

55
TECHNOLOGY PROJECTS
FOR THE DIGITAL
CLASSROOM

*Everything you need
to integrate
computers into
K-8 classes*

Volume II



55 TECHNOLOGY PROJECTS FOR THE DIGITAL CLASSROOM

Everything you need to integrate computers
into K-8 classes

Volume II

Third EDITION

Third Edition 2011
Part of Structured Learning's Technology Curriculum
Visit the companion website at <http://askatechteacher.com> for more resources to teach technology to children

To receive a free weekly digital technology tip and/or website, send an email to admin@structuredlearning.net with the message "Subscribe to Weekly Tips" or "Subscribe to Weekly Websites"

ALL MATERIAL IN THIS BOOK IS PROTECTED BY THE INTELLECTUAL PROPERTY LAWS OF THE USA.

No part of this work can be reproduced or used in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, Web distribution or information storage and retrieval systems—without the prior written permission of the publisher

For permission to use material from this text or product, contact us by email at:
info@structuredlearning.net
structuredlearning.net

ISBN 978-0-9787800-9-8

Printed in the United States of America

TABLE OF CONTENTS

Projects—by Subject

Subject #5: Keyboarding

Project #56: Free Online Keyboarding Programs
Project #57: Keyboarding for Homework
Project #58: Keyboarding in the Classroom

Subject #6: Language Arts

Project #59: Read while Keyboarding
Project #60: Online Sustained Silent Reading
Project #61: Every Day Vocabulary—Part I
Project #62: Sponge Activities using PowerPoint
Project #63: Online Spelling Practice
Project #64: Spelling Practice in Tech Quizzes
Project #65: My Projects in PowerPoint
Project #66: A Vocabulary Table in Word
Project #67: What Do I Want to Learn?
Project #68: Sponge Activities for Lang. Arts

Subject #7: Math

Project #69: Using Shapes in Holiday Cards
Project #70: Keeping a Timecard in Excel
Project #71: Beginning Graphs in Excel
Project #72: Check Your Math Homework
Project #73: Graph a Class Survey in Excel
Project #74: Mastering Excel (for Beginners).
Project #75: Tessellations in Excel
Project #76: Sponge Activities using Math

Subject #8: Problem Solving

Project #77: We Are All Problem-solvers
Project #78: What's a Word Cloud
Project #79: Clarify with Excel
Project #80: Two Are Better Than One
Project #81: The Problem-solving Board

Subject #9: Research

Project #82: Sponge Activities using Webcams, Virtual Tours and Videos
Project #83: Which Website is Best? (Word)
Project #84: A Picture is Better—in Word Part I
Project #85: Intern. Research on the Internet
Project #86: How to Search the Internet
Project #87: A Picture is Better—in Word Part II
Project #88: Element. Research on the Internet
Project #89: Sponge Activities in Research

Subject #10: Science

Project #90: Windows Wallpaper
Project #91: Travel the Universe
Project #92: Rainforest Animals in KidPix
Project #93: Outlining Science Textbook
Project #94: Where Am I II(using MS Word)?
Project #95: Famous Inventors/Inventions
Project #96: Ecosystems Table in Word
Project #97: Sponge Activities in Science

Subject #11: Technology

Project #98: Email Basx.
Project #99: Internet Basx
Project #100: Integrate Web 2.0 into Class
Project #101: Don't print homework! (Email it)
Project #102: Keyboard Shortcuts.
Project #103: The Computer's Body
Project #104: The Vocabulary Board
Project #105: Geek Speak.
Project #106: The Digital Photo
Project #107: The Screen Shot
Project #108: Team Challenge
Project #109: Assessment in MS Word
Project #110: Assessment in Publisher

Projects—by Program

Email

Project 98: Email Basx

Project 101: Don't print homework—Email it

Google Earth

Project 91: Travel the Universe

Internet

Project 56: Free Online Keyboarding

Project 60: Online Sustained Silent Reading

Project 62: Sponge Activities—PowerPoint

Project 63: Online Spelling Practice

Project 68: Sponge Activities—Language Arts

Project 76: Sponge Activities using Math

Project 78: What's a Word Cloud?

Project 82: Sponges—Webcams, Virtual Tours, Videos

Project 83: Which Website is Best?

Project 85: Intermed. Research on Internet

Project 86: How to Search the Internet

Project 88: Element. Research on Internet

Project 89: Sponge Activities in Research

Project 97: Sponge Activities in Science

Project 99: Internet Basx

Project 100: Integrate Web 2.0 into Class

Keyboarding

Project 56: Free Online Keyboarding

Project 57: keyboarding for Homework

Project 59: Read While Keyboarding

Project 102: Keyboard Shortcuts.

KidPix

Project 69: Using Shapes in Holiday Cards

Project 82: Sponges—Webcams, Virtual Tours, Videos

Project 92: Rainforest Animals in KidPix

MS Excel

Project 70: Keeping a Timecard in Excel

Project 71: Beginning Graphs in Excel

Project 72: Check Your Math Homework

Project 73: Graph a Class Survey in Excel

Project 74: Mastering Excel (for Beginners)

Project 75: Tessellations in Excel

Project 79: Clarify with Excel

Project 80: Two Heads Study Better Than One

MS PowerPoint

Project 62: Sponge Activities using PowerPoint

Project 65: My Projects in PowerPoint

Project 67: What Do I Want to Learn

Project 95: Famous Inventors/Inventions

MS Publisher

Project 110: Assessment in Publisher

MS Word

Project 66: A Vocabulary Table in Word

Project 70: What's My WPM? Typing in Word

Project 83: Which Website is Best? (Word)

Project 84: Picture is Better-in Word Part I

Project 87: Picture is Better-in Word Part II

Project 93: Outlining Science Text in Word

Project 94: Where Am I II(using MS Word)?

Project 96: Ecosystems Table in Word

Project 109: Assessment in MS Word

Sponges

Project 62: Sponge Activities in PowerPoint

Project 68: Sponge Activities—Language Arts

Project 76: Sponge Activities for Math

Project 82: Sponges—Webcams, Virtual Tours, Videos

Project 89: Sponge Activities I Research

Project 97: Sponge Activities in Science

Windows

Project 90: Windows Wallpaper

Projects—by Grade

KINDERGARTEN-SECOND GRADE

Internet

- Project 60: Online SSR
- Project 68: Sponges—Language Arts
- Project 76: Sponges—Math
- Project 77: We Are All Problem-solvers
- Project 82: Sponges—Webcams, Virtual Tours, Videos
- Project 97: Sponge Activities in Science
- Project 100: Integrate Web 2.0 into Class

Keyboarding

- Project 56: Free Online Keyboarding
- Project 102: Keyboard Shortcuts.

KidPix

- Project 69: Using Shapes in Holiday Cards

MS Excel

- Project 71: Beginning Graphs in Excel
- Project 75: Tessellations in Excel

MS PowerPoint

- Project 65: My Projects in PowerPoint

Technology Basx

- Project 61: Every Day Vocabulary—Part I
- Project 99: Internet Basx
- Project 102: Keyboard Shortcuts
- Project 103: The Computer's Body
- Project 105: Geek Speak
- Project 106: The Digital Photo

FIRST GRADE-SECOND GRADE

Internet

- Project 56: Free Online Keyboarding
- Project 60: Online SSR
- Project 68: Sponges—Language Arts
- Project 76: Sponges—Math
- Project 82: Sponges—Webcams, Virtual Tours, Videos
- Project 97: Sponge Activities in Science
- Project 99: Internet Basx
- Project 100: Integrate Web 2.0 into Class

Keyboarding

- Project 56: Free Online Keyboarding
- Project 102: Keyboard Shortcuts.
- Project 103: The Computer's Body

KidPix

- Project 69: Using Shapes in Holiday Cards

MS Excel

- Project 71: Beginning Graphs in Excel
- Project 73: Graph a Class Survey in Excel
- Project 75: Tessellations in Excel

MS PowerPoint

- Project 67: Slideshow of Student Skills

Problem solving

- Project 102: Keyboard Shortcuts.

Technology Basx

- Project 61: Every Day Vocabulary—Part I
- Project 77: We Are All Problem-solvers
- Project 105: Geek Speak
- Project 106: The Digital Photo

SECOND GRADE-FOURTH GRADE

Internet

- Project 60: Online SSR
- Project 63: Online Spelling Practice
- Project 68: Sponges for Language Arts
- Project 76: Sponge Activities using Math
- Project 82: Sponges—Webcams, Virtual Tours, Videos
- Project 85: Interm. Research on Internet
- Project 88: Element. Research on Internet
- Project 90: Windows and the Internet
- Project 97: Sponge Activities in Science
- Project 99: Internet Basx
- Project 100: Integrate Web 2.0 into Class

Keyboarding

- Project 56: Free Online Keyboarding
- Project 102: Keyboard Shortcuts.

KidPix

- Project 69: Using Shapes in Holiday Cards

- Project 92: Rainforest Animals in KidPix

MS Excel

- Project 70: Keeping a Timecard in Excel
- Project 71: Beginning Graphs in Excel
- Project 73: Graph a Class Survey in Excel
- Project 75: Tessellations in Excel

MS PowerPoint

- Project 67: Slideshow of Student Skills

MS Publisher

- Project 110: Assessment in Publisher

MS Word

- Project 84: A Picture is Better-Part I
- Project 87: A Picture is Better-Part II
- Project 94: Where Am I II?
- Project 96: Ecosystems Table in Word

Problem solving

Project 102: Keyboard Shortcuts.
Technology Basx
Project 61: Every Day Vocabulary—Part I
Project 77: We Are All Problem-solvers
Project 90: Windows and the Internet
Project 102: Keyboard Shortcuts

Celestia
Project 91: Travel the University

Email
Project 98: Email Basx
Project 101: Don't Print That Homework!

Google Earth
Project 91: Travel the Universe

Internet
Project 56: Free Online Keyboarding
Project 60: Online SSR
Project 62: Sponges—PowerPoint
Project 63: Online Spelling Practice
Project 68: Sponges—Language Arts
Project 76: Sponge Activities Using Math
Project 78: What's a Word Cloud
Project 82: Sponges—Webcams, Virtual
Tours, Videos
Project 85: Interm. Research on Internet
Project 89: Sponge Activities in Research
Project 90: Windows Wallpaper
Project 97: Sponge Activities in Science
Project 99: Internet Basx
Project 100: Integrate Web 2.0 into Class

Keyboarding
Project 57: Keyboarding for Homework
Project 59: Reading While Keyboarding
Project 102: Keyboard Shortcuts.

MS Excel
Project 70: Keeping a Timecard in Excel
Project 71: Beginning Graphs in Excel
Project 72: Check Your Math Homework
Project 73: Graph a Class Survey in Excel
Project 75: Tessellations in Excel
Project 79: Clarify with Excel

MS PowerPoint

Celestia
Project 91: Travel the Universe

Email
Project 98: Email Basx
Project 101: Don't Print That Homework!

Internet
Project 56: Free Online Keyboarding
Project 60: Online SSR
Project 62: Sponges—PowerPoint
Project 63: Online Spelling Practice

Project 103: The Computer's Body
Project 105: Geek Speak
Project 106: The Digital Photo

THIRD GRADE-SIXTH GRADE

Project 62: Sponges—PowerPoint
MS Publisher
Project 62: Sponges—PowerPoint
Project 110: Assessment in Publisher

MS Word
Project 64: Spelling Practice in Quizzes
Project 66: A Vocabulary Table in Word
Project 70: What's My WPM?
Project 84: A Picture is Better—Part I
Project 87: A Picture is Better—Part II
Project 94: Where Am I II?
Project 96: Ecosystems Table in Word
Project 109: Assessment in MS Word

Problem solving
Project 78: What's a Word Cloud
Project 81: The Problem-solving Board
Project 102: Keyboard Shortcuts.
Project 104: The Vocabulary Board
Project 105: Geek Speak

Technology Basx
Project 61: Everyday Vocabulary—Part 1
Project 62: Sponges—PowerPoint
Project 64: Spelling Practice in Technology
Project 66: A Vocabulary Table in Word
Project 77: We Are All Problem-solvers
Project 81: The Problem-solving Board
Project 90: Windows Wallpaper
Project 99: Internet Basx
Project 103: The Computer's Body
Project 104: The Vocabulary Board
Project 105: Geek Speak
Project 106: The Digital Photo
Project 107: The Screen Shot
Project 108: Team Challenge

Fourth Grade-SEVENTH GRADE

Project 68: Sponges—Language Arts
Project 76: Sponge Activities Using Math
Project 78: What's a Word Cloud
Project 82: Sponges—Webcams, Virtual
Tours, Videos
Project 83: Which Website is Best? (Word)
Project 85: Interm. Research on Internet
Project 86: How to Search the Internet
Project 89: Sponge Activities in Research
Project 90: Windows Wallpaper

Project 97: Sponge Activities in Science:
Project 99: Internet Basx
Project 100: Integrate Web 2.0 into Class

Keyboarding

Project 56: Free Online Keyboarding
Project 57: Keyboarding for Homework
Project 59: Reading While Keyboarding
Project 64: Spelling Practice in Technology
Project 102: Keyboard Shortcuts.

MS Excel

Project 72: Check Your Math Homework
Project 73: Graph a Class Survey in Excel
Project 74: Mastering Excel
Project 75: Tessellations in Excel
Project 79: Clarify with Excel

MS PowerPoint

Project 62: Sponges—PowerPoint
Project 95: Famous Inventors/Inventions

MS Publisher

Project 110: Assessment in Publisher

MS Word

Project 66: A Vocabulary Table in Word
Project 70: What's My WPM?
Project 83: Which Website is Best? (Word)

Project 84: A Picture is Better—Part I
Project 87: A Picture is Better—Part II
Project 93: Outlining the Science Textbook
Project 94 Where Am I—Part II?
Project 96: Ecosystems Table in Word
Project 109: Assessment in MS Word

Problem solving

Project 77: We Are All Problem-solvers
Project 81: The Problem-solving Board
Project 102: Keyboard Shortcuts.

Technology Basx

Project 61: Everyday Vocabulary—Part I
Project 62: Sponges—PowerPoint
Project 64: Spelling Practice in Technology
Project 81: The Problem-solving Board
Project 90:—Windows Wallpaper
Project 102: Keyboard Shortcuts
Project 103: The Computer's Body
Project 104: The Vocabulary Board
Project 105: Geek Speak
Project 106: The Digital Photo
Project 107: The Screen Shot
Project 108: Team Challenge

Keyboarding

Project 56: Free Keyboarding Programs
Project 57: Keyboarding for Homework
Project 59: Read While Keyboarding
Project 64: Spelling Practice in Technology
Project 102: Keyboard Shortcuts.

MS Excel

Project 72: Check Your Math Homework
Project 74: Mastering Excel
Project 75: Tessellations in Excel
Project 79: Clarify with Excel
Project 80: Two Heads Study Better

MS PowerPoint

Project 62: Sponges—PowerPoint

MS Publisher

Project 110: Assessment in Publisher

MS Word

Project 66: A Vocabulary Table in Word
Project 70: What's My WPM?
Project 84: A Picture is Better—Part I
Project 87: A Picture is Better—Part II
Project 93: Outlining the Science Textbook
Project 94: Where Am II?
Project 96: Ecosystems Table in Word
Project 109: Assessment in MS Word

Problem solving

Project 77: We Are All Problem-solvers
Project 81: The Problem-solving Board
Project 102: Keyboard Shortcuts.

FIFTH GRADE-EIGHTH GRADE

Celestia

Project 91: Travel the Universe

Email

Project 98: Email Basx
Project 101: Don't Print That Homework!

Google Earth

Project 91: Travel the Universe

Internet

Project 56: Free Online Keyboarding
Project 60: Online SSR
Project 62: Sponges—PowerPoint
Project 63: Online Spelling Practice
Project 68: Sponges—Language Arts
Project 76: Sponge Activities Using Math
Project 78: What's a Word Cloud
Project 82: Sponges using Webcams, Virtual Tours, Videos
Project 83: Which Website is Best?
Project 85: Interm. Research on Internet
Project 86: How to Search the Internet
Project 89: Sponge Activities in Research
Project 90: Windows Wallpaper
Project 96: Ecosystems Table in Word
Project 97: Sponge Activities in Science
Project 99: Internet Basx
Project 100: Integrate Web 2.0 into Class

Technology Base

- Project 61: Everyday Vocabulary—Part I
- Project 62: Sponges—PowerPoint
- Project 64: Spelling Practice in Technology
- Project 77: We Are All Problem-solvers
- Project 81: The Problem-solving Board
- Project 90: Windows Wallpaper
- Project 102: Keyboard Shortcuts

- Project 103: The Computer's Body
- Project 104: The Vocabulary Board
- Project 105: Geek Speak
- Project 106: The Digital Photo
- Project 107: The Screen Shot
- Project 108: Team Challenge

Appendices

National Education Technology Standards for Students

Internet Sites for K-8

Index

What Educators Need to Know to Use This Book

"It's not what the teacher does that's important. It's what the teacher gets the children to do."

Phil Schlecty said that, but it could have been any teacher. Effective education is active—a classroom culture where students lead in-depth exploration of authentic topics. Two elements make that happen: the integration of technology into learning and the incorporation of projects into lessons.

Sounds straightforward. Technology plus projects equals positive learning strategies achieved when students use technology to research projects, analyze and synthesize their information, and present it to the best of their ability. It moves learning from a two-dimensional content area into a multidisciplinary setting.

That's worth repeating: By incorporating *computers, software, network-based systems, internet-based programs and research, email, Web 2.0 (any technology-based resources and practices)* into the classroom, education moves beyond books and lectures in the

exploration. The melding of technology and projects fills the holes left when books aren't available, providing equity in scholastic offerings. It allows students to take responsibility for their schooling—to sleuth out answers to questions that arise in an everyday educational environment that are left behind by a static curriculum. It demands higher order thinking as it encourages individual accountability and performance-based assessments. It empowers active and experiential learning that is remembered years later. It engages student interest and motivates them to learn. It insists they dig deeper and provides the shovels and trowels to do it. What teacher wouldn't want that?

Project-based learning involves students in making the connections between rigor and relevance, demanding accountability in the classroom.

So are you sold? Are you wondering, "Are there guidelines?" Read on.

Aligning to ISTE's NETS•S

Only sixteen states align technology with classroom education standards. Most school districts come up with their own vision. Some weave technology into core subjects; some teach it as a stand-alone.

Luckily, there is a set of standards recognized worldwide as authentic assessments of technology-education

integration. These are the National Educational Technology Standards for Students, created by the ISTE - International Society for Technology in Education. (see appendix). This is the standard behind the tech-ed model in No Child Left Behind.

How to Use This Book

Projects included in this book are designed for a PC with a Windows-based environment. If you're using a different OS (Linux, Mac), you'll need to adapt the instructions.

STATE TECHNOLOGY REPORT CARD 2008		
	California	How did the average state score?
Access to technology	F	C
Use of technology	D+	B-
Capacity to use technology	B-	C
Overall grade	D+	C+

You are the leader. If you look at the national grade for using technology in the classroom (see inset, from *State Technology Report 2008*, Education Week), you'll realize you may stand

"Leadership is the single most important factor affecting the successful integration of technology. This is true at the state level and at the school level. Schools which have made the most progress are those with energetic and committed leaders." *(from a study on technology integration).*

alone in your district. But this book will guide you. Each lesson has been tested over a period of years in K-8 classrooms, fine-tuned to insure an engaging learning experience that supports authentic questions and open collaboration within an integrated environment.

55 Technology Projects for the Digital Classroom (Volumes I and II) ties each lesson into four areas: 1) higher-order thinking, 2) technology skills addressed, 3) subject area/learning addressed, 3) and NETS-S standards covered. See the complete list of

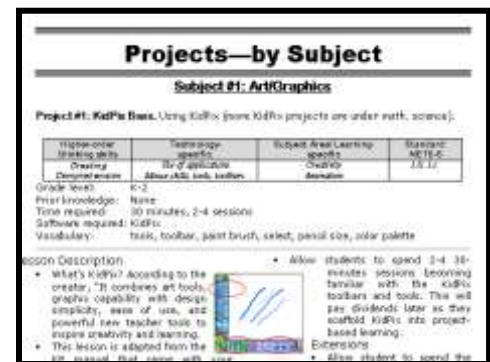
skills under 'Skills Taught', and the project list on individual lesson pages. Each skill is covered several times by the time you complete all projects.

Next, the one hundred eleven projects in the two volumes are categorized three ways: 1) by subject, 2) by program (software), and 3) by grade level:

PROJECTS BY CLASSROOM SUBJECT

This section makes it easy to select the right project for the subject area. Each project includes:

- A brief summary of the assignment
- Which grade level it is designed for
- Prior knowledge required, including projects that should be completed prior to beginning this one
- Time required
- Software required, as well as download sites for free programs such as Google Earth and Celestia.
- Vocabulary required. Use these words in your teaching. Require students to use them. By the time you finish 20-30 projects, students will speak geek.
- Higher-order thinking skills addressed
- Technology-specific skills taught
- Core subject supported
- NETS-S skills addressed
- Lesson Description—why it's taught, the pedagogy behind it
- Step-by-step lesson plan. What to teach when during the project, so students finish with the least frustration and greatest amount of excitement and discovery.
- Extensions—for deeper exploration
- Troubleshooting tips—from problems I and other technology teachers have experienced in the classroom and how we've solved them as a group
- Examples of projects, including reproducibles for classroom use (grading rubrics, sample projects, checklists, etc.)



PROJECTS BY SOFTWARE

Each lesson is categorized by the software required to complete it. This allows teachers to focus on only the programs available to them. If there's a free version offered on the internet, that address is included. To complete all 110 projects, software required is:

- *Adobe Photoshop (or the free [GIMP](#))*
- *[Celestia](#) (free download)*
- *Email*
- *[Google Earth](#) (free download)*
- *Internet browser*
- *KidPix (or the free [TuxPaint](#))*
- *MS Excel*
- *MS Word*
- *MS PowerPoint*
- *MS Publisher*
- *Oregon Trail (or free online version)*
- *Type to Learn (or free online keyboarding sites)*
- *TTL Jr. (or free alternatives)*
- *Windows*

If you purchased a digital copy of this book, click the link to access the program. If you have a print copy, visit <http://askatechteacher.com> for instructions on purchasing a discounted digital book.

PROJECTS BY GRADE

Each project is categorized by suggested grade level. This determination is made by projects, skills and training that must predate the project, student intellectual maturity, and class time required to instruct students on necessary technical skills. Attention was paid to providing teachers with a selection that fulfills 'typical' state educational standards. For example, there are twenty-one project that correlate to composition, eleven to geography, ten to language arts, and so on.

APPENDIX

The Appendix includes:

- NETS-S technology standards, from their webpage
- A comprehensive list of over 700 K-5 websites, organized by grade and subject. There's a summary page (we tear it out and put it in the back flap of their technology books) and then multi-page subject-specific sites. It also includes

locations of the over 200 websites used in the book, organized by project. Refer to this often when you're collaborating with colleagues or addressing tech-specific needs.

- A glossary of keyboard shortcuts most useful to faculty and students

Do You Run a Lab or the Classroom?

There are two ways to use this book:

- As the lab professional, parallel to the core classroom teaching.
- As the core teacher, integrating technology into each lesson

Either way, the computer lab becomes an extension of the classroom—same goals, same plans, same pedagogy.

YOU'RE A TEACHER INTEGRATING TECHNOLOGY INTO YOUR CLASSROOM

You probably use a word processor to create student handouts, a desktop publishing program for the monthly newsletter, email to chat with parents and maybe a spreadsheet to track grades. You might even use the Internet to find cutting-edge lesson ideas. You are what is considered the Web 1.0 teacher—comfortable with technology for your use, but struggling to integrate it into the classroom.

But this year, you want to add an active learning component to your lessons that

will encourage students to ask authentic questions. You've seen examples of students using technology as part and parcel of the educational process. They're engaged. Learning is student-centered rather than teacher-centered, which means students take responsibility for their own learning, because they've taken ownership. And—here's the scary part—the teacher runs the technology part of the lesson with assistance from a computer expert.

YOU'RE IN CHARGE OF THE COMPUTER LAB

Use these projects parallel to classroom instruction. You teach computer skills in

support of classroom projects, but technology is a stand-alone, much as Spanish and PE are, a life-skill. What you teach will serve students through high school and beyond, with an emphasis on core software (MS Office, Google Earth, keyboarding, internet, email).

Collaborate with teachers on which projects best support their units of inquiry (i.e., a trifold on colonization to support the fifth grade unit of

colonizing). Your job is to be sure students have the skills to complete the project. In kindergarten, you have a year's worth of skills. In fifth grade, you have a vast palette of abilities and programs at your disposal.

Each of these book projects can be incorporated by fifth grade. In reality, I manage about 35 a year in the six grades, revolving to keep the program fresh.

Typical 45-minute Lesson

As you face a room full of eager faces, remember that you are a guide, not an autocrat. Use the Socratic Method—don't take over the student's mouse and click for them or type in a web address when they need to learn that skill. Even if it takes longer, guide them to the answer so they aren't afraid of how they got there. If you've been doing this since kindergarten, you know it works. In fact, by the end of kindergarten, you saw remarkable results.

When talking with students, always use the correct vocabulary. That's why I've included it on the lesson plan. Be sure to emphasize the vocabulary and expect students to understand it. Try the Vocabulary Board during one of the quarters/trimesters. Students love it and it highlights why they want to understand 'Geek Speak'.

-
- Students enter the room. They know to start each class by checking the 'To Do' list on the TV monitor, taking their seats and plugging their flash drive in. You're finishing up an email, but it doesn't matter. Students are responsible for starting the class.
 - They start with 10 minutes of typing practice, either using installed software or an online keyboarding program.

Some days, they are directed to work on their site words in www.spellingcity.com or another activity they can succeed at without teacher direction.

- Next, there are three presentation activities (Project 39 *Google Earth Board*, #81 *Problem-solving Board*, #104 *Vocabulary Board*) that rotate throughout the year. Students have selected their topic and presentation date. Whoever is up for the day will teach the class and take questions from the audience. This takes 10-12 minutes. This week it's exploring the world with Google Earth.
- If it's the beginning of a month, I review assigned homework and take questions. If it's the end of a trimester, I review which skills they accomplished during the last three months.
- If we are starting a new project, I review it with them, take questions and we start. If they are in the middle of one, they use the balance of the class to work towards its completion. I monitor activities, answer questions, help where needed. They have access to installed software and the internet.
- During their work, students are free to post vocabulary words they don't

understand on the vocabulary board and problem-solving ideas on that board.

- Students who have completed the current project take advantage of '[sponge activities](#)' from a topic of their choice, practice keyboarding for the upcoming speed quiz or help a classmate struggling with a prickly skill. I include a variety of topical websites on a [class internet start page](#) (see inset for sample). Students know any websites on this page can be used by them during sponge time.



- Students who finish early may also access the [class wiki](#) (see inset for



- sample) to see what they might have missed in earlier classes.

K-5 TECHNOLOGY SCOPE AND SEQUENCE

Check each skill off with I/W/M/C under '1' as student accomplishes it
(Column 1 refers to the ISTE Standard addressed by the skill)

I=Introduced W=Working on M=Mastered C=Connected to Classwork

ISTE		K	1	2	3	4	5
I	Care and Use of the Computer						
	<i>Learn and practice safety on the Internet</i>	I	W	W	W	M	C
	<i>Keep your body to yourself—don't touch neighbor's kb</i>	I	W	W	W	M	C
	<i>Internet security—what it means, why</i>	I	I	I	W	M	C
	<i>Use of network file folders to save personal work</i>	I	I	W	W	M	C
II	Computer Hardware						
	<i>Understand how parts of the computer connect</i>	I	W	M	C	C	C
	<i>Know the names of all computer hardware</i>	I	W	M	C	C	C
	<i>Know how to adjust volume</i>	I	W	M	C	C	C
	<i>Know how to use the keyboard, mouse</i>	I	W	M	C	C	C
	<i>Know all parts of keyboard—Alt, F-row, space bar, etc</i>	I	W	M	C	C	C
	<i>Know how to turn monitor on/off</i>	I	W	M	C	C	C
	<i>Know how to power computer on, off</i>	I	W	M	C	C	C
III	Basic Computer Skills						
	<i>Know how to add file folders</i>						I
	<i>Know basic computer vocab—hardware and skills</i>		I	W	M	C	C
	<i>Understand Windows—desktop, icons, start button, etc.</i>			I	W	M	C
	<i>Understand the Ctrl+Alt+Del, use of Task Manager</i>				I	W	M
	<i>Know how to drag-drop from one window to another</i>						I
	<i>Know how to log-on</i>			I	W	M	C
	<i>Know how to create a macro (for MLA heading)</i>						I
	<i>Understand mouse skills</i>	I	W	M	C	C	C

Balance Intentionally ommitted

Skills Taught

The following are critical skills every child should be familiar with and are covered by lessons in this book. Summarized, they include higher-order thinking (adapted from Bloom's Taxonomy of Education Objectives), technology-specific (in text boxes), learning-specific, and NETS-S Standards (National Education Technology Standards for Students).

Collaboration Skills

- Interact, collaborate and publish with peers, experts or others employing a variety of digital environments and media
- Foster skills important to leadership and group dynamics
- Effectively collaborate, using strong interpersonal skills
- Evoke personal, social, and civic responsibility
- Employ interactive communication
- Produce relevant, high-quality products

Communication skills

- Understand and employ non-linear presentation of ideas
- Effectively use nonlinguistic representations (i.e., graphic representations, pictures and pictographs, mental pictures, 3D models)
- Graphically represent problems and solutions
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats
- Write clear, concise letters

Keyboarding

- Type for speed and accuracy
- Correct spacing after a period, question mark, exclamation point, comma.
- Sit up straight, good posture
- Center body with elbows at sides
- Position feet for balance
- Keep hands on home row, curved over keys, wrists off of keyboard
- Keep typing project to side of keyboard
- Keep eyes on screen or printed copy
- Use touch typing, with a smooth rhythm
- Know keyboard shortcuts
- Stretch fingers
- Use correct fingers—usually the one closest to the letter
- Use right thumb for spacebar
- Use shift key and caps lock correctly
- Use right little finger for enter/return
- Use left shift to capitalize right hand letters, right shift for left hand letters.
- Use right little finger for backspace/delete key
- Use left little finger for tab key

- Follow correct protocol for writing paragraphs
- Contribute to project teams to produce original works and/or solve problems
- Create bullet lists to explain concepts
- Create outlines to organize ideas
- Exhibit cultural understanding and global awareness
- Use graphic organizers to explain complicated ideas
- Use multimedia to explain concepts
- Use visual images instead of words
- Display effective communication, collaboration, and interpersonal skills
- Display effective use of real-world tools
- Produce cogent, pithy, high-quality products
- Use focused and specific methods—multimedia, pictures, diagrams, music, sound, movement, etc., for multi-intelligence communication
- Grammar and Spelling
 - Understand correct protocols for letter writing
 - Know how to type sentences/paragraphs with correct grammar and spelling
 - Use the grammar and spelling tools available with the word processing software to improve your work
 - Know how to spell and use technology vocabulary

Email

- *Importance of a correct address*
- *Understand body of email (message area)*
- *Paste information into body of email*
- *Use proper netiquette*
- *Use attachments*
- *Use 'to', 'cc', 'subject line'*
- *Check 'sent' file*

Desktop Publishing

- *Identify workspace parts*
- *Understand page layout—colors, shapes, mix of text and pictures*
- *Use templates*
- *Employ an eye for the three c's: color, communication and cohesiveness*
- *Add and delete pages*
- *Add and edit/align text*
- *Add a cover page, Table of Contents, sidebars, pull quotes*
- *Change document view.*
- *Insert, edit, delete frames*
- *Insert and/or change a picture*
- *Preview and print a document*
- *Save, close and reopen a document*
- *Select color and font schemes*
- *Use the Design gallery*

Creativity and Innovation

- Employ creativity in problem solving
- Employ non-linear thinking
- Utilize graphic representation of ideas, problems, solutions

- Apply existing knowledge to new ideas, products and/or processes
- Create original works as a means of personal and/or group expression
- Identify trends and forecast possibilities
- Use models and simulations to explore complex systems and issues

Critical Thinking, Problem Solving and Decision Making

- Produce relevant, high-quality products
- Analyze a problem and identify solutions using logic
- Collect and analyze data to identify solutions and/or make informed decisions
- Employ creativity in problem solving
- Don't shy away from curiosity, creativity, risk taking
- Show effective use of real-world tools
- Follow directions
- Use a guided discovery of solutions and learning
- Employ high productivity prioritizing, planning, and managing for best results
- Employ higher-order thinking and sound reasoning
- Know how to decode programs you haven't been taught
- Know how to select from various solutions
- Identify and define authentic problems and significant questions for investigation
- Display inventive thinking, adaptability
- Display a bias for non-linear thinking
- Understand options for explaining concepts, reports, information (visually, etc)
- Plan and manage activities to develop a solution or complete a project
- Pursue inquiry-based and project-based learning
- Employ self-regulated learning

MS Excel

- *Use Excel to turn data into information*
- *Analyze data in a problem-solving context*
- *Merge-center cells*
- *Use formulas*
- *Create and format graphs*
- *Create and save workbooks*
- *Enter/sort/format data*
- *Insert hyperlinks*
- *Format cells, columns, rows*
- *Format chart area*
- *Format plot area*
- *Label a chart, axes, legend*
- *Use print-preview to adjust size and layout of document*

Graphics

- *Resize/crop a picture*
- *Draw geometric shapes*
- *Format a picture*
- *Draw freehand*
- *Move a picture*
- *Use transparencies and recoloring*

- Use multiple processes and diverse perspectives to explore alternative solutions

Digital Citizenship

- Produce relevant, high-quality products
- Advocate and practice safe, legal and responsible use of information and technology
- Learn about computers and ethics, computers and society
- Demonstrate personal responsibility for lifelong learning
- Exhibit digital citizenship
- Know how to cite work from the internet
- Display personal, social, and civic responsibility
- Understand and employ safe use of the internet

KidPix

- *Add/edit text*
- *Develop eye-hand coordination*
- *Develop mouse skills*
- *Drag-and-drop*
- *Practice fine motor skills*
- *Select the right tool*
- *Understand 'undo'*
- *Understand drawing on the computer*
- *Use fills*
- *Use fonts, font sizes, font colors*
- *Use toolbars*
- *Work with text boxes*

Higher-order Thinking (adapted from Bloom's Taxonomy and the Marzano Model for Thinking Skills)

- Analyze:
 - See patterns
 - Organize parts
 - Recognize hidden meanings
 - Identify components
- Apply:
 - Use information
 - Use methods, concepts, theories in new situations
 - Solve problems using required skills or knowledge
- Comprehend:
 - **Interpret facts, compare, contrast**
 - **Order, group, and infer causes**
 - **Predict consequences**
 - **Understand information**

- **Grasp meaning**
- **Translate knowledge into new context**
- Evaluate:
 - Assess the value of theories
 - Make choices based on reasoned arguments
 - Verify value of evidence
 - Recognize subjectivity
 - Compare and discriminate between ideas
- Build knowledge
 - Remember dates, events, places, major ideas
 - Observe and recall of information
 - Master subject matter
- Understand:
 - Generalize from given facts
 - Relate knowledge from several areas
 - Predict and draw conclusions
 - Use old ideas to create new ones

MS Word

- *Edit, format, enter, wrap text*
- *Create original work at keyboard*
- *Use tools and toolbars*
- *Create numbered lists, bullet lists*
- *Find synonyms*
- *Grammar check*
- *Import graphics*
- *Insert borders*
- *Insert, format, resize graphics*
- *Insert headers and footers*
- *Use print-preview before printing*
- *Check page layout (margins, work area, heading-title-body-closing)*
- *Spell-check*
- *Use graphic organizers to explain concepts*
- *Use keyboard shortcuts*
- *Use right-click menus*
- *Change line spacing*
- *Create macros to automate work*
- *Use the cursor to add and edit*
- *Create a table, add/delete rows*
- *Insert watermarks*

Internet

- Know how to find and enter a website address
- Know how to use the browser's toolbar
- Know how to use hyperlinks to maneuver through a website
- Know how to use back-forward buttons, home button
- Know how to add to favorites and use favorites
- Know how to intelligently use the internet for research, how to credit sources, how to pick the most reliable sites, how to refine hits using limitors, extensions and qualified sources
- Know proper internet netiquette
- Know the parts of a web address

Presentation skills

- Know how to prepare and make a class presentation
- Know who your audience is and how to keep the audience interested
- Be sure your main point is clear and concise, you have good posture, make eye contact, speak with fluency and expression (no fillers, proper vocabulary, voice and pitch)

Research and Information Fluency

- Plan strategies to guide inquiry
- Take surveys and communicate data
- Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media
- Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- Process data and report results

MS PowerPoint

- *Add animation-custom animation*
- *Add hyperlinks*
- *Add music to a slide, the entire show*
- *Add pictures*
- *Add slide backgrounds*
- *Add transitions*
- *Add/delete slides*
- *Add/edit/align/format text*
- *Auto-advance slides*
- *Edit pictures, text boxes*
- *Graphically-represent ideas*
- *Navigate from slide-to-slide*
- *Understand slide layout (place savers)*
- *Understand visual learning*
- *Use backgrounds*
- *Use critical thinking skills*
- *Use print preview to print*

Technology Operations and Concepts

- Create wallpaper using a drawing program or pictures from a file folder
- Understand and use technology systems
- Select and use applications effectively and productively
- Troubleshoot systems and applications
- Transfer current knowledge to learning of new technologies
- Copy from-paste to

Google Earth

- *Copy locations to another file under 'My Places'*
- *Create a tour*
- *Find latitudes and longitudes*
- *Fly-to a location*
- *Mark locations*
- *Measure distances*
- *Save images to 'My Places'*
- *Save locations under 'My Places' to another location*
- *Use Google Earth Community*

- Know correct use of equipment, computer etiquette
- Drag-and-drop data/info between programs
- Close a program
- Be able to use print preview, print and save
- Make wallpaper for desktop
- Use mouse skills: click-hold-drag-drop, double-click, point, scroll, single-click, use of mouse buttons
- Know parts of a computer and how they connect
- Understand right-click menus
- Know the difference between save and save-as
- Know how to save to network drive, external drive
- Understand technology vocabulary
- Know how to turn computer/monitor on and off
- Use a program you haven't been taught—how to intuit what to do
- Use flash drives and other external drives
- Use icons to open a program
- Use scroll bars to maneuver through a page
- Use Task Manager to shut down a program or the computer
- Use caps lock key
- Use shift key to capitalize a letter
- Use clock to find the date
- Use taskbar, toolbars, menu bars
- Use Word Pad, Notepad

Photoshop

- *Understand 'Actions' tool*
- *Understand 'History' layer*
- *Add frames*
- *Add text*
- *Employ auto fixes*
- *Understand when to use which clone tool*
- *Employ different cropping tools for different uses*
- *Format pictures*
- *Use artistic renderings*
- *Use History, Art brush*
- *Use paint brushes*

Subject #6: Language Arts

Project #61: Every Day Vocabulary—Part 1. Always use correct vocabulary when teaching so students get used to it. They will identify more quickly with technology if they know the vocabulary. I collect words students don't understand during class, then test them once a grade period.

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
<i>Integrating knowledge, evaluating choices</i>	<i>Geek speak, using applications effectively, understand tech systems</i>	<i>Spelling, grammar, composition</i>	<i>2.b, 4.c</i>

Grade level: K-8

Prior knowledge: None

Time required: A few minutes throughout the day, 15 minutes for quiz (grades 3-5)

Software required: None

Vocabulary: see list

Lesson Description

- Students should get used to hearing the language of technology. Be sure to use appropriate words and explain their meaning every lesson.

Computer Activity

- As you're teaching, use the correct vocabulary, even if you think it's too sophisticated for the age group. Call it an 'icon', not 'little picture that opens the program'. If this is a first time using the word, phrase it something like, "Double click the icon picture to open the program." Try to say the meaning with the word so students can understand without stopping.
- Collect words used during class that students didn't understand. Review them with the class now and then and quiz students when the list reaches ten words. Quiz should be fill-in-the-blank, graded for correct spelling (see samples on next pages)

- When you hear a student using correct vocabulary, applaud them. When someone asks what a word means, turn to the class for help.
- When a student is having trouble with a skill, ask the class for help. Fix their vocabulary as they talk. Make it clear what the right words are.

Extensions

- Set up a wiki—on your class website or Moodle—or a Discussion on the class websites where students can post words they don't understand and other students can post definitions.
- Show students how to use Google to define words (*define:theword*)

Troubleshooting Tips

- *I only see students once a week and these words don't seem to sink in. (They will. Don't give up. Introduce exciting projects that encourage students to talk the talk. Two favorites are keyboard shortcuts and Photoshop. Class pleasers!)*

Sample quiz for fifth grade:

Name: _____

Teacher: _____

Select a word from the word bank and write it in the cell next to the definition. It must be spelled correctly for credit.

***Chevron
Export***

***Flash drive
Hard copy
Macro***

***MB
Menu bar
Template***

***Tool bar
USB***

1.	<i>Menu that drops down with choices of things to do</i>	
2.	<i>Memory stick—portable place to save files</i>	
3.	<i>Megabytes</i>	
4.	<i>Icons at top of page that do something when you click on them</i>	
5.	<i>To save in a format that other programs can read</i>	
6.	<i>A port where you put the flash drive—in the front of the CPU</i>	
7.	<i>Double arrows at end</i>	

	<i>of tool bar</i>	
8.	<i>A document that is a standard look and can be personalized to your needs</i>	
9.	<i>A paper copy of a digital document</i>	
10.	<i>A few keystrokes that do many moves, like the one you made for your heading</i>	

Here's a long list I collected. Every year, I add to it:

K-5 VOCABULARY

.com	<i>A website extension that identifies the site as a commercial site</i>
.edu	<i>A website extension that identifies the site as an educational institution, usually a college or university</i>
.gov	<i>A website extension that identifies the site as a government agency</i>
.org	<i>A website extension that identifies the site as a non-profit, non-governmental organization</i>
Active Window	<i>The program that is currently being worked in—designated by a blue title bar</i>
Alignment	<i>Line up text or pictures on the right, the left or the center of a document</i>
Animation	<i>The way text comes on a slide in PowerPoint</i>
Applet	<i>a small program module that runs under the control of a larger application, typically a web browser</i>
ASCII	<i>The most basic form of text. An acronym for American Standard Code Information Interchange</i>
Auto-filter	<i>In Excel—a method of analyzing data according to specific categories</i>
AVI	<i>File format for video files</i>
Back up	<i>To save a second copy of data files, in case the first one doesn't work</i>
Backdoor	<i>An alternative method of getting in a computer or program, or accomplishing a result</i>
Baud rate	<i>Speed at which information is transferred</i>
Binary	<i>Basic system of numbers—ones and twos—used for programming</i>
Blog	<i>Web log</i>
Boot up	<i>To start up the computer</i>
Browser	<i>An internet program used for looking at various kinds of internet resources</i>
Bullet outline	<i>An indented list using pictures to organize information and facts</i>

Byte	<i>A unit of information—larger than a bit</i>
C++	<i>A popular programming language</i>
Cache	<i>A memory section of the hard drive that holds information while the CPU is working on it</i>
Cc	<i>Carbon copy or Confidential Copy—send a copy of an email to another person</i>
Cells	<i>The intersection of a row and a column in Excel—where data can be inserted</i>
Chevron	<i>Double arrows at end of tool bar that allow you to show buttons on two rows</i>
Clip Art	<i>Graphics, pictures, sometimes called click-art</i>
Clipboard	<i>A windows program that saves information you copy, to be pasted into a program later</i>
Columns	<i>The vertical arrangement of cells identified by a letter in Excel</i>
Cursor	<i>The arrow-like icon on the desktop that moves with the mouse, showing where the mouse is pointing</i>
Data	<i>Information</i>
Desktop	<i>The windows-generated look of the computer before programs are opened with icons, taskbar, and clouds</i>
Dialog Box	<i>A box that contains a message, often requesting more information or allowing you to select among options</i>
Dingbats	<i>Picture fonts</i>
Disk	<i>Either hard or floppy. Used to store data</i>
Doc	<i>The three-letter extension that tells a user that a document was saved in Word</i>
Drag	<i>To select with the left mouse button and move to a new location</i>
Drill down	<i>Moving from a general level to a detailed level</i>
Drop down arrow	<i>The black arrow next to a tool that provides selections within a tool</i>
Drop down Menu	<i>A menu that has multiple commands that show when you select it</i>
Dub dub dub	<i>www in an internet address</i>
Excel	<i>A spreadsheet application developed by Microsoft. To create spreadsheets, graphs, and do basic sorting</i>
Explorer	<i>A program in Windows that displays all files, folders and</i>

	<i>programs available on a computer</i>
Export	<i>To save data or pictures in a form other programs can read</i>
Extension	<i>The three-letter extension that tells a user that a document was saved in Word</i>
F11	<i>F-row key that creates a graph in Excel</i>
FAQ	<i>An acronym for Frequently Asked Questions</i>
Favorites	<i>Where often-used websites are saved on an internet browser</i>
Fill	<i>Background color of a picture, text box or diagram</i>
Flash drive	<i>Memory stick—portable place to save files</i>
Floppy Drive	<i>A location on the computer that holds a removable disk</i>
Folder	<i>A icon on the desktop that can hold multiple programs</i>
Font	<i>A set of letters, numbers that are of a given look and appearance.</i>
Footer	<i>Information that appears at the foot of every page—usually the name, page number and document title</i>
Format	<i>To change the look of text on a page to communicate better—bold, italics, color, font, size</i>
Formula	<i>always starts with "=" signs and describes what the calculations for that cell will be, i.e., add, subtract, etc.</i>
GIF	<i>An image format, an acronym for Graphical Interchange Format</i>
Graphic organizer	<i>A diagram that organizes information on a topic for the user</i>
Handles	<i>The black dots around a graphic, allowing you to change or delete the graphic</i>
Hard copy	<i>Paper copy</i>
Hard Drive	<i>The internal location on the computer that stores information</i>
Header	<i>Information that appears at the head of every page in a document—usually the author's name, the document title and the page number</i>
Hits	<i>The number of matches made by a search engine like Google in a search.</i>
Hour glass	<i>The picture showing that the computer is "thinking" before it performs your command</i>
Hover	<i>To "float" the cursor over a command until some information shows</i>

HTML	<i>The coding language used to create internet documents. An acronym for HyperText Markup Language</i>
HTTP	<i>The protocol for moving hypertext files across the internet. An acronym for HyperText Transport Protocol</i>
Hyperlink	<i>A link on a webpage to another webpage on the internet</i>
I-beam	<i>What the cursor is called in a word processing program</i>
Icon	<i>A tiny picture representing a program, usually on the desktop</i>
Indent	<i>To use the tab key to start writing or typing a short distance in from the margin</i>
Initialize	<i>To start up</i>
ISP	<i>A group that provides access to the internet. An acronym for Internet Service Provider</i>
Java	<i>A program that recreates information so it can be read by most computers</i>
JPEG	<i>An image format allowing for compression when stored. An acronym for Joint Photographic Experts Group</i>
Jump drive	<i>Memory stick—portable place to save files</i>
KB	<i>Kilobyte; a thousand bytes</i>

Balance intentionally deleted

Subject #6: Language Arts

Project #68: Sponge Activities for Language Arts. Have students visit these online sites when they have a few minutes at the end of class.

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
Identify components, solve problems with required skills	Use technology to broaden subject matter competency, learn the basics of internet	Reinforce spelling, class word lists	4.d, 6.a

Grade level: 2-8
 Prior knowledge: Project 99: *Internet Basx*
 Time required: 5-10 minutes
 Software required: internet browser
 Vocabulary: sponge, administrivia, website, digital, link, address bar

Lesson Description

- What's a sponge activity? The term was originally coined by Madeline Hunter and stem from her teaching philosophy that there should be no wasted moments in her classroom.
- Each website offers quick activities for students and take only 5-10 minutes.
- If you purchased the digital version of this book, Ctrl+click the blue links to take you to the site

Computer Activity

- Make your own Story—answer questions; the story writes itself
<http://netrover.com/~jjrose/storywriter/storywriter.htm>
- Funny poetry to read and enjoy
<http://gigglepoetry.com/>
- Jeff's Poetry for Kids
<http://www.jeffspoemsforkids.com/index.php>
- Fill in the blank poetry
<http://ettcweb.lr.k12.nj.us/forms/newpoem.htm>
- Get Writing—write your own story
www.britishcouncil.org/kids-writing-storymaker.htm
- Web version of Mad Libs <http://www.eduplace.com/tales/>



Extensions

- Add these websites to favorites to be used more quickly

Troubleshooting Tips

- *I get a list of hits—but not the site (did you type the address into the search bar by accident, rather than the address bar?)*
- *I can't find what you're talking about (take a deep breath and a moment to read what's on the webpage. There are probably directions to help you. Try it—it'll be fun!)*

Fourth Grade Poetry Websites

My fourth grade students are working on poetry for a few weeks and I have discovered some truly wonderful, fun-filled websites. Here's my list, each one tested and approved by 75 fourth graders. Just click the picture to go to the website (if you have a digital version of this book. If you don't go

to <http://askatechteacher.wordpress.com/2010/04/22/18-great-poetry-websites/> for a complete list):

1. [Acrostic](#)
2. [Haiku](#)
3. [Cinquain](#)
4. [Song Poems](#)
5. [Robo-poems](#)
6. [Poetry Engine](#)
7. [Giggle Poetry](#)

Want more? These are on my list, but I didn't get to them this year:

1. [Analyzing, reading and writing literature](#)
2. [Favorite Poem Project](#)
3. [Fourth Grade Poems](#)
4. [Funny Poetry](#)
5. [Glossary of Poetry Terms](#)
6. [Parts of Speech Poetry](#)
7. [Poetry forms](#)
8. [Poetry with a Porpoise](#)
9. [Shaped Poems–fun](#)
10. [Shel Silverstein](#)

Do you have any to share? What do your students like?



Nineteen Ways to Use Spare Classroom Time

I keep a list of themed websites that are easy-in easy-out for students. They are activities that can be accomplished enjoyably in less than ten minutes. In the parlance, these are called “sponges”.

Here’s my list, by topic (if you didn’t purchase a digital version of this textbook, go to this website—<http://askatechteacher.wordpress.com/2010/06/07/five-ways-to-use-spare-classroom-time/>):

Tech

- Desktop [Wallpapers](#) from National Geographic

Vocabulary Building

- [Hangman](#)
- Games with [high-frequency words](#)
- [Videos on reading](#), comprehension, phonics, sign language (similar to YouTube, but school-friendly)
- Web-based [Mad Libs](#)
- [Dolch](#) Flash Games

Geography

- [Geogreeting](#)
- [Quick quizzes](#)—how much do you know about geography?
- [Geospy](#)

For more of sponge activities, click on [Sponge Activities](#)–Part II

Share any sponges you have that are popular on [my blog](#). What do you do during free time with students?

- Another Geography game—[Geonet](#)

History

- [Videos of historic events](#)
- Kid’s Website on the [US Government and History](#)
- History Happens: [Stories on Video](#)
- [Newspaper front pages](#) from around the world—interactive
- When they were Young: A [Photographic History of Children](#)
- [Road to Revolution Game](#)

PowerPoint

- [Jeopardy](#) topics from Math to Science, organized by topic and grade
- [Jeopardy games](#) on Math and vocabulary
- [Jeopardy, Hollywood Squares, Who Wants to be a Millionaire](#)

Subject #7: Math

Project #76: Sponge Activities using Math. Like all sponges, these are designed to be used in 5-10 minute bursts. They focus on math and are six of the best math websites I know.

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
Recall information, master subject matter	Use technology to broaden subject matter competency, learn the basics of internet	Reinforce math facts, mental math	4.d, 6.a

Grade level: 2-8
 Prior knowledge: Project 99: *Internet Basx*
 Time required: 5-10 minutes
 Software required: internet browser
 Vocabulary: mental math, math facts

Lesson Description

- What's a sponge activity? The term was originally coined by Madeline Hunter, they stem from her teaching philosophy that there should be no wasted moments in her classroom.
- Each website offers quick activities for students, taking 5-10 minutes.
- If you purchased the digital version of this book, just Ctrl+click on the blue links to take you to the site

Computer Activity

- Put this list of six math websites on the class internet start page, to be accessed in short blocks of 5-10 minutes. For more, use the longer list on the next page:
 - *Math and Virtual Manipulatives*
nlvm.usu.edu/en/nav/vlibrary.html
 - *Math website—popular, a standard*
www.dep.anl.gov/aattack.htm
 - *Math—by Grade Level*
<http://www.aaamath.com/>
 - *Math—game-oriented*
<http://www.funbrain.com/tens/index.html>
 - *Mental Math*
http://math.usask.ca/emr/menu_arith.html
 - *Minute Math*
membres.distributel.net/~skipper/MadMath/mmm.htm



Extensions

- Add these websites to favorites to be used more quickly

Troubleshooting Tips

- *I get a list of hits—but not the site (Did you type the address into the search bar by accident, rather than the address bar?)*

Quick Math Websites

For updates to this list, visit [Ask a Tech Teacher](http://askatechteacher.com) (<http://askatechteacher.com>)

1. A Plus Math www.aplusmath.com/
2. Alien Addition www.arcademicskillbuilders.com/games/alien/alien.html
3. Arithmattack www.dep.anl.gov/aattack.htm
4. Build a bug math game www.interactivestuff.org/sums4fun/buildbug.html
5. Count us in—variety of math practice www.abc.net.au/countusin/default.htm
6. Flashcards or Worksheets www.aplusmath.com/
7. Game-oriented math learning www.funbrain.com/tens/index.html
8. Games that make you think www.zoopz.com
9. Interactive Math for Grades 2-6 www.beaconlearningcenter.com/WebLessons/
10. Internet links for 2nd grade—a bunch for math
www.montgomeryschoolsmd.org/schools/knollses/2ndgrade/grade2links.htm
11. Learn Multiplication facts—the fun way multiplication.com/
12. Links, by math topic—some for speed math elcerritowire.com/2/math.htm
13. Math Basics teachrkids.com/
14. Math edutainment coolmath4kids.com
15. Math Practice Test www.thatquiz.org/tq/practice.html?arithmetic
16. Math practice—requires subscription www.mathmastery.com
17. Math skills links www.internet4classrooms.com/skills_2nd.htm#math
18. Math—by Grade Level—lots of stuff www.aaamath.com/
19. Mental Math math.usask.ca/emr/menu_arith.html
20. Minute math drills membres.distributel.net/~skipper/MadMath/mmm.htm
21. Multiplication Tables www.mathsisfun.com/timestable.html
22. Ones, tens, hundreds www.bbc.co.uk/schools/starship/maths/games/
23. Pick a math category, take a quiz www.thatquiz.org/
24. Quick Math www.multiplication.com/interactive/quickflash/flash/
25. Quick Math www.sheppardsoftware.com/mathgames/quickmath/quickmath.htm
26. Speed math www.mrnussbaum.com/speedmath/
27. Test Your Math www.mathsisfun.com/timestable.html
28. Timed Tests teachrkids.com/
29. Virtual Manipulatives and Tessellations nlvm.usu.edu/en/nav/vlibrary.html
30. Word and logic problems www.mathplayground.com/index.html

Subject #8: Problem Solving

Project #77: We Are All Problem-solvers. Have students try to solve their own problems before asking for help. Make this possible by teaching students the fifteen tech problems that cause 80% of the grief (i.e., my monitor doesn't work, my screen is frozen, etc.). This will make students feel more independent, more competent and allow you to conduct class much more efficiently and effectively

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
<i>Interpreting info, generalizing from facts</i>	<i>Problem-solving, keyboard shortcuts, computer basics</i>	<i>Problem-solving, critical thinking</i>	<i>4.a, 6.a</i>

Grade level: K-8

Prior knowledge: Computer Basics; Project 81: *Problem-solving Board* (grades 3-5)

Time required: minutes

Software required: None

Vocabulary: Socratic Method, inquirers, keyboard shortcuts

Lesson Description

- There are giga-thousands of computer programs—too many to teach. A tech teacher who sets out to teach *programs* will fail. His/her task is to guide students in evaluating knowledge and applying it to new situations, show them how to draw conclusions about the unknown. The result is life-long learners who find passion in the exploration of the unknown. High expectations, but the minimum required to run a tech lab.

Computer Activity

- Teach students as young as kindergarten how to become inquirers who solve their own problems. When they're stuck, ask them if they've seen something similar. What would I—as the teacher—do to solve their problem? Ask the class for help.
- Don't do for them. Throughout the class, seamlessly woven into the fabric of every project, show them problem-solving skills. Keyboard shortcuts. Two-three step solutions. How to think through what could be causing a problem.

- Explain. Make them try. It takes more time at first, and less as the weeks pass. And they're proud of their new-found abilities.
- Address common class problems as a group.
- Provide several solutions for problems—a tool, keyboard shortcut, menu selection. Students decide which makes the most sense. Often, in my classes, it's a keyboard shortcut.
- At the end of class, especially for younger students, give time to visit a favorite website/program if they remember how to get there. It's amazing how many will remember the steps if they want the prize.

Extensions

- Try this website for game-themed problem-solving skills:



Escape from Knab

www.escapefromknab.com/

Troubleshooting Tips

- *I can't remember how we did it (Take a deep breath, think hard. I can give you clues. Maybe that'll help.)*

Most Common Problems Students Face in Tech

	Problem	Solution
1.	Can't exit a program	<i>Alt+F4</i>
2.	Can't find Bold, <i>Italic</i>, <u>Underline</u>	<i>Use Ctrl+B, Ctrl+I, Ctrl+U</i>
3.	Computer/monitor/headphones don't work	<i>Check to see if they're on (CPU power and monitor power) or plugged in</i>
4.	Document disappeared	<i>Undo button (Ctrl+Z)</i>
5.	Double click doesn't work	<i>Push enter</i>
6.	Menu command is grey	<i>Press escape 4 times and try again</i>
7.	Program disappeared	<i>Check the taskbar</i>
8.	Screen is frozen	<i>Clear a dialogue box Press Escape four times</i>
9.	Desktop Shortcut disappeared	<i>Go to Start button-All programs. Select the program.</i>
10.	Start button disappeared	<i>Use Windows button</i>
11.	Toolbar is missing in a program	<i>Right click toolbar area—select it</i>
12.	Toolbar is missing on the internet	<i>Push F11</i>
13.	Website words are too small.	<i>Push Ctrl+ to zoom in; Ctrl- to zoom out.</i>
14.	What's today's date	<i>Hover over clock Shift+Alt+D</i>

Can't find the tool? Solve the problem with a shortcut:

Maximize window	Double click title bar
Quick Exit	Alt+F4
Date and Time	Shift+Alt+D = Date Shift+Alt+T = Time
Show taskbar	WK (Windows key)
Shows desktop	WK+M

Ctrl Key Combinations

CTRL+C: Copy	CTRL+P: Print
CTRL+X: Cut	CTRL+K: Add hyperlink
CTRL+V: Paste	CTRL+E: Center align
CTRL+Z: Undo	CTRL+L: Left align
CTRL+B: Bold	CTRL+R: Right align
CTRL+U: Underline	CTRL+ : Zoom in Internet
CTRL+I: Italic	CTRL- : Zoom out Internet

Fun Keyboard Shortcuts:

<+=+> = ⇔
-+> = →
:+) = ☺

Add Your Favorite:

Subject #8: Problem Solving

Project #78: What's a Word Cloud and How's that Solve Problems? (using the Internet) Create a word cloud to pictorially display ideas, to identify important points in a lesson, or as a pre- or post- unit review

Higher-order thinking skills	Technology-specific	Subject Area/ Learning-specific	Standard: NETS-S
Seeing patterns, organizing, creating	Graphic organizers, internet, multimedia	Graphic organizers, language, communication	2.b, 4.c

Grade level: 2-8
 Prior knowledge: Project 99: *Internet Basx*
 Time required: 10 minutes student time; 30 minutes teacher time to create Wordle
 Software required: internet browser
 Vocabulary: word cloud, graphic organizer, blog, tag

Lesson Description

- Sometimes called 'data visualization', word clouds (as shown in the insets) show graphically what's important



based on word size, color, placement.

- A free cloud creator from

Wordle.net produces word pictures from user-generated input. The more frequently a word appears in the source text, the larger it is in the cloud. (Color in a Wordle is just for aesthetics.)

The result is a graphic design communicating the important concepts of an idea. The inset analyzes Martin Luther King's *I Have a Dream* speech. What do you think his speech emphasized?



- Another popular use of word clouds is to find synonyms and related ideas for writing. Check out Visual Thesaurus at www.visualthesaurus.com, a subscription online service that

visually displays word connections. Word maps let you search for just the right word and then explore related concepts, revealing the way words and meanings relate to each other.

- If you have a blog, you probably have a cloud to rank your entries. This one is from Wordpress.org.
- On the next pages, you see a variety of word displays. What do they all have



in common? They turn black and white numbers into fascinating information, the type that inspires students to explore real-world challenges and facilitate the learning process by replacing intimidation with positive engagement.

Computer Activity

- Take an anonymous survey of which computer program students like best. Or, if you have a blog, have students enter



Never Heard of Tagxedo? Read on

If you haven't discovered [Tagxedo \(http://tagxedo.com\)](http://tagxedo.com), you have a treat in store. As its tagline suggests, it is a tag cloud with style. Think [Wordle \(http://wordle.net\)](http://wordle.net) on steroids. Tagxedo takes words and turns them into pictures, with all the options you couldn't find on Wordle. Start with words (or a website, your Delicious links, an RSS feed, a news event or search results for a term). Select colors, fonts, shape. Here's a list of [101 Ways to Use Tagxedo](#). I've culled my favorites out for you:

- as a discussion of back to school stuff
- what students want to learn about a subject (I'm having my 8th grade Photoshop class create one advising me what they want to learn about photo editing)
- input an essay/book report they've written to see what words pop out as most important. They can then shape it and color it to match the ideas.
- input words from a website they enjoy
- input words from an historic document to see what is the important theme
- any written project normally difficult for visual learners will take on new life with this program
- each student contributes 10 words to describe ****. Write them down on your Smartboard and enter into Tagxedo
- make a Class Tagxedo with the teacher's name larger and students all around him/her
- at the beginning of the school year, ask each student to make a Tagxedo about himself/herself
- make a cover page—turns words about the report topic into a picture
- paste a student essay into Tagxedo. See if other students can work out (a) topic and (b) title of essay. If they fail to do so, this suggests that the essay lacks sufficient focus on the question and student should make some edit, try it again! (thanks [russelltarr](#))
- contrast candidates in a Political debate
- summarize a field trip report
- appreciate other languages. Make Tagxedo with non-Latin languages
- teach students about cultures of the world. Add words about a specific culture and shape the Tagxedo like the country. This can also be done for states.
- make a Guess-the-Quote game. Enter all words from a quote and see if the students can figure out the quote.
- brainstorm a topic. Enter all the words about a topic the student comes up with.
- create a synonym word Wall. Look up synonyms of overused words at thesaurus.com. Enter into Tagxedo.
- Track a poll over time. Make a Tagxedo of knowledge on a subject at beginning/middle/end/whatever to show how ideas are evolving.

For more ideas, visit the [Daily Tagxedo](#).

How do you use it?

Clouds created using <http://manyeeyes.alphaworks.ibm.com> :

A tag cloud—alphabetized by phrases in the book



Subject #10: Science

Project #91: Travel the Universe with Celestia and Google Earth Show students how to use the beautiful color images of Celestia to tour the Universe. The program provides a demo so it's easy for youngsters. For more exploration, have students try Google Moon, Google Mars and Google Sky from within Google Earth (it's different than online). Collaborate with the classroom unit of inquiry into space if possible

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
<i>Observe and recall info, predict and draw conclusions</i>	<i>Use a program you haven't been taught; follow a demo</i>	<i>Google Earth, GE Community</i>	<i>4.b, 6.c</i>

Grade level: 3-8
 Prior knowledge: Basic computer operations, Project 38: Intro to Google Earth
 Time required: 25 minutes
 Software required: Celestia (free download at <http://www.shatters.net/celestia/>), Google Earth—Sky (free download at www.earth.google.com)
 Vocabulary: download, toolbars, drop-down menus, demos, tour, icon


Lesson Description

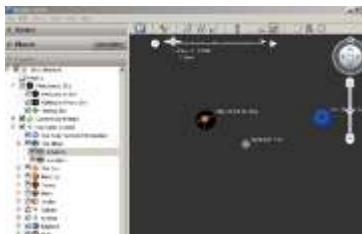
- Use Celestia and Google Earth—Sky to explore the Universe including heavenly objects, constellations, galaxies, stars and more.



- Explore (see inset). Read what others have uploaded. Take your time.
- Can't find what you want? Visit Google Earth's Community Boards. Search for your topic.

Computer Activity

- Open Celestia (see inset)
- Go to 'Help-run demo'
- Go to 'navigation-tour guide'. This provides an overview of the program and the Universe.
- Go to 'navigation-solar system browser'. Try this one for a close-to-home tour.
- Go to 'navigation-star browser'. Select the stars you'd like to visit
- When you've completed this (though my classes often take the entire period on Celestia—and then continue at home), open Google Earth (it must be the current version to access Sky)
- Select Sky tool  or 'Sky' from menu



- Students work independently, without teacher assistance, at their own pace. Don't rush. Whatever they explore is enough.

- Try different demos, tours, menu items; have students select objects of their choice for further investigation

Extensions

- Create a tour for the younger grades to use in their explorations
- Save favorite images to network folders

Troubleshooting Tips

- *I can't find Sky (Do you have the latest version of Google Earth? Go to 'check for updates' to be sure)*

Subject #11: Technology

Project #100: Integrating Web 2.0 into the Classroom. This lesson is a general overview of Web 2.0 tools, including blogs, wikis, class internet homepages, class internet start pages, twitter, social bookmarks, podcasting, photo sharing, online docs, and online calendars. Every educational year, these tools become more and more integral to a thriving, effective class.

Higher-order thinking skills	Technology-specific	Subject Area/ Learning-specific	Standard: NETS-S
<i>Assess value of theories, generalize from facts</i>	<i>Internet, research, critical thinking</i>	<i>Research, problem-solving</i>	<i>5.a, 5.b, 5.c</i>

Grade level: K-8

Prior knowledge: Project 99: *Internet Basx*

Time required: Varies

Software required: Internet browser

Vocabulary: blog, digital citizen, wiki, social bookmarking, photo sharing, podcasts, plagiarism, digital footprint, twitter

Lesson Description

- A **digital citizen** refers to people who interact with others via "digital" tools such as blogs, email, webpages, wikis, twitter, social bookmarking, photo sharing, podcasts, online docs, and more. With that comes obligations:
 - To treat others and their property with respect (for example, plagiarism—even undiscovered—is still immoral and illegal)
 - To act in a responsible manner
 - To look after your own security

According to MIT's Henry Jenkins, children are natural information "hunter-gatherers", making them instinctive digital citizens.

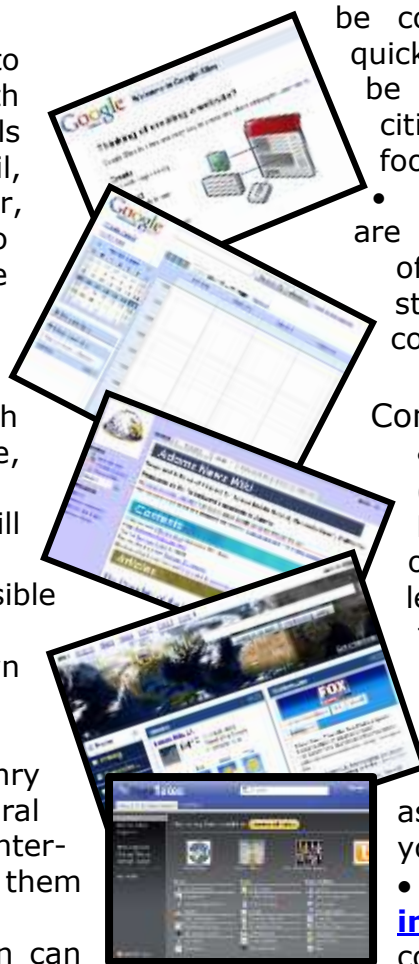
- Because digital information can

be copied and communicated so quickly and so widely, you need to be extra-careful. You, the digital citizen, leave a vast digital footprint.

- The hurdles to "going digital" are not a technical understanding of the tools but the hutzpah to step out of your zone of comfort, into the unknown.

Computer Activity

- Create a **classroom blog** (see Project 27: *Online blogs*). Blogging has quickly become one of the most effective learning tools in education today. It introduces students to new methods of communicating, improves their writing, and motivates them to find their voice. You ask students about it, they'll tell you—blogs make learning fun.
- Create a **classroom internet** (if you have a digital copy of this book, click the link



to see mine). When students log onto the internet, invoke a start page with relevant information for them—news, weather, a To Do list, RSS feeds, search tools, email. Ask them what should be on it. Maybe they'd like sponge websites to fill extra minutes.

You decide. The class decides, but make it exciting! Start pages are seen by some as an outreach of the ever-more-popular social networking. You might like one of these three:
<http://www.google.com/ig>,
<http://www.protopage.com> or
www.pageflakes.com. They both have a huge library of custom fields (called 'flakes' on Pageflakes) to individualize any home page.



- Want more? Build your own **classroom webpage**. Make it a learning portal open for business twenty-four hours a day, seven days a week. It will engage your students while facilitating authentic real-world activities. You can make a free page through Scholastic teacher.scholastic.com/homepagebuilder/index.htm , School Notes at www.schoolnotes.com/ , Webs (used to be FreeWebs—different name but still free) at www.webs.com/ or Google Sites at www.google.com/accounts/ServiceLogin?service=jotspot&passive=true&continue=http%3A%2F%2Fsites.google.com%2F .
- Create **online calendars** for students. These can replace the traditional planners each student carries with them to classes (and loses who knows where, which becomes a traumatic event in young lives). Create your own on [Google](http://www.google.com/calendar)

Calendars with viewing privileges to theirs. You'll see what they've included or forgotten.

- Create a **wiki**—what's a wiki? It's a web page or collection of pages designed to enable registered users to contribute or modify content. The most famous example is www.Wikipedia.com. Wikis can communicate school news, information on a research topic, terminology—whatever you want (see my [fourth grade wiki here](#). I have one for each grade). One elementary school teacher and her students use it for studying and reviewing. For example, after teaching a lesson, her students go to the class wiki and summarize what they understood, making it easier to take in the information. Then, when test time arrives, they work collaboratively in the wiki to study. During this process they all add their notes, correct what's wrong, and review. For more examples, go to www.wikispaces.com/site/for/teachers for free wiki space.

- Set up a **social bookmarking** account to enable students to save links to webpages they use for research, sports, music, and share them with others. Imagine the vast database you can



compile by having students

investigate a topic—say the American Revolution—enter the sites they visit to investigate this question into the classroom favorites making them available to everyone in the class. What an amazing tool! *Web 2.0* by Gwenn Solomon suggests www.backflip.com, blinklist.com, www.furl.net, or www.spurl.net. A popular one you might also consider is del.icio.us.

- Twitter is a free social messaging utility that allows you to stay in touch via short messages. Faster than email, it is much more popular to the Web 2.0 generation. Set up a **twitter** account (twitter.com/) for instant communication with colleagues and parents. I have one account for parents, [one](#) for my PLN (personal learning network). You can incorporate twitter widgets into webpages, add it to your Google desktop/ smartphone/ iPod, even your blog. What's another reason to get comfortable with Twitter? Everyone's talking about it. Might as well know the jargon if you're a computer teacher.



- **Photo sharing**

through www.flickr.com, www.webshots.com or zoto.com. These are free photo sharing sites and have made their way into education by providing teachers and students with an easy way to



upload and share photos on the web. Students can search for photos to help with research, and educators can upload photos for classes, school events, and so on. At my school, students had to complete a photo journal after a field trip. Everyone uploaded their pictures, creating a huge pool to use for the follow-up project. Flickr's good for that because it allows individuals to add not only pictures but videos, organized by tags.

- **Podcasting** is a powerful medium that not only delivers rich educational content, but enhances student/teacher communication. With a nominal amount of equipment, anyone can create audio files and post them to the internet for others to listen to at any time. These audio files can be accessed from a personal computer or handheld device such as an iPod.

Podcasts have become as ubiquitous as classroom webpages. They're a much more efficient method of sharing lectures, instructions, information and appeal to those multi-intelligences that prefer visual and audio. And, they can be replayed over and over to confirm information. Accessible, 24/7, student-centered—what's not to like? Visit those made by other educators at <http://epnweb.org>. For more examples, visit kinderteacher.podomatic.com/, www.dreamextreme.us/podcast/ by a fifth grade class, or <http://www.webcastacademy.net/>.

- Everyone should adopt **online docs** as the standard at school. They're free, which addresses the equity issue of computers for only certain people. They've come a long

way from the original Linux approach. Now, some ([OpenOffice](#), [Office 365](#)) have the feel of Microsoft—the industry standard—and are compatible with this world leader. Even if you don't use it in your school, share it with parents. You'll be surprised how much you'll help. Here are some examples:

- **Writely**: Online Word Processor allowing users to create and edit documents, collaborate online, import Word documents, share documents publicly or privately, publish to a blog, and more.
- **Zoho Writer**: Similar to Writely, Zoho Writer is an Online Word Processor where you create, share, and collaborate on documents, publish to a blog, and import/export documents.
- **Zoho Show**: (in place of MS PowerPoint) Web-based presentation tool to create, edit, publish, and show presentations. Zoho Show is packed with features allowing users to create presentations with text, images, shapes, lists, from pre-formatted templates. Users can also import their existing PowerPoint and OpenOffice (the free and open productivity site at



[www.openoffice.org/](#)) presentations, view presentations online, and export as HTML.

- **Google Spreadsheets**: (In place of MS Excel) Create, store and share spreadsheets on the web. Includes real time editing and chatting with others as well as import and export options. Google Spreadsheets is my web-based spreadsheet application of choice, although on the negative side, it does not provide chart functionality.
 - For more, try [docs.google.com](#), [sourceforge.net/](#), [www.openoffice.org/](#) or others.

Extensions

- If you purchased a digital version of this book, just click any of the blue links.
- Read *Web 2.0: New Tools, New Schools*, from ISTE Publications.
- Read *IT's Elementary! Integrating Technology in the Primary Grades*. Also from ISTE Publications.
- See an open letter to readers about how I use Web 2.0 tools to communicate more effectively with parents and students (at end of this lesson's attachments).

Troubleshooting Tips

- *I can't find the website for these apps. (If you purchased a digital version of this book, click on the link and it'll open in your browser.)*

3 Ways Twitter Makes You a Better Writer

It's not just [Blogs and Wikis that make students better writers](#)—Twitter does, too. Here are three quick ways:



You learn to be concise.

Twitter gives you only 140 characters to get the entire message across. *Letters, numbers, symbols, punctuation and spaces all count as characters on Twitter.* Wordiness doesn't work. Twitter counts every keystroke and won't publish anything with a minus in front of the word count.

At first blush, that seems impossible. It's not, though. It challenges you to know the right word for every situation. People with a big vocabulary are at an advantage because they don't use collections of little words to say what they mean, they jump right to it. All those hints your English teacher gave you—picture nouns and action verbs, get rid of adverbs and adjectives—take on new meaning to the Twitter aficionado.

You learn to be focused

With only 140 characters, you can't get off topic or cover tangential ideas. You have to save those for a different tweet. Tweeples like that trait in writers. They like to hear what your main topic is, hear your thoughts, not your meanderings. When you force yourself to write this way, it really doesn't take a paragraph to make a point. Use the right words, people get it. Consider that the average reader gives a story seven seconds before moving on. OK, yes, that's more than 140 characters, but not much.

Here's an idea. If you feel you must get into those off-topic thoughts. write them in the tweet and then cut cut cut.

Writing short messages helps you perfect the art of "headlining".

Fiction writers call this the title. Bloggers and journalists call it the headline. It has to be cogent and pithy enough to make the audience keep reading, but it also has to grab them. That's a tweet. if you can't grab tweeples in 140 characters, they won't come back to your profile.

Tweets need to be written knowing that tweeples can @reply

Yes. This is the world of social networks where people will read what you say and comment. That's a good thing. It's feedback and builds an online community, be it for socializing or business. Develop a thick skin and take comments with a grain of salt and two grains of aspirin.

Tweet me at [#askatechteacher](#) with your thoughts.

Using an Internet Start Page

An internet start page is the first page that comes up when students select the internet icon. It should include everything students visit on a daily basis (typing websites, research locations, sponge sites) as well as information specific to the current project, class guidelines, the day's 'to do' list, and a calculator. It is one of the great ways teachers can make internetting simple and safe for their students.



Mine includes oft-used websites, blog sites, a To Do list, search tools, email, a calendar of events, pictures of interest, rss feeds of interest, weather, news, a graffiti wall and more. Yours will be different. I used protopage.com, but you can use netvibes or pageflakes.com. Each comes with its own collection of installable 'widgets' to personalize the page to your needs.

Start pages are an outreach of the ever-more-popular social networking. Most search engines offer them also (try iGoogle at www.google.com/ig). They all have a huge library of custom fields (called 'flakes' on Pageflakes) to individualize any home page. And, they're all simple. Don't be intimidated.



When you get yours set up, on the To Do list, put what the child should do to start each computer time. This gives them a sense of independence, adulthood, as they get started while you're wrapping something else up.

41 Websites for Teachers to Integrate Tech into Your Classroom

This list has a little bit of everything, and will kick-start your effort to put technology into your lesson plans:

1. [10 Tech Alternatives to Book Reports](#)
2. [Analyze, read, write literature](#)
3. [Animations, assessments, charts, more](#)
4. [Biomes/Habitats—for teachers](#)
5. [Create a magazine cover](#)
6. [Create free activities and diagrams in a Flash!](#)
7. [Create free activities. No signup](#)
8. [Creative Tools](#)
9. [Crossword Puzzle Maker](#)
10. [Easy Techie Stuff for the Classroom](#)
11. [Easy Web 2.0 tools](#)
12. [Environmental footprint](#)
13. [Flashcards or Worksheets](#)
14. [Free online tools \(Web 2.0\)](#)
15. [Geography Activities—for teachers](#)
16. [Glogster—posters](#)
17. [Hollywood Sq/Jeopardy Templates](#)
18. [How to Videos for Web 2.0](#)
19. [Jeopardy Games in PowerPoint](#)
20. [K-8 school-related videos. Tons](#)
21. [Mapping ideas with a tag globe](#)
22. [Newspapers around the world](#)
23. [Online quizzes you create, online grades](#)
24. [Online tools \(Web 2.0\)—all free](#)
25. [Password creator](#)
26. [Posters—8×10 at a time](#)
27. [PowerPoint stuff](#)
28. [PowerPoint Templates](#)
29. [Print Large Posters in 8×10 bits](#)
30. [Print Posters One Page at a Time](#)
31. [Publish the magazines](#)
32. [Pupil Tube](#)
33. [Puzzle maker—for study guides, etc.](#)
34. [Shelfari—share books with students](#)
35. [So many Free online tools \(Web 2.0\)](#)
36. [Tag clouds](#)
37. [Teach vocab—prefixes/suffixes, word lists, more](#)
38. [Training videos](#)
39. [Turn pictures into Videos—Easily](#)
40. [Turn short stories into page-turning books](#)
41. [Vocab, prefix/suffix, word lists and more](#)

Do you have any to add to this list?

How I Use Web 2.0 Tools in My Classroom to Communicate with Parents

I've been teaching for over twenty years in different schools, different communities, but one factor transcends grades, classes, and culture: Parents want to be involved with what's going on at their children's school. Parent-teacher communication is vital and in my experience, the number one predictor of success for a student. But parents can't always get in to the classroom as a volunteer and see what's written on the white board. They can't always make the school meetings to hear the comings and goings of the school. Why? It's not lack of interest. More likely, they're working; doing that 8-5 thing that insures the future of their families and pays for their children's college education.

Knowing the importance of parent involvement, I feel that my job as a teacher includes not just the lessons I share with students but keeping my parents informed on classroom happenings. I need to be as transparent as possible, get as much information as I can out to parents in a manner they can understand and a format they can access. If I could tape my classes and post them on YouTube, or offer a live feed during class, I would. But I can't, so I try other creative ideas.

Class website

This is teacher directed, but gives me a chance to communicate class activities, pictures, homework, and extra credit opportunities—all the little details that make up a class—with parents. This is a first stop to understanding what's going on in class.

Class wiki

This is student-directed, student-centered. Students post summaries of their tech class, examples of their work, projects they've completed on the wiki for everyone to share. This way, parents see the class through the eyes of the students. And so do I, which is my way of assuring that what I think happened, did.

Twitter

I love tweets because they're quick, 140 character summaries of activities, announcements, events. They take no time to read and are current.

Emails

I send lots of these out with reminders, updates, FAQs, discussion of issues that are confusing to parents. I often ask if I'm sending too many, but my parents insist they love them.

Open door

I'm available every day after school, without an appointment. Because I have so many other ways to stay in touch, my classroom rarely gets so crowded that I can't deal with everyone on a personal level.

Subject #11: Technology

Project #106: The Digital Photo. Take a picture of each student in September. Use it for projects throughout the year.

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
<i>Creating, integrating, organizing parts</i>	<i>Digital photos, computer basics, multimedia</i>	<i>Any—history, grammar, spelling</i>	<i>1.a, 2.b</i>

Grade level: K-8
 Prior knowledge: none
 Time required: 30 minutes (for entire class)
 Software required: Windows
 Vocabulary: Digital, network, thumbnail,

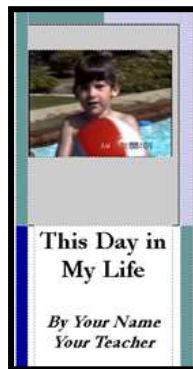
Lesson Description

- Digital pictures are versatile, interactive and successfully engage today's students. Nothing is more relevant to a child than a picture of herself/himself.
- Digital image activities compliment all curriculum areas.

Computer Activity

- Take a digital picture of each student. Show it to them on the camera and save in a network-accessible folder.
- Use it as a signature in older learners and a focal point in for younger students.

• Create an "Average Computer Student" (see inset) using thumbnails of all students. This one has my 400+ students. I used Photoshop to change the backgrounds, to simulate the colors of a student's clothing,



hair, smile, etc. Students love it. They bring parents in to see it, search for their picture as well as friends and siblings.

- Add to projects (such as #51 pictured in upper inset from a trifold project about history) and KidPix greeting cards (pictured in lower inset). Make it into wallpaper (#90—Windows Wallpaper). Use it as a customized placemark in Google Earth tours (Project #40) or background in a slideshow.

Extensions

- Take a video of students in September, discussing their goals for the year. Use it in a movie making project (not taught in this book).

Troubleshooting Tips

- *There are 400 pictures. I can't find mine! (When you're finished taking student pictures, set up a file folder for each class and have someone in each class help you pick out who belongs there. Students love seeing all their friends' pictures as they look for their own.)*



Projects—by Grade

Kindergarten-Second grade

Internet

- Project 56: Free Online Keyboarding Programs
- Project 60: Online Sustained Silent Reading Sites
- Project 68: Sponge Activities for Language Arts
- Project 76: Sponge Activities using Math
- Project 77: We Are All Problem-solvers
- Project 82: Sponge Activities using Webcams, Virtual Tours and Videos
- Project 97: Sponge Activities in Science
- Project 99: Internet Basx
- Project 100: Integrating Web 2.0 into the Classroom.

Keyboarding

- Project 56: Free Online Keyboarding Programs
- Project 102: Keyboard Shortcuts.
- Project 103: The Computer's Body

KidPix

- Project 69: Using Shapes in KidPix Holiday Cards

MS Excel

- Project 71: Beginning Graphs in Excel
- Project 73: Graph a Class Survey in Excel
- Project 75: Tessellations in Excel

MS PowerPoint

- Project 65: My Projects in PowerPoint

Problem solving

- Project 102: Keyboard Shortcuts.

Technology Basx

- Project 61: Every Day Vocabulary—Part I
- Project 77: We Are All Problem-solvers

- Project 99: Internet Basx
- Project 102: Keyboard Shortcuts
- Project 103: The Computer's Body
- Project 105: Geek Speak
- Project 106: The Digital Photo

Second-Fourth grade

Internet

- Project 60: Online Sustained Silent Reading Sites
- Project 63: Online Spelling Practice
- Project 68: Sponge Activities for Language Arts
- Project 76: Sponge Activities using Math
- Project 82: Sponge Activities using Webcams, Virtual Tours and Videos
- Project 85: Intermediate Research on the Internet
- Project 88: Elementary Research on the Internet
- Project 90: Windows and the Internet
- Project 97: Sponge Activities in Science
- Project 99: Internet Basx
- Project 100: Integrating Web 2.0 into the Classroom.

Keyboarding

- Project 56: Free Online Keyboarding Programs
- Project 102: Keyboard Shortcuts.

KidPix

- Project 69: Using Shapes in KidPix Holiday Cards
- Project 92: Rainforest Animals in KidPix

MS Excel

- Project 70: Keeping a Timecard in Excel
- Project 71: Beginning Graphs in Excel
- Project 73: Graph a Class Survey in Excel
- Project 75: Tessellations in Excel

MS PowerPoint

- Project 67: Slideshow of Student Skills in PowerPoint

MS Publisher

- Project 110: Assessment in Publisher

MS Word

- Project 84: A Picture is Better-in Word Part I
- Project 87: A Picture is Better-in Word Part II I
- Project 94: Where am I II(using MS Word)?
- Project 96: Ecosystems Table in Word

Problem solving

- Project 102: Keyboard Shortcuts.

Technology Basx

- Project 61: Every Day Vocabulary—Part I
- Project 77: We Are All Problem-solvers
- Project 90: Windows and the Internet
- Project 102: Keyboard Shortcuts
- Project 103: The Computer's Body
- Project 105: Geek Speak
- Project 106: The Digital Photo

Third-Sixth grade

Email

- Project 98: Email Basx
- Project 101: Don't Print That Homework! (Email it instead)

Google Earth

- Project 91: Travel the Universe with Celestia and Google Earth

Internet

- Project 56: Free Online Keyboarding Programs
- Project 60: Online Sustained Silent Reading Sites
- Project 62: Sponge Activities using PowerPoint
- Project 63: Online Spelling Practice
- Project 68: Sponge Activities for Language Arts
- Project 76: Sponge Activities Using Math
- Project 78: What's a Word Cloud and How's That Solve Problems?
- Project 82: Sponge Activities using Webcams, Virtual Tours and Videos
- Project 85: Intermediate Research on the Internet
- Project 89: Sponge Activities in Research

- Project 90: Windows Wallpaper
- Project 97: Sponge Activities in Science
- Project 99: Internet Basx
- Project 100: Integrating Web 2.0 into the Classroom.

Keyboarding

- Project 57: Keyboarding for Homework
- Project 59: Reading While Keyboarding
- Project 102: Keyboard Shortcuts.

MS Excel

- Project 70: Keeping a Timecard in Excel
- Project 71: Beginning Graphs in Excel
- Project 72: Check Your Math Homework in Excel
- Project 73: Graph a Class Survey in Excel
- Project 75: Tessellations in Excel
- Project 79: Clarify with Excel

MS PowerPoint

- Project 62: Sponge Activities using PowerPoint

MS Publisher

- Project 110: Assessment in Publisher

MS Word

- Project 64: Spelling Practice in Technology Quizzes
- Project 66: A Vocabulary Table in Word
- Project 70: What's My WPM? Typing in Word
- Project 84: A Picture is Better—Part I
- Project 87: A Picture is Better—Part II
- Project 94: Where am I—Part II?
- Project 96: Ecosystems Table in Word
- Project 109: Assessment in MS Word

Problem solving

- Project 78: What's a Word Cloud and How's That Solve Problems?
- Project 81: The Problem-solving Board
- Project 102: Keyboard Shortcuts.
- Project 104: The Vocabulary Board

- Project 105: Geek Speak

Technology Basx

- Project 61: Everyday Vocabulary—Part 1
- Project 62: Sponge Activities Using PowerPoint
- Project 64: Spelling Practice in Technology Quizzes
- Project 66: A Vocabulary Table in Word
- Project 77: We Are All Problem-solvers
- Project 81: The Problem-solving Board
- Project 90: Windows Wallpaper
- Project 99: Internet Basx
- Project 103: The Computer's Body
- Project 104: The Vocabulary Board
- Project 105: Geek Speak
- Project 106: The Digital Photo
- Project 107: The Screen Shot
- Project 108: Team Challenge

Fourth-Seventh grade

Email

- Project 98: Email Basx
- Project 101: Don't Print That Homework!

Google Earth

- Project 91: Travel the Universe with Celestia and Google Earth

Internet

- Project 56: Free Online Keyboarding Programs
- Project 60: Online Sustained Silent Reading Sites
- Project 62: Sponge Activities using PowerPoint
- Project 63: Online Spelling Practice
- Project 68: Sponge Activities for Language Arts
- Project 76: Sponge Activities Using Math
- Project 78: What's a Word Cloud and How's that Solve Problems?
- Project 82: Sponge Activities using Webcams, Virtual Tours and Videos
- Project 83: Which Website is Best?
- Project 85: Intermediate Research on the Internet
- Project 86: How to Search the Internet

- Project 89: Sponge Activities in Research
- Project 90: Windows Wallpaper
- Project 97: Sponge Activities in Science:
- Project 99: Internet Basx
- Project 100: Integrating Web 2.0 into the Classroom.

Keyboarding

- Project 56: Free Online Keyboarding Programs
- Project 57: Keyboarding for Homework
- Project 59: Reading While Keyboarding
- Project 64: Spelling Practice in Technology Quizzes
- Project 102: Keyboard Shortcuts.

MS Excel

- Project 72: Check Your Math Homework in Excel
- Project 73: Graph a Class Survey in Excel
- Project 74: Mastering Excel (for Beginners)
- Project 75: Tessellations in Excel
- Project 79: Clarify with Excel

MS PowerPoint

- Project 62: Sponge Activities Using PowerPoint
- Project 95: Famous Inventors and How They Invented

MS Publisher

- Project 110: Assessment in Publisher

MS Word

- Project 66: A Vocabulary Table in Word
- Project 70: What's My WPM?
- Project 83: Which Website is Best?
- Project 84: A Picture is Better—Part I
- Project 87: A Picture is Better—Part II
- Project 93: Outlining the Science Textbook
- Project 96: Ecosystems Table
- Project 109: Assessment in MS Word

Problem-solving

- Project 77: We Are All Problem-solvers

- Project 78: What's a Word Cloud and How's that Solve Problems?
- Project 81: The Problem-solving Board
- Project 102: Keyboard Shortcuts.

Technology Basx

- Project 61: Everyday Vocabulary—Part I
- Project 62: Sponge Activities Using PowerPoint
- Project 64: Spelling Practice in Technology Quizzes
- Project 81: The Problem-solving Board
- Project 90: Windows Wallpaper
- Project 102: Keyboard Shortcuts
- Project 103: The Computer's Body
- Project 104: The Vocabulary Board
- Project 105: Geek Speak
- Project 106: The Digital Photo
- Project 107: The Screen Shot
- Project 108: Team Challenge

Fifth-Eighth grade

Email

- Project 98: Email Basx
- Project 101: Don't Print That Homework!

Google Earth

- Project 91: Travel the Universe with Celestia and Google Earth

Internet

- Project 56: Free Online Keyboarding Programs
- Project 60: Online Sustained Silent Reading Sites
- Project 62: Sponge Activities using PowerPoint
- Project 63: Online Spelling Practice
- Project 68: Sponge Activities for Language Arts
- Project 76: Sponge Activities Using Math
- Project 78: What's a Word Cloud and How's that Solve Problems?
- Project 82: Sponge Activities using Webcams, Virtual Tours and Videos
- Project 83: Which Website is Best?
- Project 85: Intermediate Research on the Internet
- Project 86: How to Search the Internet

- Project 89: Sponge Activities in Research
- Project 90: Windows Wallpaper
- Project 96: Ecosystems Table in Word
- Project 97: Sponge Activities in Science
- Project 99: Internet Basx
- Project 100: Integrating Web 2.0 into the Classroom.

Keyboarding

- Project 56: Free Keyboarding Programs Online
- Project 57: Keyboarding for Homework
- Project 59: Read While Keyboarding
- Project 64: Spelling Practice in Technology Quizzes
- Project 102: Keyboard Shortcuts.

MS Excel

- Project 72: Check Your Math Homework in Excel
- Project 74: Mastering Excel (for Beginners)
- Project 75: Tessellations in Excel
- Project 79: Clarify with Excel
- Project 80: Two Heads Study Better Than One

MS PowerPoint

- Project 62: Sponge Activities Using PowerPoint

MS Publisher

- Project 110: Assessment in Publisher

MS Word

- Project 66: A Vocabulary Table in Word
- Project 70: What's My WPM? Typing in Word
- Project 84: A Picture is Better—Part I
- Project 87: A Picture is Better—Part II
- Project 93: Outlining the Science Textbook
- Project 94: Where Am I?
- Project 96: Ecosystems Table
- Project 109: Assessment in MS Word

Problem solving

- Project 77: We Are All Problem-solvers

- Project 81: The Problem-solving Board
- Project 102: Keyboard Shortcuts.

Technology Basx

- Project 61: Everyday Vocabulary—Part I
- Project 62: Sponge Activities Using PowerPoint
- Project 64: Spelling Practice in Technology Quizzes
- Project 77: We Are All Problem-solvers
- Project 81: The Problem-solving Board
- Project 90: Windows Wallpaper
- Project 102: Keyboard Shortcuts
- Project 103: The Computer's Body
- Project 104: The Vocabulary Board
- Project 105: Geek Speak
- Project 106: The Digital Photo
- Project 107: The Screen Shot
- Project 108: Team Challenge

Appendices

National Education Technology Standards for Students

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.
- c. use models and simulations to explore complex systems and issues.
- d. identify trends and forecast possibilities.

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- c. develop cultural understanding and global awareness by engaging with learners of other cultures.
- d. contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

- a. plan strategies to guide inquiry.
- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- d. process data and report results.

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

- a. identify and define authentic problems and significant questions for investigation.
- b. plan and manage activities to develop a solution or complete a project.
- c. collect and analyze data to identify solutions and/or make informed decisions.
- d. use multiple processes and diverse perspectives to explore alternative solutions.

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a. advocate and practice safe, legal, and responsible use of information and technology.
- b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. demonstrate personal responsibility for lifelong learning.
- d. exhibit leadership for digital citizenship.

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.
- c. troubleshoot systems and applications.
- d. transfer current knowledge to learning of new technologies.

Index

Adobe Photoshop	13	graphic	3, 22, 23, 95, 114, 121, 129, 142, 189
Alt+F4	93, 109	Graphs.....	79, 192, 193, 194, 196
animated GIFs	68	Higher-order thinking skills....	12, 29, 31, 35, 39, 43, 45, 56, 57, 58, 61, 62, 74, 76, 79, 81, 83, 86, 89, 92, 95, 101, 103, 105, 111, 114, 116, 119, 121, 124, 127, 128, 129, 131, 133, 135, 142, 146, 150, 152, 161, 162, 164, 169, 173, 178, 179, 180, 184, 188
Assessment	184, 185, 186, 188, 190, 192, 195, 196, 198, 199, 200, 201	homework..	16, 31, 32, 39, 56, 81, 146, 147, 161, 179, 182, 191
biomes.....	121	incorporation of projects into lessons	10
blog.....	95, 152, 154, 155	integration of technology.....	10, 11
Bloom's Taxonomy	22, 25	internet....	10, 13, 15, 16, 25, 26, 29, 43, 54, 56, 62, 71, 90, 93, 95, 103, 110, 111, 116, 119, 120, 121, 124, 125, 126, 127, 133, 136, 142, 144, 150, 152, 161, 174, 177, 182, 183, 234
bookmarks	43, 56, 116, 234	Inventors	135, 137, 192, 198
brochure	189	ISTE	11, 155, 202
bullet.....	23, 62, 63, 116, 131, 132, 135	journal.....	154
Card	189, 190	keyboard shortcuts.....	14, 45, 92, 131, 132, 133, 162
Celestia	12, 13, 128, 191, 195, 197, 199, 232	KEYBOARD SPEED QUIZ.....	41
checklists	12	keyboarding	15, 16, 29, 31, 35, 39, 124
class survey	86	KidPix ..	13, 58, 74, 127, 129, 135, 178, 191, 193, 194, 228
classroom webpage	153	lab rules.....	182
clone	183	magazine	116
Collaboration Skills	22	Marzano Model for Thinking Skills.....	25
Communication skills	22	menu.....	93, 109
Computer Lab	14	Moodle.....	45
crop	179, 183	Mouse skills.....	28, 74
Ctrl+B	93, 109	MS Excel	See Excel
date	93, 109	MS Word ...	13, 61, 111, 114, 116, 121, 131, 133, 142, 147, 155, 161, 184, 192, 195, 196, 201
digital citizen	152	National Education Technology Standards	22, 202
Digital Citizenship	25, 202	NETS-S....	11, 12, 13, 22, 29, 31, 35, 39, 43, 45, 54, 56, 57, 58, 61, 62, 71, 74, 76, 79, 81, 83, 86, 89, 90, 92, 95, 101, 103, 105, 110, 111, 114, 116, 119, 121, 124, 126, 127, 128, 129, 131, 133, 135, 142, 144, 146, 150, 152, 161, 162, 164, 169, 173, 178, 179, 180, 184, 188
Digital pictures.....	178	No Child Left Behind	11
Dolch.....	41, 56		
Double click.....	93, 109		
drawing	27, 89, 126		
email	3, 10, 14, 15, 31, 56, 57, 146, 147, 148, 152, 153, 154, 161, 179, 182		
EMAIL ETIQUETTE	148		
Escape.....	93, 109		
Excel	13, 74, 76, 79, 81, 83, 86, 89, 96, 101, 103, 155, 174, 177, 181, 182, 183, 192, 198, 200, 228		
Exit a program.....	93, 109		
flier	189, 190		
Geek Speak	173, 235		
Geometry Walk	74		
Google Earth .	12, 13, 15, 16, 126, 128, 144, 191, 232		
Grading Rubric.....	78		
grading rubrics	12		
grammar....	23, 45, 56, 57, 59, 63, 68, 114, 116, 121, 122, 129, 133, 135, 136, 140, 147, 178		

Note-taking	131	spelling	23, 39, 45, 56, 57, 59, 61, 63, 68, 71, 110, 114, 116, 119, 121, 122, 126, 129, 133, 135, 136, 140, 142, 144, 147, 148, 173, 178, 184, 188, 235
online calendars	153	Sponge Activities..	54, 71, 90, 110, 126, 144, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 227, 228, 231, 232
online docs	152, 154	Starfall	44, 150, 151, 227, 233
Online Keyboarding ..	29, 191, 193, 194, 195, 197, 198, 199, 227	story	43, 62, 71, 133, 228
Online Spelling.	56, 191, 194, 195, 197, 199, 228	Survey..	83, 84, 86, 192, 193, 194, 196, 198
Oregon Trail	13	Sustained Silent Reading.....	43
organizers	23, 95, 114, 121, 133, 142	table.....	61, 111, 142, 146, 173, 185, 186
Outline.....	177	taskbar	93, 109
Paint.....	58, 89	Teach the Teacher’	105
parts of the computer	183	Technology Operations and Concepts.	27, 202
Password	109	Technology Projects.....	11
photo sharing	152, 154, 234	templates.....	155, 189, 190, 228
Photoshop	45, 127, 178, 183	tessellation.....	89
Podcasting.....	154	toolbar.....	93, 109
podcasts	152, 234	Tour the World.....	62
PowerPoint .	13, 54, 58, 62, 65, 66, 119, 135, 136, 137, 155, 174, 177, 180, 183, 192, 228	trifold	15
Presentation skills	27, 105	TuxPaint	58
Problem Solving .	24, 95, 101, 103, 105, 182, 202, 231	twitter	152, 154, 234
Problem-solving Board	16, 92	virtual tours	110
Project-based learning	10	vocabulary ..	15, 16, 23, 27, 28, 45, 54, 169, 173, 228
prt scr	179	Vocabulary Board.....	16, 173, 235
Publisher...	13, 174, 176, 182, 183, 188, 190	wallpaper	27, 28, 127, 178, 183, 232
rainforest	111, 129	Web 2.0...	10, 152, 154, 155, 191, 193, 194, 196, 198, 200, 233
Report	11, 124	website extensions	111
research...	10, 26, 62, 67, 96, 105, 111, 116, 124, 126, 135, 136, 152, 153, 154, 184, 188, 202, 231	websites	13, 29, 39, 43, 63, 71, 90, 105, 110, 116, 119, 120, 124, 126, 127, 136, 144, 150, 151, 153, 233, 234
Research skills.....	119	wiki	45, 57, 152, 153, 233
sample projects	12	Windows	11, 13, 93, 109, 127, 162, 163, 165, 178, 183, 192, 194, 195, 196, 197, 198, 199, 200, 201, 232
screen	93, 109	Word Cloud	95, 191, 196, 197, 198, 199, 200, 231
screen shot	111, 161, 179	YouTube.....	110, 231
simulations.....	24, 202		
Sky’.....	128		
slideshow	58, 59, 63, 68, 119, 135, 136, 140, 235		
social bookmarking.....	152, 153		

