
K-5 Educational Software Guide

Worthington Parent and Teachers Association (PTA)
Technology Committee

The PTA Technology Committee of the Worthington Elementary School prepared this educational software guide to assist parents and teachers in purchasing software for children. Worthington, as a kindergarten through 5th grade elementary school, is the focus for the grade ranges of the software rated in this guide.

This guide isn't meant to be a definitive authority of current commercial educational software on the market, but, rather, it's a guide to assist you in what qualities to look for in software before you purchase. This guide provides a starting point of things you may choose to consider when purchasing educational software and a listing of some educational software currently on the market. Noncommercial software, such as those available electronically from the Internet, CompuServe, America Online and sold by EDUCORP, isn't considered in this guide, although some of it is very good. The PTA Technology Committee in no way endorses any software listed in this document.

If you're interested in learning more about available educational software, we suggest reading the books listed as references for this evaluation or visiting your local library or bookstore. The more you read about educational software, the more informed you'll be and the better able to meet the learning and/or entertainment objectives you may wish to establish when purchasing educational software.

This software evaluation is not to be construed as an endorsement of any commercial software by the Worthington Public School System, Howard County, Maryland, USA; its teachers; the PTA; or the Howard County School Board.

1. Getting Started

What should you consider when purchasing educational software? We recommend that you establish learning objectives, find software that meet those objectives, then choose among them by purchasing software that are compatible with your computer system and within your budget. Let's go through these steps.

1.1 Learning Objectives

Unless the software is to be used strictly for entertainment, you should always consider what you want your child to learn from using it. According to most current studies of educational software for young children, software should possess the following attributes for greatest educational value: easy for a child to use without adult supervision; open-ended and

exploratory; able to grow on demand with the child; quick responses to a child's actions; clear sound, color graphics, and animation; appropriately challenging; lively and entertaining; and a builder of self-esteem (Haughland and Shade 1990; Hohmann 1990; Salpeter 1992). Minimizing the necessity of adult supervision or tutorship doesn't imply that adult interaction is impossible or undesirable. It means that children are able to use the software without adult supervision (often by virtue of its graphical, spoken, and mouse interface) and, hence, often feel heightened satisfaction and empowerment from such software. This capability is especially effective in environments where a computer is always available and a children's computer interface, such as Edmark's KidDesk or Apple's At Ease, is used. Some software (e.g., Edmark's Millie's Math House) offers modes that allow the child to choose levels of difficulty and the amount of adult interaction.

The learning objectives used in this guide are based upon the above criteria and public school curricula for the listed age ranges. Parents often seek software that will directly help their children with school. For example, if your child needs additional tutoring in mathematics and is in the second grade, we recommend that you consult with your child's teacher to ensure that you purchase software that's compatible with the second grade mathematics curriculum and your child's current abilities. You may prefer different learning objectives or have more open ended goals (e.g., exploration, drawing). The learning objective should be kept simple and within the capabilities of your child. Do not purchase software that will be so difficult to use that your child becomes discouraged. Look for software that is fun and challenging.

1.2 Purchasing Software

We highly recommend that you check out software before you buy it. This is usually accomplished by seeing the same software at a friend's house, library, or school; visiting a software store; or buying the software with a return guarantee. Some publishers offer money back guarantees and a few software vendors allow you to return software within a reasonable time (usually 1 week) provided that you have not damaged the software, its documentation, warranty cards, and packaging.

2. Is The Software Compatible With My Computer System?

Finding software that will work on your computer system is usually accomplished by reading from their catalog or asking the software vendor or publisher on which computer systems the software will efficiently run. Here's what you'll need to know about your computer to determine if a particular piece of software is compatible with your computer system.

2.1 Matching Your Computer to the Software

Software vendors usually separate their software based upon

computer type. Once you've found software for your type of computer, you need to be sure that it's compatible with your computer's specific processor and operating system (OS). To select compatible software, it's unnecessary to fully understand the details of your computer type, processor, and OS, you only need to know what you have. Some popular configurations, hopefully yours, are listed below by computer type.

2.1.1 IBM PC Compatible (I)

IBM personal computers (PCs) and IBM PC compatibles (e.g., AST, Compaq, Dell, Gateway, Tandy) use various processors such as 8088, '286, '386, '486, or Pentium. The model of the processor is usually found on the front panel of the computer. You'll also need to know your operating system and its version number. PCs generally run the Microsoft Disk Operating System (MS-DOS or simply DOS) or DOS with Windows. Type the command "ver" at the DOS prompt (usually C>) to find out the version number (e.g., DOS 6.0).

2.1.2 Apple (A)

Apple Computer, Inc., makes Apple IIe and used to make Apple II GS computers, which run DOS 3.3 or ProDOS operating systems. Apple II GS computers can run many Apple II programs, but the reverse isn't true.

2.1.3 Macintosh (M)

Apple Computer, Inc., also makes the Macintosh series of computers (e.g., Macintosh II, LC, Performa, Classic, Centris, Quadra), which run System 7.1 (or older version numbers; e.g., System 6.0.4). To see this information, pull down the Apple menu from the menu bar and choose "About This Macintosh..." (or "About the Finder...") for your model designation, System Software version number (OS), and Total Memory.

2.1.4 Amiga, Atari, Commodore (C), NeXT and others

For any computers we haven't mentioned (e.g., Amiga, Atari, Commodore, and NeXT), match your machine, its processor, and OS to the software's requirements.

2.2 Random Access Memory

The amount of random access memory (RAM) within a computer is measured in thousands (K) or millions (M) of bytes. Most PC software usually takes at least 640K bytes of RAM, while others may take a few million bytes of RAM (e.g., 2M RAM). Your computer operating manual may state how much RAM your computer has (assuming that you haven't changed it). You may also notice how much RAM your computer has when you turn it ON. On a Macintosh, the amount of RAM is the number following "Total Memory" shown in "About This Macintosh..." under the Apple menu. On a PC, type "mem" or "chkdsk" at the DOS prompt to determine the amount of RAM.

2.3 Disk Space

Most modern software that features sound and color animation requires a hard disk. If you're not going to run the software from floppy disks, find out how much hard drive disk space it requires. If you're going to install the software onto your hard drive, make sure that you have enough disk space. Like RAM, hard disk space is measured in millions of bytes or megabytes (MB). On a Macintosh, double click the hard drive icon (usually in the upper right corner of the screen), the hard drive's window opens and the available disk space shows in the upper right corner of the hard drive's window (if you don't see this, choose "by Icon" from View on the menu bar). On a PC, type the command "dir" at the DOS prompt and the unused number of bytes will be displayed following your directory (1 MB = 1,048,576 bytes).

2.4 Media

Be sure you can read the media that the software is delivered on. Software is usually delivered on the following media: 5.25" floppy disks, 3.5" double density floppy disks, 3.5" high density floppy disks, or Compact Disc Read Only Memory (CD-ROM).

2.5 Peripherals

You should ask whether other peripheral devices are needed, such as a joystick, mouse, sound input, sound output, printer, CD-ROM, or special graphics color monitor. Macintoshes generally use 12" or 13" color monitors. PCs generally use CGA, EGA, VGA, or Super VGA monitors (some PCs display this information when turned ON).

2.6 Further Information

If you're ever in doubt about these matters and your software vendor can't help, we suggest that you visit your library or bookstore and pick up a book or magazine that gives you a simple tutorial on the workings of a computer. If you really want to learn more about computers, we suggest that you join a computer users group; attend a workshop; or take a computer class, often given by community colleges.

3. Evaluation

We used several independent educational software publications, listed in the References, along with our own Worthington Software Database Form surveys to come up with a comprehensive evaluation of the listed software. We did not attempt to rate all available software, but only software that was readily available in the market for personal computers and that had undergone some type of independent evaluation by an educational institution.

We limited our evaluations to the categories of reading/letters, mathematics/numbers, social studies and science, and multidisciplinary (primarily mathematics and reading combined into one program) software. We made no attempt to evaluate

language, music, keyboard, spatial relationships, clock reading, writing, environment, animals, drawing, graphics, or other educational software. Perhaps we'll undertake these evaluations at a later date.

We evaluated software based upon a particular educational institution's and/or independent evaluator's evaluations. In each case, cited software should fulfill its overall learning objective(s) and be relatively easy to use, as explained in section 1.1. We used the following evaluation categories:

A- to A+: Meets or exceeds learning objectives and is user friendly with absolute minimum adult supervision or tutorship.

B- to B+: Meets standard learning objectives and can be used with minimum adult supervision or tutorship.

C- to C+: Meets minimum learning objectives and should be used under adult supervision or tutorship.

3.1 Publishers

We have included a complete name, address and telephone number of each listed software publisher evaluated in this guide. You may want to call the publisher before you purchase their software and ask for their (often free) software catalog.

3.2 Sources

We also have enclosed the names of a few software vendors that you may also contact to purchase software. These vendors often provide very competitive pricing for the evaluated software and overnight delivery service.

4. The Ratings

Listed for each piece of software is the age range (as recommended by our survey), our evaluation grade (using the criteria explained above), the computers for which the software is available (at the time of this writing!), the publisher, and approximate cost. Please note that software is often ported to many computers and, thus, the COMP column is highly subject to change (especially for popular software). Also note that publishers often merge, making the PUBLISHER column subject to change, too.

Comments

We welcome your comments on this guide. You can contact the chairperson of the Worthington PTA Technology Committee by mail:

*Dr. Joe Campbell
4795 Ilkley Moor Lane*

Ellicott City, MD 21043-6531
USA

or, preferably, via electronic mail at

Internet: jpcampb@afterlife.ncsc.mil (or
74040.305@compuserve.com)
CompuServe: 74040,305
America Online: CELP

References

"Parent's Guide To Highly Rated Educational Software." Educational Products Information Exchange (EPIE) Institute (800-635-5345), 1989.

Buckleitner, W. "High/Scope Buyer's Guide to Children's Software 1992." Ypsilanti: The High/Scope Press (313-485-2000), 1992.

Haughland, S. and D. Shade. "Developmental Evaluations of Software for Young Children, 1990 Edition." Albany: Delmar (800-347-7707), 1990.

Hohmann, C. "Young Children & Computers." Ypsilanti: The High/Scope Press (313-485-2000), 1990.

Neill, S. and G. Neill. "Annual Guide To Highest Rated Educational Software." ASCD (800-521-8110), 1993.

Salpeter, J. "Kids & Computers: A Parent's Handbook." Carmel: Sams (in bookstores), 1992.

4.1 Reading/Letters

SOFTWARE NAME		AGES		EVAL	COMP	PUBLISHER	COST
Alphabet Blocks	3 up	B		I M	Bright Star	3	
Animal Alphabet and Other Things	3-6	B	A		Queue	2	
Dinosaur Discovery Kit	3-8	C	?		First Byte	2	
Easy as ABC	3-6	B	A	ICM	Queue	2	
Electric Crayon ABCs	3 up	B	A I		Merit Software	1	
First Letter Fun	3-6	B	A		MECC	3	
Flodd, the Bad Guy	2-6	C	A I M		Tom Snyder	2	
Fun From A to Z	3-6	B	A		MECC	2	
Jack and the Beanstalk	2-6	C	A I M		Tom Snyder	2	
Just Grandma and Me	3-8	B+		I M	Broderbund (CD)	2	
Kids Time	3-8	B	2	M	Great Wave	2	
McGee	2-6	C+	2 I M		Lawrence Prod	2	
McGee At the Fun Fair	2-6	B-	2 I M		Lawrence Prod	2	
McGee Visits Katie's Farm	2-6	B	2 I M		Lawrence Prod	2	
Mickey's ABCs	2-5	B+	I		Walt Disney	2	
Midnight Rescue (Super Solvers)	7-14	B-	I M		The Learning Co	2	

Milliken Storyteller	4-7	B-	2 I M	Milliken Pub Co	2
Muppet Word Book	3-6	B-	A I	Sunburst Comms	3
Number Munchers	9 up	B-	A I M	MECC	2
Paint With Words	3-7	C-	A	MECC	2
Phonics Plus	4-8	C+*	I	Stone	2
Pictures, Letters and Sounds	5-6	C+	A	Hartley Course	2
Playroom, The	3-7	A*	A I M	Broderbund	2
Puzzle Story Book	3-8	C-	?	First Byte	2
Reader Rabbit 1	3-7	B-*	A2 ICM	The Learning Co	2
Reader Rabbit 2	5-8	B*	I M	The Learning Co	3
Reading and Me	4-7	B-*	A I	Davidson	2
Reading Comprehension	6-7	B-	A I	Houghton Mifflin	4
Reading Maze	3-7	C	M	Great Wave	2/3
Spell It Plus	6 up	B-	A I M	Davidson	2
Spellbound					
(Super Solvers)	7-12	C+	I M	The Learning Co	2
Spinnaker Reading 1 (Peter Rabbit)	3-6	C+	A	Queue	2
Stickybear Reading	5-8	C+	A I C	Optimum Res	2
Super Munchers	8 up	B-	I M	MECC	2
Word Munchers	6-10	B-	A I M	MECC	2

*Currently used by Worthington students at home.

**Software that performs multiple functions such as math and reading.

COMPUter: A = Apple, 2 = Apple IIGS specific (many A are 2 compatible),
I = IBM PC compatible, C = Commodore 64, M = Macintosh

COST: 1 = less than \$25.00 2 = \$25.01 - \$50.00
3 = \$50.01 - \$75.00 4 = greater than \$75.01

4.2 Mathematics/Numbers

SOFTWARE NAME	AGES	EVAL	COMP	PUBLISHER	COST
Alligator Mix	7-9	C+	A I C	DLM	2
Arithmetic Critters	5-7	C	A	MECC	3
Balancing Bear	6-10	C+	A I	Sunburst Comms	3
Base Ten Blocks	5-12	B	2 M	The Learning Box	3
Berenstain Bears Learn About Counting	4-7	C	I	Compton's New	2
Counting Critters 1.0	3-6	B	A	MECC	2
Decimal & Fraction Maze	8-13	B-	M	Great Wave	2/3
Dragon Mix	9-12	B+	A I C	DLM	2
Jumping Math Flash	7-10	B	A	Mindscape	2
Kids Math	3-8	B	M	Great Wave	2
Learn to Add	3-7	C	A I C	Queue	1
Math and Me	3-6	B	A I	Davidson	2
Math Blaster Plus	6-12	A*	A2 I M	Davidson	2/3
Math Blaster Mystery	10 up	B	A I M	Davidson	2
Math Magic	5-10	C	A I M	Mindplay	2

Math Rabbit	5-7	C	A2I M	The Learning Co	2
Math Shop	10 up	B-	A I M	Scholastic	2
Math Shop Jr.	6-9	C+	A I M	Scholastic	2
Mickey's 1,2,3's	2-5	C	I	Walt Disney	2
Millie's Math House	2-6	B+*	I M	Edmark	2
Number Farm	3-6	B+	A IC	DLM	2
Number Maze	5-12	B-	M	Great Wave	2/3
Number Munchers	8 up	B	A I M	MECC	2
Numbers Count	3 up	B-	A IC	Merit Software	1
Operation Neptune	10 up	B-	I	The Learning Co	3
Outnumbered					
(Super Solvers)	7-14	B+*	I M	The Learning Co	2/3
Stickybear Math	6-9	B-	A IC	Optimum Res	2
Stickybear Numbers	3-6	C	A IC	Optimum Res	2
Winker's World of					
Numbers	6 up	B-	A	Wings for Learn	3
Young Math	4-8	C	I	Stone	2

*Currently used by Worthington students at home.

**Software that performs multiple functions such as math and reading.

COMPUter: A = Apple, 2 = Apple IIGS specific (many A are 2 compatible),
I = IBM PC compatible, C = Commodore 64, M = Macintosh

COST: 1 = less than \$25.00 2 = \$25.01 - \$50.00
3 = \$50.01 - \$75.00 4 = greater than \$75.01

4.3 Social Studies and Science

SOFTWARE NAME	AGES	EVAL	COMP	PUBLISHER	COST
Bushbuck Charms, Viking					
Ships and Dodo Eggs	12 up	B-	I	PC Globe	2
Castles	12 up	B-	I	Interplay	3
Eco-Saurus	4-9	C+	?	First Byte	2
Headline Harry and the					
Great Paper Race	10 up	B+	I M	Davidson	2/3
Oregon Trail, The	10 up	B	A I M	MECC	2
Where in the World is					
Carmen Sandiego	8 up	B+*	A2ICM	Broderbund	2/3

4.4 Multidisciplinary**

SOFTWARE NAME	AGES	EVAL	COMP	PUBLISHER	COST
Miracle Piano, The					
Teaching System	10 up	B-	M	Software Tool	4
(music/piano playing)					
Muppets On Stage	3-6	B-	A I M	Sunburst Comms	3
(counting/letters)					
Playroom, The	3-6	A*	A I M	Broderbund	2
(letters/time/numbers)					
Quarter Mile, The	5 up	C+	A I	Barnum Software	2

(math/letters/numbers)					
Talking Alpha Chimp	3-7	B	2I M	Orange Cherry	3
(letters/counting)					
Treasure Mountain!	5-9	B*	I	The Learning Co	2
(Super Solvers)					
(read/math/sci/think)					
Treehouse, The	5-9	A-	A I	Broderbund	3
(math/language/music)					

**Currently used by Worthington students at home.*

***Software that performs multiple functions such as math and reading.*

COMPUter: A = Apple, 2 = Apple IIGS specific (many A are 2 compatible),
I = IBM PC compatible, C = Commodore 64, M = Macintosh

COST: 1 = less than \$25.00 2 = \$25.01 - \$50.00
 3 = \$50.01 - \$75.00 4 = greater than \$75.01

5. Software Publishers

Barnum Software
2201 Broadway, Suite 201
Oakland, CA 94612
(800) 332-3638

Bright Star Technology, Inc.
14450 North East 29th
Suite 220
Bellevue, WA 98007
(206) 451-3697

Broderbund Software
500 Redwood Blvd
Novato, CA 94948
(800) 521-6263

Compton's New Media
345 4th Street
San Francisco, CA 94107
(800) 572-2272

Davidson & Associates, Inc.
P.O. Box 2961
Torrance, CA 90509
(800) 545-7677

DLM
One DLM Park
Allen, TX 75002
(800) 527-4747

Edmark Corporation

6727 185th Avenue North East
Redmond, WA 98052
(800) 426-0856

Electronic Arts
1820 Gateway Drive
San Mateo, CA 94404
(800) 245-4525

First Byte, Inc.
Clauset Center
3100 South Harbor, Suite 150
Santa Ana, CA 21704
(800) 523-8070?

Great Wave Software
5353 Scotts Valley Drive
Scotts Valley, CA 95066
(408) 438-1990

Hartley Courseware, Inc.
Box 419
Dimondale, MI 48821
(800) 247-1380

Houghton Mifflin Co.
Educational Software Division
1 Beacon Street, 30th Floor
Boston, MA 02108
(617) 725-5000

Interplay Productions
3710 South Susan
Suite 100
Santa Ana, CA 92704
(800) 969-4263

Lawrence Productions
1800 South 35th Street
Galesburg, MI 49053
(800) 421-4157

The Learning Company
6493 Kaiser Drive
Fremont, CA 94555
(800) 852-2255

The Learning Box
4508 Valley Crest Drive
Arlington, TX 76013
(800) 743-9450

MECC
6160 Summit Drive North
Minneapolis, MN 55430
(800) 685-6322

Merit Software
13635 Gamma Road
Dallas, TX 75244
(800) 238-4277

Milliken Publishing Company
P.O. Box 21579
1100 Research Boulevard
St. Louis, MO 63132
(800) 325-4236

Mindplay
3130 N. Dodge Blvd
Tucson, AZ 85716
(800) 221-7911

Mindscape/SVE
Society For Visual Education
1345 West Diversey Pkwy
Chicago, ILL 60614
(800) 829-1900

Optimum Resource, Inc.
10 Station Place
Norfolk, CT 06058
(800) 327-1473

Orange Cherry Software
P.O. Box 390
Pound Ridge, NY 10576
(800) 672-6002

PC Globe, Inc.
4700 South McClintock Drive
Tempe, AZ 85282
(800) 255-2789

Queue, Inc.
338 Commerce Drive
Fairfield, CT 06434
(800) 232-2224

Scholastic Software
2931 East McCarty Street
P.O. Box 7502
Jefferson City, MO 65102
(800) 541-5513

Software Tool Works
71 Leveroni Court
Novato, CA 94949
(800) 231-3088

Stone & Associates
Suite 319

7910 Ivanhoe Avenue
La Jolla, CA 92037
(800) 733-1263

Tom Snyder Productions
90 Sherman Street
Cambridge, MA 02140
(800) 342-0236

Sunburst Communications, Inc.
101 Castleton Street
Pleasantville, NY 10570
(800) 321-7511

Walt Disney Computer Software Inc.
500 South Buena Vista Street
Burbank, CA 91521
(800) 688-1520

Wings For Learning
1600 Greenhills Road
P.O. Box 660002
Scotts Valley, CA 95067
(800) 203-4510

6. Software Vendors

6.1 Nationwide Sources

Educational Resources (800) 624-2926 (full line catalog,
school versions, lab packs)

Egghead Software (800) 344-4323
Learning Services (800) 877-9378 (full line catalog, school
versions, lab packs)

MacConnection (800) 334-4444
MacWarehouse (800) 255-6227
TigerSoftware (800) 666-2562

6.2 Local Sources

Computer City
Price Plaza II
597A E. Ordnance Rd
Glen Burnie, MD 21060
(410) 508-3865

CompUSA
Governor Plaza
Glen Burnie, MD
(410) 768-1612
(800) 451-7638

Egghead Software
14201 Baltimore Ave

*Laurel, MD
(301) 725-3105
(800) 344-4323*

*Egghead Software Institutional Sales
8815 Centre Park Dr
Columbia, MD
(800) 786-4344*