUAGE ARTS	4 5 6 7 8 9 10 11 12	APPLE	4
COMPUTER GRAPHING EXPERIMENTS	ADDISON-WESLEY PUBLISHING CO.	MATHEMATICS	10 11 12	APPLE	6
COMPUTER LITERACY: INTRO. (PLATO)	CONTROL DATA PUBLISHING CO.	COMPUTER SCIENCE	6 7 8 9 10 11 12 POST.	APPLE	9
COMPUTER MATH ACTIVITIES, VOLUME 5	ADDISON-WESLEY PUBLISHING CO.	MATHEMATICS	1 2 3 4 5 6 7 8 9	APPLE	9
COMPUTER MATH ACTIVITIES,	ADDISON-WESLEY PUBLISHING CO.	MATHEMATICS	1 2 3 4 5 6 7 8 9	APPLE	7

TITLE	PRODUCER	SUBJECT	LEVEL	HRDWR.	SET
VOLUME 4					
COMPUTER MATH ACTIVITIES, VOLUME 2	ADDISON-WESLEY PUBLISHING CO.	MATHEMATICS	1 2 3 4 5 6 7 8 9	APPLE	7
COMPUTER MATH ACTIVITIES, VOLUME 3	ADDISON-WESLEY PUBLISHING CO.	MATHEMATICS	1 2 3 4 5 6 7 8 9	APPLE	7
COMPUTER MATH ACTIVITIES, VOLUME 1	ADDISON-WESLEY PUBLISHING CO.	MATHEMATICS	1 2 3 4 5 6 7 8 9	APPLE	7
COMPUTER MATH GAMES	ADDISON-WESLEY PUBLISHING CO.	MATHEMATICS	1 2 3 4 5 6 7 8 9	APPLE	6
COMPUTER SIMULATED PHYSICS EXPERIMENTS	EDUTECH	SCIENCES	11 12 POST.	APPLE	4
CONSONANTS/BLENDS	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	1 2 3	APPLE	5
CREATE FILL-IN-THE-BLANKS	HARTLEY COURSEWARE, INC.	TEACHER UTILITY	PRE-1 1 2 3 4 5 6	APPLE	5
CREATE SKILLS--ELEMENTARY/INTERMEDIATE	HARTLEY COURSEWARE, INC.	TEACHER UTILITY	1 2 3 4 5 6 7 8	APPLE	5
CREATE SPELL-IT	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	PRE-1 1 2 3 4 5 6 7 8 9 10	APPLE	5
CREATE VOCABULARY	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	1 2 3 4 5 6 7 8 9 10	APPLE	6
DECIMAL SKILLS	MILTON BRADLEY	MATHEMATICS	5 6 7 8 9	APPLE	8
DECIMALS PRACTICE (PLATO)	CONTROL DATA PUBLISHING CO.	MATHEMATICS	4 5 6 7 8 9	APPLE	9
DEMO-GRAPHICS	CONDUIT	SOCIAL STUDIES	8 9 10 11 12	APPLE	4
DIASCRIPTIVE READING	EDUCATIONAL ACTIVITIES, INC.	LANGUAGE ARTS	3 4 5 6 7 8	APPLE	8
DISCOVER BASIC	STERLING SWIFT PUBLISHING CO.	COMPUTER SCIENCE	7 8 9 10 11 12 POST.	APPLE	6
DIVISION 1	SCOTT, FORESMAN AND COMPANY	MATHEMATICS	3 4 5	TI	7
DRAGON MIX	DLM, INC.	MATHEMATICS	3 4 5 6 7	APPLE	7
EARL'S WORD POWER	GEORGE EARL	LANGUAGE ARTS	4 5 6 7 8 9 10 11 12	APPLE	7
EASY GRADER	ATARI PROGRAM EXCHANGE	TEACHER UTILITY	1 2 3 4 5 6 7 8 9 10 11 12	ATARI	5
ELEMENTARY MATH	MECC	MATHEMATICS	4 5 6	APPLE	7
ELEMENTARY MATHEMATICS CLASS-ROOM LEARNING SYSTEM: WHOLE NUMBERS	STERLING SWIFT PUBLISHING CO.	MATHEMATICS	4 5 6 7	APPLE	4
ELEMENTARY, VOLUME 6 -- SOCIAL STUDIES	MECC	SOCIAL STUDIES	3 4 5 6 7 8	APPLE	8
EMSI-6	EDUCATIONAL MICROSYSTEMS, INC.	MATHEMATICS	3 4 5 6 7 8 9	TRS-80	1
ENERGY CZAR	ATARI, INC.	SCIENCES	7 8 9 10 11 12	ATARI	4
ENGLISH COMPUTORIALS	EDUCULTURE	LANGUAGE ARTS	10 11 12 POST.	APPLE	4
ENGLISH, VOLUME 1	MECC	LANGUAGE ARTS	6 7 8	APPLE	8
ESSENTIAL MATH PROGRAM	RADIO SHACK EDUCATION DIVISION	MATHEMATICS	7 8 9 10 11 12	TRS-80	4
EUCLID GEOMETRY TUTOR	RADIO SHACK EDUCATION DIVISION	MATHEMATICS	9 10 11 12	TRS-80	4
EVOLUT	CONDUIT	SCIENCES	11 12 POST.	APPLE	4
EXPANDED NOTATION	HARTLEY COURSEWARE, INC.	MATHEMATICS	3 4 5	APPLE	6
FACEMAKER	SPINNAKER SOFTWARE	MISC.	PRE-1 1 2 3	APPLE	8
FACTORING WHOLE NUMBERS	QED, INC.	MATHEMATICS	5 6 7 8 9 10 11 12	APPLE	1
FLOPPY TEACHES HOW TO PRINT LETTERS AND NUMERALS	FLOPPY ENTERPRISES	LANGUAGE ARTS	PRE-1 1	APPLE	8

TITLE	PRODUCER	SUBJECT	LEVEL	HRDWR.	SET
FRACTIONS	QED, INC.	MATHEMATICS	5 6 7 8 9 10 11 12	APPLE	1
FRACTIONS PRACTICE (PLATO)	CONTROL DATA PUBLISHING CO.	MATHEMATICS	4 - 9	APPLE	9
FRENCH VOCABULARY BUILDER (PLATO)	CONTROL DATA PUBLISHING CO.	LANGUAGES	7 8 9 10 11 12 POST.	APPLE	9
FUNCTION GRAPHER	MATH SOFTWARE	MATHEMATICS	8 9 10 11 12 POST.	APPLE	2
FUNDAMENTAL MATH I, II, III	RANDOM HOUSE, SCHOOL DIVISION	MATHEMATICS	1 2 3 4 5 6 7 8 9	TRS-80	4
GENETICS	TIES	SCIENCES	4 5 6 7 8	AP	9
GEOGRAPHY	MECC	SOCIAL STUDIES	4 5 6 7 8 9 10	ATARI	7
GEOGRAPHY EXPLORER: USA	INSTANT SOFTWARE, INC.	SOCIAL STUDIES	4 5 6 7 8 9 10 11	TRS-80	1
GERMAN VOCABULARY BUILDER (PLATO)	CONTROL DATA PUBLISHING CO.	LANGUAGES	8 - 12	APPLE	9
GRAMMAR AND WRITING	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	LANGUAGE ARTS	4 5	APPLE	9
GRAMMAR PACKAGE 1	MICRO LEARNINGWARE	LANGUAGE ARTS	4 5	TRS-80	4
GRAMMAR PROBLEMS FOR PRACTICE: HOMONYMS	MILLIKEN PUBLISHING COMPANY	LANGUAGE ARTS	3 4 5 6 7 8 9	APPLE	4
HOME SAFE HOME	MCE, INC.	BASIC LIVING SKILLS	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
HOMONYMS IN CONTEXT	RANDOM HOUSE, SCHOOL DIVISION	LANGUAGE ARTS	3 4 5 6 7 8 9	APPLE	4
INCOME MEETS EXPENSES	MCE, INC.	BASIC LIVING SKILLS	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
INSTRUCTIONAL COMPUTING IN ALGEBRA II	PINELLAS COUNTY SCHOOL SYSTEM	MATHEMATICS	9 10 11 12	APPLE	4
JOB READINESS -- ASSESSMENT AND DEVELOPMENT	MCE, INC.	BASIC LIVING SKILLS	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
JUGGLES' RAINBOW	THE LEARNING COMPANY	SCHOOL READINESS	PRE-1 1	APPLE	6
KAREL THE ROBOT	CYBERTRONICS INTERNATIONAL INC	COMPUTER SCIENCE	9 10 11 12	APPLE	3
KEYBOARD ORGAN	ATARI PROGRAM EXCHANGE	MUSIC	4 5 6 7 8 9 10 11 12	ATARI	5
KRELL'S COLLEGE BOARD SAT	KRELL SOFTWARE CORPORATION	MISC.	9 10 11 12	APPLE	7
LE VOCABULAIRE FRANCAIS	ISLAND SOFTWARE	LANGUAGES	7 8 9 10 11 12	APPLE	9
LEMONADE	ATARI PROGRAM EXCHANGE	MATHEMATICS	4 5 6 7 8 9 10 11 12	ATARI	5
LESSONS IN ALGEBRA	GEORGE EARL	MATHEMATICS	7 8 9 10	APPLE	6
LETTER RECOGNITION	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	PRE-1 1	APPLE	5
LIBRARY SKILLS: WHAT'S THERE AND HOW TO FIND IT	MICRO POWER & LIGHT CO.	LIBRARIES	4 5 6 7 8 9 10 11 12	APPLE	2
LIMACONS AND THEIR AREAS	MATH SOFTWARE	MATHEMATICS	11 12 POST.	APPLE	2
LIMITS OF SEQUENCES	MATH SOFTWARE	MATHEMATICS	11 12 POST.	APPLE	2
MAGIC SPELLS	ADVANCED LEARNING TECHNOLOGY, INC.	LANGUAGE ARTS	1 2 3 4 5 6 7 8	APPLE	5
MAP READING	MICRO POWER & LIGHT CO.	SOCIAL STUDIES	4 5 6 7	APPLE	8
MASTER TYPE	LIGHTNING SOFTWARE	BUSINESS EDUCATION	4 5 6 7 8 9 10 11 12 POST.	APPLE	8
MATH CONCEPTS	HARTLEY COURSEWARE, INC.	MATHEMATICS	2 3 4 5 6	APPLE	5
FACTS/NUMBER AND MATH	COLORADO CYPHERNETICS, INC.	MATHEMATICS	3 4 5 6	APPLE	6

TITLE	PRODUCER	SUBJECT	LEVEL	HRDWR.	SET
MASTERY A, B, C, AND D					
MATH SEQUENCES	MILLIKEN PUBLISHING COMPANY	MATHEMATICS	1 2 3 4 5 6 7 8	APPLE	2
MATH SKILLS -- ELEMENTARY	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	MATHEMATICS	2 3 4 5 6	APPLE	6
MATH SKILLS -- JUNIOR HIGH	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	MATHEMATICS	7 8 9	APPLE	7
MATH STRATEGY	BEHAVIORAL ENGINEERING	MATHEMATICS	2 3 4 5 6 7 8	APPLE	5
MATH STRATEGY: LINEAR SEARCH GAMES	CREATIVE PUBLICATIONS, INC.	MATHEMATICS	5 6 7 8	APPLE	3
MATHEMATICS ASSESSMENT/ PRESCRIPTIVE PROGRAM, LVL. 5-7	READER'S DIGEST SERVICES, INC.	MATHEMATICS	5 6 7	APPLE	8
MATHEMATICS DRILL AND PRACTICE	COMPAK, INC.	MATHEMATICS	1 2 3 4 5 6 7 8	APPLE	2
METRIC DRILL	HARTLEY COURSEWARE, INC.	MATHEMATICS	4 5 6 7 8	APPLE	5
MILLIKAN	MENTOR SOFTWARE, INC.	SCIENCES	11 12 POST.	APPLE	4
MIND BENDERS, A3	MIDWEST PUBLICATIONS	PROBLEM SOLVING	4 5 6 7 8 9 10 11 12 POST.	APPLE	9
MIND BENDERS, B1	MIDWEST PUBLICATIONS	PROBLEM SOLVING	4 5 6 7 8 9 10 11 12 POST.	APPLE	9
MINUS MISSION	DLM, INC.	MATHEMATICS	1 2 3 4 5 6 7 8 9 10 11 12	APPLE	4
MIXED NUMBERS	MILTON BRADLEY	MATHEMATICS	5 6 7 8 9	APPLE	7
MONEY MANAGEMENT ASSESSMENT SERIES	MCE, INC.	BASIC LIVING SKILLS	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
MOPTOWN	THE LEARNING COMPANY	MATHEMATICS	1 2 3 4 5 6 7 8 9 10 11 12	APPLE	7
MORE ALGEBRA: COMP	TYCOM ASSOCIATES	MATHEMATICS	9 10 11 12	PET	4
MORE ALGEBRA: DISC	TYCOM ASSOCIATES	MATHEMATICS	9 10 11 12	PET	4
MORE ALGEBRA: QUAD	TYCOM ASSOCIATES	MATHEMATICS	9 10 11 12	PET	4
MORE ALGEBRA: SIMUL	TYCOM ASSOCIATES	MATHEMATICS	9 10 11 12	PET	4
MORE ALGEBRA: SLOPE	TYCOM ASSOCIATES	MATHEMATICS	9 10 11 12	PET	4
MULTIPLE SKILLS	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	1 2 3	APPLE	6
MY FIRST ALPHABET	ATARI, INC.	SCHOOL READINESS	PRE-1 1	ATARI	4
NEWTON	CONDUIT	SCIENCES	11 12 POST.	APPLE	4
NOUNS/PRONOUNS	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	3 4 5 6	APPLE	5
NUMBER BLAST	ATARI PROGRAM EXCHANGE	MATHEMATICS	1 2 3 4 5 6 7 8 9 10 11 12	ATARI	4
NUMBER WORDS, LEVEL 1	HARTLEY COURSEWARE, INC.	MATHEMATICS	2 3 4	APPLE	6
NUMBER WORDS, LEVEL 2	HARTLEY COURSEWARE, INC.	MATHEMATICS	2 3 4 5	APPLE	6
NUMERIC DATA ENTRY PRACTICE	RADIO SHACK EDUCATION DIVISION	BUSINESS EDUCATION	9 10 11 12	TRS-80	4
ODELL LAKE	MECC	SCIENCES	4 5 6 7 8 9 10	APPLE	2
ODIN	ODESTA	PROBLEM SOLVING	4 5 6 7 8 9 10 11 12 POST.	APPLE	6
OUR WEIRD AND WACKY WORLD/ CRITICAL READING PROGRAM	EDUCATIONAL ACTIVITIES, INC.	LANGUAGE ARTS	2 3 4 5	APPLE	6
OUR WEIRD AND WACKY WORLD/ LITERAL COMPREHENSION PROGRAM	EDUCATIONAL ACTIVITIES, INC.	LANGUAGE ARTS	3 4 5	APPLE	6
PERSONAL GRAPHICS	LITTLE, BROWN & CO.	COMPUTER SCIENCE	9 10 11 12 POST.	APPLE	9
PHONET	TIES	LANGUAGE ARTS	1 2 3 4 5 6	APPLE	6
ICS: ELEMENTARY MECHANICS	CONTROL DATA PUBLISHING CO.	SCIENCES	9 10 11 12	APPLE	9

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(PLATO)					
PIK-PEK-PUT	DATA COMMAND	LANGUAGE ARTS	5 6 7 8	APPLE	9
POISON PROOF YOUR HOME	MCE, INC.	BASIC LIVING SKILLS	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1
PRECISION TIMER	VERNIER SOFTWARE	SCIENCES	10 11 12 POST.	APPLE	7
PRESCRIPTIVE MATH DRILL	HARTLEY COURSEWARE, INC.	MATHEMATICS	1 2 3 4 5 6 7 8	APPLE	6
PRESIDENT ELECT	STRATEGIC SIMULATIONS, INC.	SOCIAL STUDIES	5 6 7 8 9 10	APPLE	8
READ AND SOLVE MATH PROBLEMS	EDUCATIONAL ACTIVITIES, INC.	MATHEMATICS	3 4 5 6	APPLE	8
READING FLIGHT	SCOTT, FORESMAN AND COMPANY	LANGUAGE ARTS	6	TI	7
READING RALLY	SCOTT, FORESMAN AND COMPANY	LANGUAGE ARTS	5	TI	7
READING ROUNDUP	SCOTT, FORESMAN AND COMPANY	LANGUAGE ARTS	4	TI	7
RHYMES AND RIDDLES	SPINNAKER SOFTWARE	LANGUAGE ARTS	PRE-1 1 2 3 4	APPLE	8
RIDDLE ME THIS	DATA COMMAND	LANGUAGE ARTS	4 5 6 7	APPLE	8
ROCKY'S BOOTS	THE LEARNING COMPANY	SCIENCES	3 4 5 6 7 8 9 10 11 12 POST.	APPLE	6
ROOTS/AFFIXES	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	3 4 5 6 7 8	APPLE	5
SENTENCE DIAGRAMMING	AVANT-GARDE CREATIONS	LANGUAGE ARTS	7 8 9 10 11 12	APPLE	4
SENTENCES	MICRO POWER & LIGHT CO.	LANGUAGE ARTS	5 6 7 8 9 10 11 12	APPLE	4
SIMS	TIES	LANGUAGE ARTS	1 2 3 4 5 6	APPLE	6
SOCIAL STUDIES, VOLUME 2	MECC	SOCIAL STUDIES	4 5 6 7 8 9 10 11 12	APPLE	8
SPANISH VOCABULARY BUILDER (PLATO)	CONTROL DATA PUBLISHING CO.	LANGUAGES	8 9 10 11 12	APPLE	9
SPECIAL NEEDS, VOL.1-SPELLING	MECC	LANGUAGE ARTS	2 3 4 5 6	APPLE	9
SPEED READER	DAVIDSON AND ASSOCIATES	LANGUAGE ARTS	7 8 9 10 11 12	APPLE	5
SPELLING STRATEGY	BEHAVIORAL ENGINEERING	LANGUAGE ARTS	2 3 4 5 6 7 8	APPLE	5
SPORTS STATS	TIES	PHYSICAL EDUCATION		APPLE	9
STICKYBEAR NUMBERS	XEROX EDUCATION PUBLICATIONS	MATHEMATICS	PRE-1 1	APPLE	9
STORY MACHINE	SPINNAKER SOFTWARE	LANGUAGE ARTS	PRE-1 1 2 3	APPLE	8
TANK TACTICS	DATA COMMAND	LANGUAGE ARTS	3 - 12	APPLE	9
TEASERS BY TOBBS	SUNBURST COMMUNICATIONS	MATHEMATICS	3 4 5 6 7 8 9 10 11 12	APPLE	8
TENNIS ANYONE?	DATA COMMAND	LANGUAGE ARTS	4 5 6 7 8	APPLE	8
TEST BANK	ADVANCED TECHNOLOGY APPLICATIONS	TESTING	1 2 3 4 5 6 7 8 9 10 11 12	TRS-80	1.5
THE ARITHMETIC CLASSROOM: FRACTIONS/ADD AND SUBTRACT	STERLING SWIFT PUBLISHING CO.	MATHEMATICS	4 5 6 7 8	APPLE	5
THE ARITHMETIC CLASSROOM: DECIMALS	STERLING SWIFT PUBLISHING CO.	MATHEMATICS	4 5 6 7 8	APPLE	5
THE ATOM	MICRO-ED, INC.	SCIENCES	6 7 8 9 10	APPLE	6
THE DECISION SHOP	THE CHILDREN'S MUSEUM OF INDIANAPOLIS	SOCIAL STUDIES	4 5 6 7 8	APPLE	7
THE EXPLORING AMERICA SERIES	AQUARIUS	SOCIAL STUDIES	7 8 9 10	APPLE	9
THE FACTORY	SUNBURST COMMUNICATIONS	PROBLEM SOLVING	4 5 6 7 8 9 10 11 12	ATARI	9
THE GERMAN/RUSSIAN HANGMAN	GEORGE EARL	LANGUAGES	9 10 11 12 P	AP	9
THE MARKET PLACE	MECC	SOCIAL STUDIES	3 4 5 6 7 8	ATARI	7
THE PROGRAMMABLE CUBE	METACOMET SOFTWARE	COMPUTER SCIENCE	9 10 11 12 POST.	APPLE	6
THE SHELL GAMES EDUCATION SERIES	APPLE COMPUTER, INC.	TEACHER UTILITY	4 5 6 7 8 9 10 11 12	APPLE	1

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THE SPANISH HANGMAN	GEORGE EARL	LANGUAGES	7 8 9 10 11 12	APPLE	4
THE WESTING GAME	SUNBURST COMMUNICATIONS	LANGUAGE ARTS	5 6 7 8	APPLE	8
THE WIZARD	PROGRAMS UNLIMITED	TEACHER UTILITY	4 5 6 7 8 9 10 11 12	TRS-80	3
THREE MILE ISLAND	MUSE SOFTWARE	SCIENCES	12 POST.	APPLE	6
TITRATION	MENTOR SOFTWARE, INC.	SCIENCES	10 11 12 POST.	APPLE	4
TOUCH TYPING	COVE VIEW PRESS SOFTWARE	BUSINESS EDUCATION	5 6 7 8 9 10 11 12	TRS-80	4
TYPING TUTOR	MICROSOFT CONSUMER PRODUCTS	BUSINESS EDUCATION	8 9 10 11 12	APPLE	2
VERB VIPER	DLM, INC.	LANGUAGE ARTS	3 4 5 6	APPLE	9
VERBS	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	2 3 4 5	APPLE	5
VOCABULARY DOLCH	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	PRE:1 1 2 3	APPLE	5
VOCABULARY SKILLS: CONTEXT CLUES	MILTON BRADLEY	LANGUAGE ARTS	5 6 7 8 9	APPLE	8
VOCABULARY SKILLS: PREFIXES, SUFFIXES AND ROOT WORDS	MILTON BRADLEY	LANGUAGE ARTS	6 7 8 9	APPLE	8
VOLCANOES	EARTHWARE COMPUTER SERVICES	SCIENCES	9 10 11 12 POST.	APPLE	3
VOWELS	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	2 3	APPLE	6
WHO, WHAT, WHERE, WHEN	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	1 2 3 4 5 6	APPLE	6
WHOLE NUMBERS PRACTICE (PLATO)	CONTROL DATA PUBLISHING CO.	MATHEMATICS	5 6 7 8	APPLE	9
WORD FAMILIES	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	PRE-1 1 2	APPLE	5
WORD GAMES	MECC	LANGUAGE ARTS		ATARI	7
WORD INVASION	DLM, INC.	LANGUAGE ARTS	5 6 7 8	APPLE	9
WORD MASTER	DLM, INC.	LANGUAGE ARTS	4 5 6 7	APPLE	8
WORD MEMORY PROGRAM	I/CT, INC.	LANGUAGE ARTS	1	APPLE	8
WORD SEARCH	HARTLEY COURSEWARE, INC.	LANGUAGE ARTS	2 3 4 5 6	APPLE	5
WORDMAN	DLM, INC.	LANGUAGE ARTS	1 2 3 4 5 6	APPLE	9
WORDWATCH	INSTANT SOFTWARE, INC.	LANGUAGE ARTS	5 6 7 8 9	TRS-80	4
WORDWRIGHT	ENCYCLOPEDIA BRITANNICA EDUCATIONAL CORP.	LANGUAGE ARTS	4 5 6 7 8 9 10 11 12	APPLE	7
YOU CAN BANK ON IT	MCE, INC.	BASIC LIVING SKILLS	1 2 3 4 5 6 7 8 9 10 11 12 PS	APPLE	1

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