Computer Science

Philosophy:

The philosophy for the teaching of computer science is to teach a variety of computer skills across a range of subjects, in a safe and responsible manner. By gaining understanding of the basic operations of a computer, the use of computers as a productivity tool, to more advanced concepts of how computer hardware and software works, the students become responsible users of technology with skills that are current, challenging, fun and relevant to their coursework and future studies in education and beyond.

Computer software includes:

Productivity software:

Microsoft Office 2007 Professional Suite –

>   Word (word processing)
>
>   Access (database)
>
>   Power Point (slide presentations)
>
>   Publisher (desktop publishing)
>
>   Excel (spreadsheet)

Keyboarding software:

KidKeys (K-2)

Type-To Learn (3-5)

Mavis Beacon Teaches Typing (6-8)

Graphic Design software:

KidPix Deluxe

Tesselmania

Educational software:

Reader Rabbit (K)

Reader Rabbit (1)

How Many Bugs in a Box

Miss Spider's Tea Party

ClueFinders (3)

ClueFinders (3-5)

Zoombini's Logical Journey

Zoombini's Mountain Rescue

Clock Faces

Borderbund's Math Workshop

Edmark's Millie's Math House

Edmark's Bailey's Book House

Edmark's Mighty Math Number Heroes

Oregon Trails ll

Computer programming:

M.I.T.''s Scratch programming language

HTML programming language

Research tools:

Microsoft Internet Explorer 8.0

Computer hardware:

12 Gateway computers for hands-on hardware exploration

COMPUTER TECHNOLOGY

National Educational Technology Standards (NETS)

NETS I: Basic Operation and Concepts

<table>
<tr><td colspan="2">

Key:

Resources (Software Applications) shown in red

I – Introduce, R – Reinforce, M – Master
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SKILLS	GRADES								
	K	1	2	3	4	5	6	7	8
A. Demonstrate Knowledge of Correct Computer Terminology									
1. Identify the following **external** parts and peripherals of a computer:									
Mouse	I	R	M						
Keyboard	I	R	M						
Monitor	I	R	M						
Speakers	I	R	M						
Computer Case		I	R	M					
Printers			I	R	M				
Optical Drive			I	R	M				
CD-Rs			I	R	M				
CD-RWs						I	R	M	
DVDs						I	R	M	
DVD-RW						I	R	M	
2. Identify the following **internal** parts and peripherals of a computer:									
Processor								I	R
Hard Drive								I	R
Optical Drive								I	R
RAM								I	R
Fan								I	R
Motherboard								I	R
Battery								I	R
Sound Card,								I	R
Video Card								I	R
Expansion Slots								I	R

	1	2	3	4	5	6	7	8	9
3. Identify the different types of computers:									
Servers						I	R	R	R
Desktops			I	R					
Towers			I	R					
Laptops				I	R				
Netbooks					I	R			
4. Explain the different measurements of computer performance and capacity, in terms of computer memory:									
Bits, Nibbles, Bytes									I
Kilobytes, Megabytes, Gigabytes and Terabytes									I
5. Explain the different measurements of computer performance and capacity, in terms of processor speed:									
Megahertz, Gigahertz									I
B. Develop an Understanding of How Computers Work (Hardware and Software) and How to Enhance Their Performance.									
1. Explain the role of the various computer components in the operation of the computer									
Mouse	I	R	M						
Keyboard	I	R	M						
Monitor	I	R	M						
Speakers		I	R	M					
Computer Case		I	R	M					
Printers			I	R	M				
Optical Drive			I	R	M				
CD-Rs			I	R	M				
CD-RWs			I	R	M				
DVDs			I	R	M				
DVD-RW			I	R	M				
2. Discuss how the computer encodes text									
Text to Binary									I
Text to Hexadecimal									I

	1	2	3	4	5	6	7	8	9
3. Discuss how the computer encodes and displays color on the monitor									
Pixels						I	R	M	
Screen Resolution						I	R	M	
RGB Components of Each Pixel									I
Hex Codes for Colors									I
4. Design, code and execute a computer program:									
Use Thinkin' Things III – Half Time to develop beginning computer programming skills and create a football half time show.						I			
Use M.I.T.'s Scratch Programming Language to create an interactive computer game or animation							I	R	
Learn HTML and write own code to create web pages									I
5. Demonstrate ability to install hardware components:									
Install RAM (memory)								I	I
Replace a Hard Drive								I	I
Replace an Optical Drive								I	I
Replace a Motherboard								I	I
Install a Video Card or Network Card								I	I
6. Demonstrate ability to end a non-responsive task									
Activate Task Manager								I	R
Select and end a task								I	R
7. Identify possible sources of technical problems									
Damaged external device (CD)			I	R					
Damaged hardware (hard drive, cards, power supply, motherboard)				I	R				
Damage software (corrupted file or application)				I	R				
Virus					I	R			
Spyware					I	R			
User error						I	R		
8. Discuss potential solutions of technical problems									
Clean CD			I	R					
Replace hardware								I	R
Reinstall or replace software								I	R
Run Anti-virus software								I	R
Run anti-spyware software								I	R
Correct user error						I	R	R	R

C. Understand Functions and Features of a Windows Operating System

1. Identify and describe functions of various parts of Window's desktop screen:										
Desktop			I	R	R	M				
Wallpaper			I	R	R	M				
Icons			I	R	R	M				
Folders			I	R	R	M				
Files			I	R	R	M				
A Window			I	R	R	M				
Window's Title Bar			I	R	R	M				
"My Documents"						I	R	M		
"My Computer"						I	R	M		
"My Network Places"						I	R	M		
Start Button						I	R	M		
Task Bar						I	R	M		
Recycle Bin							I	R	M	
Quick Launch Toolbar							I	R	M	
2. Demonstrate ability to customize Windows settings										
Customize Wallpaper using preinstalled graphics						I	R	M		
Customize Wallpaper with user created images						I	R	M		
Customize Wallpaper with images stored as computer files						I	R	M		
Customize Wallpaper using centered, stretched and tiled functions						I	R	M		
Understand and explain purpose of screen savers						I	R	M		
Set up and apply a customized screen saver						I	R	M		
Determine and adjust desktop screen area resolution.						I	R	M		
Determine and adjust desktop color levels.						I	R	M		
3. Demonstrate ability to manipulate Windows:										
Close			I	R	M					
Open			I	R	M					
Maximize			I	R	M					
Minimize			I	R	M					
Restore				I	R	M				
Move				I	R	M				
Size				I	R	M				
Scroll				I	R	M				
Switch Between Windows						I	R	M		
Arrange Multiple Open Windows - Cascade or Tile (Horiz & Vertically)						I	R	M		

	1	2	3	4	5	6	7	8	9
Show the Desktop While Viewing Open Windows					I	R	M		
4. Demonstrate use of correct terminology and understanding of mouse functions:									
Click	I	R	M						
Double-Click	I	R	M						
Click-and-Drag	I	R	M						
Right-Click					I	R	M		
5. Demonstrate an understanding of Windows file structure:									
Safely delete files from the computer					I	R	M		
Recover deleted files from the computer						I	R	M	
Create new folders and files within the directory structure					I	R	M		
Rename files and folders					I	R	M		
Locate lost files on a computer given the file name						I	R	M	
Locate lost files on a computer using information about file's date and/or content and/or file type						I	R	M	
Demonstrate ability to move and/or copy files from one location to another using Windows Explorer:									
Within the computer						I	R	M	
To the server						I	R	M	
To an external memory device						I	R	M	
Describe and Demonstrate Various Methods for:									
Opening a folder			I	R	M				
Opening a File			I	R	M				
6. Demonstrate an understanding of the function of the system's clipboard:									
Copy to and paste from Clipboard from a single application					I	R	M		
Copy to and paste from clipboard between different applications					I	R	M		
7. Demonstrate various methods for executing a program:									
Start a program from the Start Menu						I	R	M	
Start a program from a shortcut:									
Click and <Enter>			I	R	M				
Double-Click			I	R	M				
Start a program by opening a stored file associated with the program						I	R	M	

Skill									
8. Demonstrate various methods for locating and opening a saved file:									
Browsing to file						I	R	M	
Using an Application's "File…", "Open…" feature						I	R	M	
9. Demonstrate understanding of various methods to save a document:									
Using an Application's "File…", "Save…" feature						I	R	M	
Using an Application's "File…", " Save As…" feature						I	R	M	
Browse to and save to appropriate folder						I	R	M	
Save to a local location						I	R	M	
Save to a network location						I	R	M	
Save to an external device							I	R	M
10. Demonstrate ability to print a document:									
Print to default printer			I	R	M				
Select and print to an alternate printer						I	R	M	
Install a printer							I	R	M
D. Develop and Demonstrate Keyboarding Skills									
1. Identify and explain the name of the standard American keyboard (QWERTY).		I	R	M					
2. Identify which row of the keyboard is the home row		I	R	M					
3. Demonstrate correct home row finger position		I	R	M					
4. Demonstrate correct finger positioning while typing		I	R	M					
5. Demonstrate proper posture		I	R	M					
6. Locate and use A-Z keys		I	R	M					
7. Type full name in correct form.	I	R	M						
8. Locate and use 0-9 keys			I	R	M				
9. Locate and use Space Bar, Shift and Enter keys			I	R	M				
10. Locate and use punctuation keys (comma, period, quotes, exclamation)			I	R	M				
11. Locate and use special character keys (above numerals)				I	R	M			
12. KidKeys – Achieve ability to type single words, and simple sentences with correct capitalization and punctuation.			M						
13. Type-To-Learn - 12WPM & 90% accuracy				M					
14. Type-To-Learn - 15WPM & 90% accuracy				I	M				
15. Type-To-Learn - 18WPM & 90% accuracy				I	R	M			
16. Mavis Beacon Teaches Typing - 21WPM & 90% accuracy							M		
17. Mavis Beacon Teaches Typing - 24WPM & 90% accuracy							I	M	
18. Mavis Beacon Teaches Typing - 27WPM and 90% accuracy							I	R	M
E. Develop and Demonstrate Mouse Skills									

	1	2	3	4	5	6	7	8	9
1. Demonstrate the ability to perform click, double-click, and click-and-drag with the mouse.									
Rub-a-Dub	I	R							
KidKeys – Mouse Chase	I	R	M						
2. Demonstrate the ability to perform a right-click with the mouse.									
Discussion of Windows click options						I	R	M	
3. Improve smoothness of using the mouse.									
Rub-a-Dub	I	R							
KidKeys – Mouse Chase	I	R	M						
Create a Snow Flake		I	R						
Miss Spider's Tea Party – Beatles River Crossing									
4. Demonstrate how to modify a mouse's setting for use by a left-handed user.									
Discussion of Control Panel's Mouse Settings								I	R
F. Understand Function and Features of Internet Browsers									
1. Explain purpose of Internet browsers						I	R	M	
2. Name various Internet browsers						I	R	M	
3. Identify and name certain features of Internet Explorer									
Address Bar						I	R	M	
Favorites List						I	R	M	
Home Page icon						I	R	M	
File functions – Print, Print Preview						I	R	M	
Edit functions – Find on this page…						I	R	M	
4. Demonstrate ability to set home page in Internet Explorer						I	R	M	
5. Demonstrate ability to set search engine in Internet Explorer							I	R	M
6. Demonstrate how to view the source code of a web page in Internet Explorer									I
7. Demonstrate how to go to a specific web page									
Type in given URL into address bar						I	R	M	
Search for key words and click on matching link							I	R	M
8. Demonstrate how to print a picture directly from a web page							I	R	M
9. Demonstrate how to print a web page							I	R	M
10. Demonstrate how to print a selected section of a web page							I	R	M
11. Demonstrate how to preview prior to printing – responsible use of paper						I	R	M	

NETS II: Social, Ethical, and Human Issues – Responsible Use

SKILLS	GRADES								
	K	1	2	3	4	5	6	7	8
A. Demonstrate Proper Care and Handling of Computer Equipment									
1. Demonstrate proper care in the use of the keyboard	I	R	M						
2. Demonstrate proper care in the use of headphones.	I	R	M						
3. Demonstrate proper handling of CDs			I	R	M				
4. Demonstrate proper method of opening and closing Optical drive			I	R	M				
5. Demonstrate proper way to turn off the computer.						I	R	M	
6. Demonstrate ability to do a soft restart of the computer						I	R	M	
7. Demonstrate ability to turn on the computer and turn on the computer monitor from a complete shutdown.						I	R	M	
8. Demonstrate ability to do a hard restart of the computer						I	R	M	
9. Demonstrate ability to log off the computer ready for the next user						I	R	M	
10. Demonstrate procedure used for cleaning a mechanical mouse							I	R	M
B. Demonstrate Responsible Use of Internet									
1. Discuss, sign and abide by Internet Acceptable Use Policy:									
Do not download or install applications without permission						I	R	R	R
Protect confidential personal information						I	R	R	R
Use appropriate language in all electronic communications						I	R	R	R
Do not plagiarize and respect the rights of copyright owners						I	R	R	R
Abide by school policy prohibiting listening of music						I	R	R	R
Show responsibility by reporting any issues of concern						I	R	R	R
C. Demonstrate Responsible Use of Intranet									
1. Demonstrate ability to log into own domain network account						I	R	M	
2. Remember user name and password						I	R	R	M
3. Respect for other users' network accounts						I	R	M	
4. Show responsibility for own network account						I	R	M	

NETS III: Technology Productivity Tools

SKILLS	GRADES								
	K	1	2	3	4	5	6	7	8
A. Demonstrate Word Processing Skills – Microsoft Word 2007									
1. Setup necessary toolbars						I	R	M	
2. Move and adjust toolbars						I	R	M	
3. Name and identify the various visual parts of the word processing application						I	R	M	
4. Change the zoom percentage to adjust the view						I	R	M	
5. Setup and adjust page margins							I	R	M
6. Change page orientation						I	R	M	
7. Select the characteristics for new text; font style, size, color and features				I	R	M			
8. Change font characteristics of existing text; font style, size, color and features				I	R	M			
9. Replicate font styles.				I	R	M			
10. Adjust the text alignment; left, center, right and justify.				I	R	M			
11. Set the line spacing							I	R	M
12. Create columns								I	R
13. Copy and paste text from one part of the document to another,						I	R	M	
14. Insert page breaks							I	R	M
15. Insert page numbers							I	R	M
16. Create and insert WordArt into document				I	R	M			
17. Insert pictures using the clip art gallery						I	R	M	
18. Insert pictures or photos from files on disk						I	R	M	
19. Describe the steps used to resize pictures, using correct terminology.					I	R	M		
20. Wrap text around pictures within the document (tight, square, inline).						I	R	M	
21. Position pictures behind and in front of text						I	R	M	
22. Reposition pictures within the document						I	R	M	
23. Reformat pictures within the document (add borders, visual effects)							I	R	M
24. Insert AutoShapes							I	R	M
25. Use spell check							I	R	M
26. Save document to personal document folder						I	R	M	
27. Preview the document prior to printing						I	R	M	
28. Print document to printer						I	R	M	

Skill									
B. Demonstrate Spreadsheet Skills – Microsoft Excel 2007									
1. Enter formulas for calculating cell values								I	R
2. Generate charts from spreadsheet data								I	R
3. Format text within spreadsheet								I	R
4. Apply borders around selected cells								I	R
C. Demonstrate Database Skills – Microsoft Access 2007									
1. Create a database and create fields within the database									I
2. Enter data into a database									I
3. Sort data in a database									I
D. Demonstrate Ability to Create Presentation Slides – Microsoft PowerPoint 2007									
1. Insert new slides into a presentation							M		
2. Enter text into slides							M		
3. Enter drawings into slides							M		
4. Insert clip art into slides							M		
5. Insert pictures from a file into slides							M		
6. Insert motion clips into slides							M		
7. Insert sound clips into slides							M		
8. Record audio into presentation							M		
9. Record music into presentation							M		
10. Setup transition affects between slides.							M		
11. Rearrange slides within a presentation							M		
12. Setup transition time between slides.							M		
13. Setup custom animation of objects within a slide							M		
14. Setup presentation to run automatically							M		
E. Demonstrate Desktop Publishing Skills – Microsoft Publisher 2007									
1. Create, save and print greeting cards								I	R
2. Create, save and print a single-page calendar with custom photos and dates								I	R
3. Create, save and print a multi-page calendar with custom photos and dates								I	R
4. Create, save and print a banner with text, clip art and border								I	R

NETS IV: Technology Communication Tools

SKILLS	GRADES								
	K	1	2	3	4	5	6	7	8
A. Communicate with Teacher and Classmates Electronically – SMART Sync									
1. Demonstrate ability to work interactively with teacher through the remote sharing of computer screen and keyboard		I	R	M					
2. Demonstrate ability to use classroom chat rooms to collaborate with classmates on projects						I	R	M	
3. Demonstrate ability to ask the teacher questions through a private venue						I	R	M	
4. Demonstrate ability to submit files electronically to the teacher							I	R	M
5. Demonstrate ability to receive files electronically from the teacher							I	R	M
B. Communicate with students from other Countries Electronically - ePals									
1. Demonstrate ability to use email to communicate with students from other areas in the world							I		

NETS V: Technology Research Tools

SKILLS	GRADES								
	K	1	2	3	4	5	6	7	8
A. Demonstrate Ability to do Research on a Computer									
1. Demonstrate use of Internet search engines for conducting research						I	R	M	
2. Demonstrate use of on line encyclopedias & atlases							I	R	M
3. Demonstrate ability to download images from the Internet and save to folders						I	R	M	
4. Discuss copy-right rules						I	R	M	

NETS VI: Technology Problem-Solving and Decision-Making Tools

SKILLS	GRADES								
	K	1	2	3	4	5	6	7	8
A. Use computers to reinforce grade appropriate Math skills									
1. Identify and compare sizes									
Millie's Math House – Little, Middle & Big	I								
2. Develop counting skills									
Reader Rabbit Kindergarten – Counting Lake	I								
Millie's Math House – What's My Number	I								
Millie's Math House – Number Machine	I								
Millie's Math House – Build-A-Bug	I								
How Many Bugs in a Box	I								
Reader Rabbit Kindergarten – Number Lumber	I								
Reader Rabbit 1st Grade – Papa Bear's Store Costume Count		I							
3. Shape identification									
Millie's Math House – Mouse House	I								
Mighty Math Number Heroes – Quizzo				I					
4. Develop sequencing skills									
Millie's Math House – Cookie Factory	I								
Mighty Math Number Heroes – Quizzo				I					
How Many Bugs in a Box	I								
Reader Rabbit Kindergarten – Diner Lineup	I								
Reader Rabbit Kindergarten – What comes next	I								
5. Develop problem solving techniques involving geometry and spatial relationships									
Reader Rabbit Kindergarten – Get Your Bearings	I								
Millie's Math House – Mouse House	I								
Millie's Math House – Cookie Factory	I								
Broderbund's Math Workshop – TV Room		I	R	R					

Skill / Software	1	2	3	4	5	6	7	8	9	10
6. Develop deductive reasoning and logical thinking skills.										
Broderbund's Math Workshop – TV Room, Easel Room, Rocket Room		I	R	R						
Heartsoft Math – Sleuth Master				I						
Logical Journey of the Zoombinis Deluxe						I				
Zoombinis Mountain Rescue							I			
Oregon Trail II				I	R					
ClueFinders 3rd Grade Adventures				I						
ClueFInders 4th Grade Adventures					I					
ClueFInders 5th Grade Adventures					I					
Thinkin' Things III – Fribble Place					I	R				
M.I.T.'s Scratch Programming Language						I	R	M		
HTML Programming Language										I
7. Strengthen pattern recognition skills										
Millie's Math House – Bing & Bong	I									
Reader Rabbit 1st Grade – Pierre's Studio – Pattern Piano		I								
Reader Rabbit 2nd Grade			I							
Broderbund's Math Workshop – Butterfly Room		I	R	R						
Broderbund's Math Workshop – Stained Glass Room		I	R	R						
ClueFinder's 3rd Grade Adventures				I						
Zoombinis Mountain Rescue							I			
8. Sort objects										
How Many Bugs in a Box	I									
Reader Rabbit 1st Grade – Bab's Workshop – Prop Sorter		I								
Logical Journey of the Zoombinis Deluxe						I				
9. Measure objects										
Reader Rabbit 1st Grade – Bab's Workshop – Measure It!		I								
10. Learn proportion, matching, and scale										
Broderbund's Math Workshop – Easel Room		I	R	R						
11. Rotation and translations										
Broderbund's Math Workshop – Easel Room		I	R	R						
Broderbund's Math Workshop – TV Room		I	R	R						
Mighty Math Number Heroes – GeoComputer					I	R				
Tesselmania Deluxe										I

Skill / Software	1	2	3	4	5	6	7	8	9
12. Symmetry									
Broderbund's Math Workshop – Easel Room		I	R	R					
Create a Snow Flake		I	R						
Mighty Math Number Heroes – GeoComputer					I	R			
13. Understand the units of time measurement									
Trudy's Time and Place – Control the Calendar Clock		I	R						
14. Tell Time on analog clocks									
Trudy's Time and Place – Tell Time with the Twins		I	R						
Clock Faces – Telling Time	I	R							
Reader Rabbit 2nd Grade			I						
Heartsoft Math – Tommy the Time Turtle	I	R							
15. Set time on analog clocks									
Clock Faces – Set the Time	I	R							
16. Tell time on digital clocks									
Trudy's Time and Place – Tell Time with the Twins		I	R						
17. Match analog and digital time									
Clock Faces – Match Analog and Digital Time	I	R							
18. Calendar skills									
Reader Rabbit 1st Grade – Papa Bear's Store Creek		I							
Clock Faces – Calendar Skills		I	R						
Reader Rabbit 2nd Grade			I						
19. Money skills									
Heartsoft Math – Coin Changer		I	R						
Reader Rabbit 1st Grade – Papa Bear's Store Costu-Matic		I							
ClueFinders 3rd Grade Adventures				I					
ClueFinders 4th Grade Adventures					I				
Dollar Bill	I	R	R	R	R				
20. Addition and subtraction									
Millie's Math House – What's My Number	I								
Reader Rabbit 2nd Grade			I						
Broderbund's Math Workshop – Bowling Alley			I	R	R				
Mighty Math Number Heroes – Quizzo					I	R			
Wild West Math – Bronc Ridin'				I	R				
Wild West Math – Computation Corral				I	R				
Heartsoft Math – Electric Math Chalkboard			I	R					

ClueFinders 3rd Grade Adventures				I					
ClueFinders 4th Grade Adventures					I				
ClueFinders 5th Grade Adventures						I			
21. Multiplication and division									
Broderbund's Math Workshop – Bowling Alley				I	R	R			
Mighty Math Number Heroes – Quizzo					I	R			
Wild West Math – Bronc Ridin'				I	R				
Wild West Math – Computation Corral				I	R				
ClueFinders 3rd Grade Adventures				I					
ClueFinders 4th Grade Adventures					I				
ClueFinders 5th Grade Adventures						I			
22. Equivalencies and estimations									
Broderbund's Math Workshop – Bowling Alley				I	R	R			
23. Rounding skills									
Wild West Math – Round Up Trail				I	R				
24. Place value									
Wild West Math – Place Value Pass				I	R				
25. Probability									
Mighty Math Number Heroes – Probability					I	R			
26. Read graphs and charts									
Mighty Math Number Heroes – Probability					I	R			
27. Fractions									
Reader Rabbit 2nd Grade			I						
Broderbund's Math Workshop – Music Fractions Room					I	R	R		
Broderbund's Math Workshop – Boiler Room					I	R	R		
Mighty Math Number Heroes – Fraction Fireworks				I	R	R			
ClueFinders 5th Grade Adventures						I			
28. Percentages and decimals									
Broderbund's Math Workshop – Boiler Room					I	R	R		
Wild West Math – Computation Corral				I	R				
29. Geometric concepts of perimeter, area, congruence									
Mighty Math Number Heroes – GeoComputer					I	R			
ClueFinders 5th Grade Adventures						I			
30. Algebra									
Logical Journey of the Zoombinis Deluxe						I			

Zoombinis Mountain Rescue							I			
31. Tesselations										
Mighty Math Number Heroes – GeoComputer					I	R				
Tesselmania Deluxe										I
B. Use computer to reinforce grade appropriate Science skills										
1. Experiment with friction, motion and inertia										
Thinkin' Things III - Carving Blox						I				
2. Animal traits and habitats										
Reader Rabbit 1st Grade – Bab's Workshop – select animal that doesn't belong		I								
Amazon Trail II					I					
3. Insect characteristics and anatomy										
Reader Rabbit 2nd Grade				I						
4. Life science										
ClueFinders 3rd Grade Adventures					I					
5. Earth science										
ClueFinders 3rd Grade Adventures					I					
ClueFinders 4th Grade Adventures						I				
6. Physical science										
ClueFinders 3rd Grade Adventures					I					
ClueFinders 4th Grade Adventures						I				
ClueFinders 5th Grade Adventures							I			
7. Organize data										
ClueFinders 3rd Grade Adventures					I					
ClueFinders 4th Grade Adventures						I				
Logical Journey of the Zoombinis Deluxe							I			
Zoombinis Mountain Rescue								I		
8. Hypotheses testing										
ClueFinders 3rd Grade Adventures					I					
ClueFinders 4th Grade Adventures						I				
Zoombinis Mountain Rescue								I		

C. Use computer s to reinforce grade appropriate Reading skills										
1. Pre-reading skills (memory skills)										
Reader Rabbit Kindergarten – Canoe Match	I									
How Many Bugs in a Box	I									
Miss Spider's Tea Party – Bee Flower Matching		I								
2. Learn names of letters, upper and lower case										
Bailey's Book House – Letter Machine	I									
3. Identify beginning letter sounds										
Bailey's Book House – Three-Letter Carnival	I									
4. Phonics										
Bailey's Book House – Three-Letter Carnival	I									
Reader Rabbit 1st Grade – Owl's Silly Scripts		I								
Reader Rabbit 1st Grade – Owl's Word Bird		I								
Reader Rabbit 2nd Grade			I							
5. Spelling										
Reader Rabbit 1st Grade – Owl's Silly Scripts		I								
Reader Rabbit 1st Grade – Owl's Word Bird		I								
Reader Rabbit 2nd Grade			I							
ClueFinders 3rd Grade Adventures				I						
ClueFinders 4th Grade Adventures					I					
ClueFinders 5th Grade Adventures						I				
6. Punctuation										
Reader Rabbit 2nd Grade			I							
7. Grammar										
ClueFinders 3rd Grade Adventures				I						
8. Identify two letter blends										
Reader Rabbit 1st Grade – Owl's Word Bird		I								
9. Identify rhyming words										
Bailey's Book House – Three-Letter Carnival	I									
Bailey's Book House – Read-A-Rhyme		I								
10. Build sentences										
Bailey's Book House – Make-A-Story		I								
Reader Rabbit 2nd Grade			I							

11. Synonyms and antonyms								
Reader Rabbit 2nd Grade			I					
ClueFinders 3rd Grade Adventures				I				
ClueFinders 4th Grade Adventures					I			
ClueFinders 5th Grade Adventures						I		
12. Increase reading vocabulary								
Bailey's Book House – Make-A-Story		I						
Reader Rabbit 1st Grade – Owl's Silly Scripts		I						
Reader Rabbit 2nd Grade			I					
ClueFinders 3rd Grade Adventures				I				
ClueFinders 4th Grade Adventures					I			
ClueFinders 5th Grade Adventures						I		
13. Improve reading comprehension								
Reader Rabbit 1st Grade – Owl's Silly Scripts		I						
Reader Rabbit 2nd Grade			I					
Oregon Trail II				I	R			
ClueFinders 3rd Grade Adventures				I				
ClueFinders 4th Grade Adventures					I			
ClueFinders 5th Grade Adventures						I		
14. Learn adjectives and prepositions								
Bailey's Book House – Make-A-Story		I						
Bailey's Book House – My Friend		I						
Bailey's Book House – Edmo & Houdini		I						
D. Use computers to reinforce grade appropriate Social Studies skills								
1. Learn relative (left, right, forward) and cardinal (N,S,E,W) directions								
Trudy's Time and Place – Which Way to the Jellybean			I					
2. Understand common map symbols								
Trudy's Time and Place – Which Way to the Jellybean			I					
ClueFinder's 3rd Grade Adventures				I				
3. Map reading								
Oregon Trail II				I	R			
ClueFinders 3rd Grade Adventures				I				
ClueFinders 4h Grade Adventures					I			
ClueFinders 5th Grade Adventures (longitude and latitude)						I		

Skill / Software										
4. Explore the relationship between a qlobe and a world map										
Trudy's Time and Place – Blast Off With Astro Mouse			I							
5. Locate and learn about major landmarks, locate and name 7 continents and 4 oceans										
Trudy's Time and Place – Blast Off With Astro Mouse			I							
6. State capitals										
ClueFinders 3rd Grade Adventures				I						
7. U.S. geography										
ClueFinders 5th Grade Adventures						I				
8. U.S. history										
Oregon Trail II				I	R					
ClueFinders 5th Grade Adventures						I				
9. World geography										
Amazon Trail II						I				
10. World history										
Amazon Trail II						I				
ClueFinders 5th Grade Adventures						I				
E. Use computers to reinforce grade appropriate Art skills										
1. Create special effects										
Thinkin' Things III – Photo Twister						I				
2. Create graphic designs										
Reader Rabbit 1st Grade – Pierre's Studio - Billboards		I								
Reader Rabbit 2nd Grade			I							
KidPix		I	R	R	M					
Microsoft Paint	I	R	R	M						
3. Create web pages										
Code with HTML programming language										I
Use a WYSIWYG Editor										I
F. Use computers to reinforce grade appropriate Music skills										
1. Create music										
Reader Rabbit 2nd Grade			I							
2. Identify music patterns										
Reader Rabbit 1st Grade – Pierre's Studio – Pattern Piano		I								
3. Match musical instrument to its sound										
Miss Spider's Tea Party – Cricket's Band		I								