

# **Teacher Manual**

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## **2nd Grade Technology**

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***32-LESSON COMPREHENSIVE CURRICULUM***

***SIXTH EDITION***

**by Ask a Tech Teacher**

# **SECOND GRADE TECHNOLOGY**

**A 32-LESSON COMPREHENSIVE CURRICULUM**

**SIXTH EDITION**

*Part Three of Nine in the SL Technology Curriculum*

*Sixth Edition 2016*

*Part of Structured Learning's nine-volume Technology Curriculum*

*Visit the companion website at <http://askatechteacher.com> for more tech-in-ed resources*

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## Introduction

The educational paradigm has changed—again. Technology has become granular to learning, included in educational standards from Kindergarten onward, like these from Common Core:

- Expect students to demonstrate sufficient command of **keyboarding** to type a minimum of one page [three by sixth grade] in a single sitting
- Expect students to **evaluate different media** [print or digital]
- Expect students to **gather relevant information** from print and digital sources
- Expect students to integrate and evaluate **information presented in diverse media** and formats
- Expect students to **interpret information** presented visually, orally, or quantitatively [such as an interactive Web pages]
- Expect students to make **strategic use of digital media**
- Expect students to use **glossaries or dictionaries, both print and digital** ...
- Expect students to use information from **illustrations and words in print or digital** text
- Expect students to communicate with a **variety of media**
- Expect students to **use text features and search tools** (e.g., key words, sidebars, **hyperlinks**) to locate information

But how is this taught?

With the **Structured Learning Technology Curriculum**. Aligned with [Common Core State Standards\\*](#) and [National Educational Technology Standards](#), and using a time-proven method honed in classrooms, students learn the technology that promotes literacy, critical thinking, problem-solving, and decision-making. It's project-based. The purpose is not to teach step-by-step tech skills (like adding borders, formatting a document, and creating a blog). There are many fine books for that. What this curriculum does is guide you in providing the **right information at the right time**.

Just as most children can't learn to read at two, or write at four, they shouldn't be required to place hands on home row in kindergarten or use the internet before they understand the digital risks and responsibilities. The Structured Learning curriculum makes sure students get what they need at the right age with proper scaffolding. The end result is a phenomenal amount of learning in a short period of time.

● ● ●  
“New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. Digital texts confront students with the potential for continually updated content and dynamically changing combinations of words, graphics, images, hyperlinks, and embedded video and audio.”

—CCSS

● ● ●  
● ● ●  
“Use of technology differentiates for student learning styles by providing an alternative method of achieving conceptual understanding, procedural skill and fluency, and applying this knowledge to authentic circumstances.”

—CCSS

If there are skills you as teacher don't know, visit our Help blog ([AskATechTeacher.com](http://AskATechTeacher.com)) and co-teaching wikis (if link below doesn't work, copy-paste into your address bar):

- [K-3<sup>rd</sup> grade — http://k-3tech.wikispaces.com/](http://k-3tech.wikispaces.com/)
- [4<sup>th</sup> grade — http://fourthgradetech.wikispaces.com/](http://fourthgradetech.wikispaces.com/)
- [5<sup>th</sup> grade — http://5thgradetechclass.wikispaces.com/](http://5thgradetechclass.wikispaces.com/)

They're free and staffed by teachers who use the curriculum.

### What's in the SL Technology Curriculum?

The SL Curriculum is project-based and collaborative, with wide-ranging opportunities for students to show their knowledge in the manner that fits their communication and learning style. Each grade level in the curriculum includes five topics that should be woven into 'most' 21<sup>st</sup>-century lesson plans:

- *keyboarding—more than typing*
- *digital citizenship—critical with the influx of Chromebooks and iPads*
- *problem-solving—to encourage independence, critical thinking*
- *vocabulary—decode unknown words in any subject quickly with technology*
- *publishing-sharing—to promote collaborative learning*

In most grade-level curricula, you will find full lessons devoted to keyboarding, digital citizenship, and problem solving.

Here's a quick overview of what is included:

- *list of assessments, images, articles*
- *articles that address tech pedagogy*
- *Certificate of Completion for students*
- *curriculum map of skills taught*
- *monthly homework (3<sup>rd</sup>-8<sup>th</sup> only)*
- *posters to visually represent topics*
- *Scope and Sequence of skills taught*
- *step-by-step weekly lessons*

Each weekly lesson includes:

- *assessment strategies*
- *big idea*
- *class exit ticket*
- *class warm-up*
- *Common Core Standards*
- *differentiation strategies*
- *educational applications*
- *essential question*
- *examples, rubrics, images, printables*
- *ISTE Standards*
- *materials required*
- *pedagogic articles (if any)*
- *problem solving for lesson*
- *skills—new and scaffolded*
- *steps to accomplish goals*
- *suggestions to unpack in class, lab*
- *suggestions depending upon digital device*
- *supporting links*
- *teacher preparation required*
- *time required to complete*
- *vocabulary used*
- *weekly how-to video (online)*

Throughout the text are links to extend lessons, add enrichment, and/or provide flexibility in your teaching. No PDF? Usually the website is spelled out. If not, Google the name or contact our help site.

## Programs Used

Programs used in this curriculum focus on skills that serve the fullness of a student's educational career. Free alternatives are noted where available:

General		2-8
Email	Drawing program	Word processing tools
Google Earth	Image editor	Spreadsheet tools
Web tools	Keyboarding tool	Desktop publisher
		Presentation tools

## What's New in the Sixth Edition?

A good tech curriculum is aligned with best practices in technology and education. That means it must be updated every few years. Consider the changes to technology in education since SL's Fifth Edition published in 2013:

- Windows updated its platform—twice.
- iPads have been joined by Chromebooks as a common classroom digital device.
- There is greater reliance in the classroom on internet-based tools than software. This underscores the importance of teaching digital citizenship to even the youngest learners.
- Student work is often collaborative and shared.
- Student work is done anywhere, not just the classroom and home, meaning it must be synced and available across multiple platforms, multiple devices.
- Keyboarding skills are often critical, especially to summative year-end testing.
- Technology in the classroom is the norm, but teacher training isn't.
- Education is focused on college and career with tech an organic, transformative tool.
- Teachers have moved from 'sage on the stage' to 'guide on the side'.
- Students have been raised on digital devices. They want to use them as learning tools.
- Using technology is no longer what 'geeky' students do. It's what all students want to do.
- Printing is being replaced with sharing and publishing.
- More teachers are willing to try technology when used authentically.

In response, here are changes you'll find in the Sixth Edition:

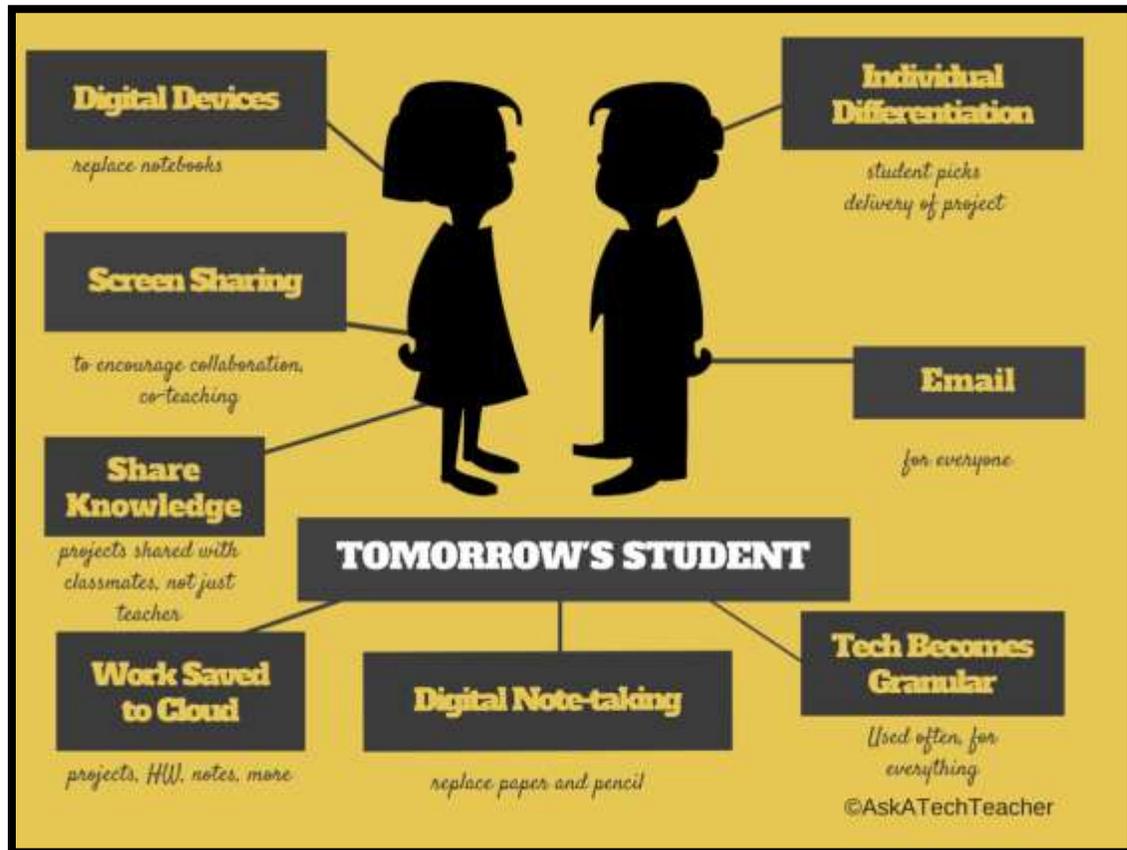
- The lesson audience is now as likely to be the **grade-level teacher as the tech teacher**. You'll learn how to unpack the lesson regardless of which hat you wear.
- Ideas are provided to deliver lessons on all **popular digital devices** including desktop computers, Chromebooks, and iPads.
- The importance of **higher order thinking**—analysis, evaluation and synthesis—is called out.
- The importance of **'habits of mind'**—critical to college and career goals—is included.
- It's easy to recognize which **skills are scaffolded** from earlier lessons and which are new.
- Each lesson points out **academic applications** of technology.
- Students learn to **understand the process**, not just replicate a skill.
- **Collaboration and sharing** is often required.

- **Differentiation** is encouraged. Teachers learn strategies to meet students where they learn.
- Each lesson includes a **warm-up and exit ticket**, to assess and reinforce student learning.
- A **Table of Images** and a **Table of Assessments** are included for easy reference.
- Updated **Scope and Sequence** includes more references to Common Core.
- **Curriculum Maps** shows which month topics are covered as well as which grade.
- Each grade-level curriculum includes **student workbooks** (sold separately).
- Each grade level has a **lesson on coding**. These are free-standing and can be moved to any spot in the curriculum—like December for Hour of Code.

### Who Needs This Book

You are the Tech Specialist, Coordinator for Instructional Technology, IT Coordinator, Technology Facilitator or Director, Curriculum Specialist, or tech teacher—tasked with finding the right project for a classroom. You have a limited budget, less software, and the drive to do it right no matter roadblocks.

Figure 1—Tomorrow's student



Or you are the classroom teacher, a tech enthusiast with a goal this year—and this time you mean it—to integrate the wonders of technology into lessons. You've seen it work. Others in your PLN are doing it. And significantly, you want to comply with Common Core State Standards, ISTE, your state requirements, and/or IB guidelines that weave technology into the fabric of inquiry.

You are a homeschooler. Even though you're not comfortable with technology, you know your children must be. You are committed to providing the tools s/he needs to succeed. Just as important: Your child WANTS to learn with these tools!

How do you reach your goal? With this curriculum. Teaching children to strategically and safely use technology is a vital part of being a functional member of society—and should be part of every school's curriculum. If not you (the teacher), who will do this? To build Tomorrow's Student (Figure 1) requires integration of technology and learning. We show you how.

## How to Use This Book

Figure 2a shows what's at the beginning of each lesson. Figure 2b shows what you'll find at the end:

Figure 2a—Beginning of each lesson; Figure 2b—end of each lesson

**Week #1—Introduction**

<b>Vocabulary</b>	<b>Problem solving</b>	<b>Skills</b>
Where to use lesson Domain-specific vocab	Lesson-specific tech tips	What students learn and/or scaffold
<b>Academic Applications</b>	<b>Materials Required</b>	<b>Standards</b>
Tech in life, submitting homework, problem solving	Tech posters, after school tech programs, homework sub	CCSS: Anchor standards
<b>Essential Question</b>	<b>Assessment Strategies</b>	
EQ: How do I use the computer?	Assessment ideas	Anecdotal, joined classroom conversations, participated with a sense of order and excitement, completed exit ticket, room as student found it, Habits of mind observed
<b>Big Idea</b>	<b>Teacher Preparation</b>	
Big idea: ess of computer components, fu... ques, and basic computer operat	How do you prepare	Step-by-step
<b>Steps</b>		
<b>Time required:</b> 45 minutes <b>Class warm-up:</b> None		How long you need AND warm-up

- Academic Applications
- Assessment Strategies
- Big Idea
- Class Warm-up
- Essential Question
- Material Required
- Problem solving
- Skills
- Standards
- Steps
- Teacher Prep
- Time Required
- Vocabulary

**Class exit ticket:** *Solving Board with a tech problem they face. This board can be used for the upcoming Problem Solving Board.*

**Differentiation**

- Early finishers: visit class internet start page for websites (article at end of Week 2).
- Take a field trip to school server room to see how data is collected.

**How to differentiate for student needs**

- Class differentiation strategies
- Class exit ticket

The curriculum map in Figure 3 shows what's covered in which grade. Where units are taught multiple years, teaching reflects increasingly less scaffolding and more student direction.

Figure 3—Curriculum Map—K-8

	Mouse Skills	Vocabulary - Hardware	Problem-solving	Platform	Keyboard	WP	Slide-shows	DTP	Spread-sheet	Google Earth	Search/ Research	Graphics/ Coding	WWW	Games	Dig Cit
<b>K</b>	☺	☺	☺	☺	☺					☺		☺	☺	☺	☺
<b>1</b>	☺	☺	☺	☺	☺			☺	☺	☺		☺	☺	☺	☺
<b>2</b>		☺	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺
<b>3</b>		☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
<b>4</b>		☺	☺		☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
<b>5</b>		☺	☺		☺	☺		☺	☺	☺	☺	☺	☺	☺	☺
<b>6</b>		☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
<b>7</b>		☺	☺	☺	☺	☺			☺	☺	☺	☺	☺	☺	☺
<b>8</b>		☺	☺	☺	☺	☺			☺	☺	☺	☺	☺	☺	☺

If you're the grade-level teacher, here's how to use the map:

- Determine what skills were covered earlier years. Expect students to transfer that knowledge to this new school year.
- Review the topics and skills, but don't expect to teach.
- If there are skills listed as covered prior years, confirm that was done. If they weren't (for whatever reason), when you reach lessons that require the skills, plan extra time.

## 2nd Grade Technology Curriculum: Teacher Manual

Figure 4 is a month-by-month curriculum map for this grade level. In the student workbook, students complete this themselves or as a group when they finish each lesson.

*Figure 4—Curriculum Map—2nd grade, month-to-month*

	<b>Sept</b> <i>Wk1-4</i>	<b>Oct</b> <i>Wk5-8</i>	<b>Nov</b> <i>Wk9-12</i>	<b>Dec</b> <i>Wk13-16</i>	<b>Jan</b> <i>Wk17-20</i>	<b>Feb</b> <i>Wk21-24</i>	<b>March</b> <i>Wk25-28</i>	<b>April</b> <i>Wk29-32</i>
<i>Blogs</i>								
<i>Class mgmt tools</i>	X							
<i>Coding/Programming</i>		X						
<i>Communication</i>		X	X	X	X	X		X
<i>Computer etiquette</i>	X							
<i>Critical thinking</i>	X		X					
<i>DTP</i>				X				
<i>Digital Citizenship</i>	X					X	X	
<i>Google Earth</i>		X						
<i>Graphics</i>			X	X	X	X		
<i>Hardware</i>	X	X						
<i>Internet</i>	X		X	X	X	X	X	
<i>Internet privacy</i>	X						X	
<i>Keyboarding</i>	X	X	X	X	X	X	X	X
<i>Problem solving</i>	X	X	X	X	X	X	X	X
<i>Publishing/sharing</i>			X				X	X
<i>Research</i>		X					X	X
<i>Slideshows</i>					X	X	X	X
<i>Speaking and Listening</i>								X
<i>Spreadsheets</i>								
<i>Visual learning</i>		X		X	X	X	X	X
<i>Vocabulary</i>	X	X	X	X	X	X	X	X
<i>Webtools</i>			X	X	X	X	X	X
<i>Word Processing</i>			X		X		X	

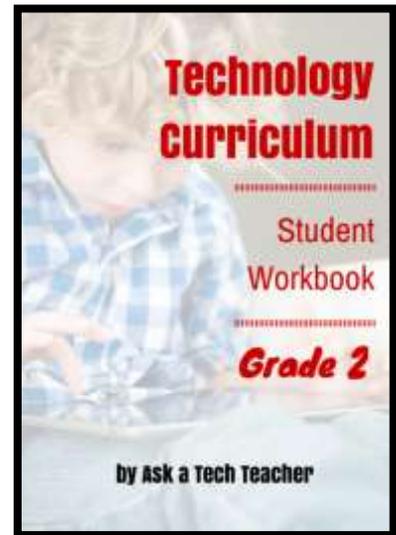
Some topics are covered every month. The strategy: spiral and scaffold learning until it's habit.

Here are hints to assist using this curriculum:

- Join the free grade-level companion wiki with the coupon code from the front of the book. If you have difficulty, email [askatechteacher@gmail.com](mailto:askatechteacher@gmail.com) for a Join Code. Here, you get weekly videos on how to teach the upcoming lesson.
- Invest in student digital workbooks ([sold separately — http://bit.ly/1FVU6Sm](http://bit.ly/1FVU6Sm)), a perfect student-centric companion to your teacher guide. Here are suggestions on how to use the workbooks:

- Full-color projects are at student fingertips complete with examples and directions (licensing may vary depending upon the plan your school selected).
  - With nominal direction from you, students learn tech skills. This is perfect if your school teaches technology across classes and developing good digital citizens is a priority.
  - Embedded links enable students to click and go—no searching for the site, typing in addresses, or suffering through spelling errors.
  - Workbooks can be shared through a reader where you and students add your own notes, how-tos and more.
  - Students can work at their own pace.
- If you want to use student workbooks in your class, here's how:
    - buy a multi-user license (room, school, district) to install eworkbooks on multiple devices (even at home with some licenses)
    - provide a weekly preview by reviewing the lesson on the class screen

Figure 5--Student workbook

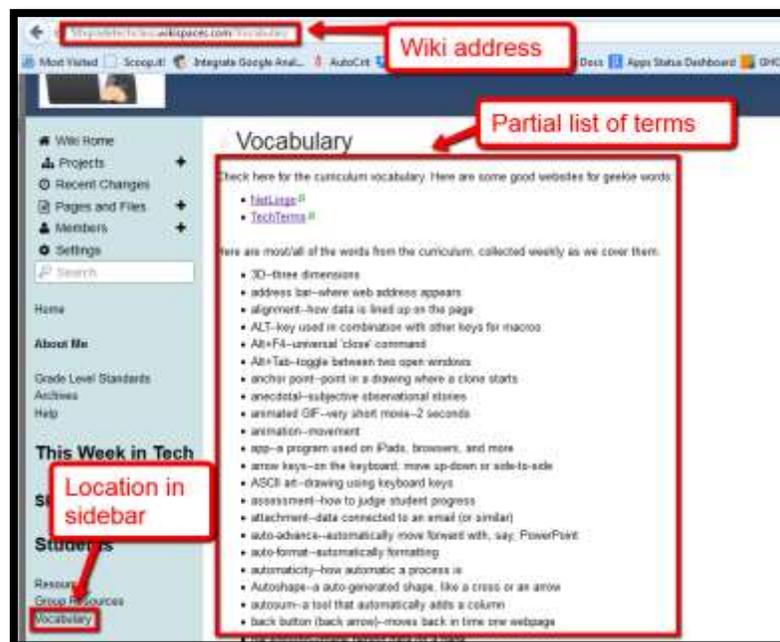


- Teach lessons in the order presented in the book (grades K-5). Lessons introduce, reinforce, and circle back on skills and concepts. Certain skills scaffold others so you want them solid before moving on. Resist the urge to mix up lessons, even if it seems your perfect time for a particular project comes earlier/later than placement in the book. **One exception: Coding/Programming.** Unpack this lesson when it works best for you.
  - Personalize the skills taught in each lesson to your needs with 'Academic Applications'. These are suggestions for blending learning into your existing curriculum.
  - Each lesson starts with a warm-up to get students back into tech and give you time to finish up a previous class. This is especially useful to the tech teacher and the LMS.
  - Each class includes an Exit Ticket to wrap up learning.
  - 'Teacher Preparation' often includes chatting with the grade-level team. Why?
    - tie tech into their inquiry
    - offer websites for early-finishers that address their topics
- Check off completed items on the line preceding the activity so you know what to get back to when you have time. If you have the ebook, use iAnnotate, Goodreader, Subtext, Notable (Google for websites), or another annotation tool that works for your devices.
  - We understand when kids and technology collide, sometimes the class is too excited about the learning to move on. Two solutions:



- Leave line in front of uncompleted activity blank and return to it when you have time. You'll notice after using this curriculum a few years that students finish material faster.
- Take an extra week. Most school years run 35-40 weeks. This book includes 32 lessons. This provides flexibility also for missed time due to holidays, snow days, or field trips.
- If a link doesn't work, copy-paste the address into your internet browser. **A note: Links die.** If a link doesn't work even after copy-pasting, email us. We'll let you know a work-around.
- If there is no link, this means it was already provided or shows up readily in a Google search.
- Consider expecting students to back up their work—as a life habit. This can be onto a flash drive, by emailing the document to themselves, or saving to a secondary location on their digital device.
- Don't skip the 'Problem Solving' section, even if the problems don't come up in your class. Bring them up! These are important scaffolding for student ability to think critically and troubleshoot issues when you won't be there to help.
- Always use lesson vocabulary. Students gain authentic understanding of word use by your example. A complete glossary of lesson vocabulary can be found in the Companion Wiki (joined via the Coupon Code), in the sidebar tab 'Vocabulary' (Figure 6 is from the 5<sup>th</sup> grade Companion Wiki). Here, you'll find several hundred easy-to-understand definitions of domain-specific tech words.

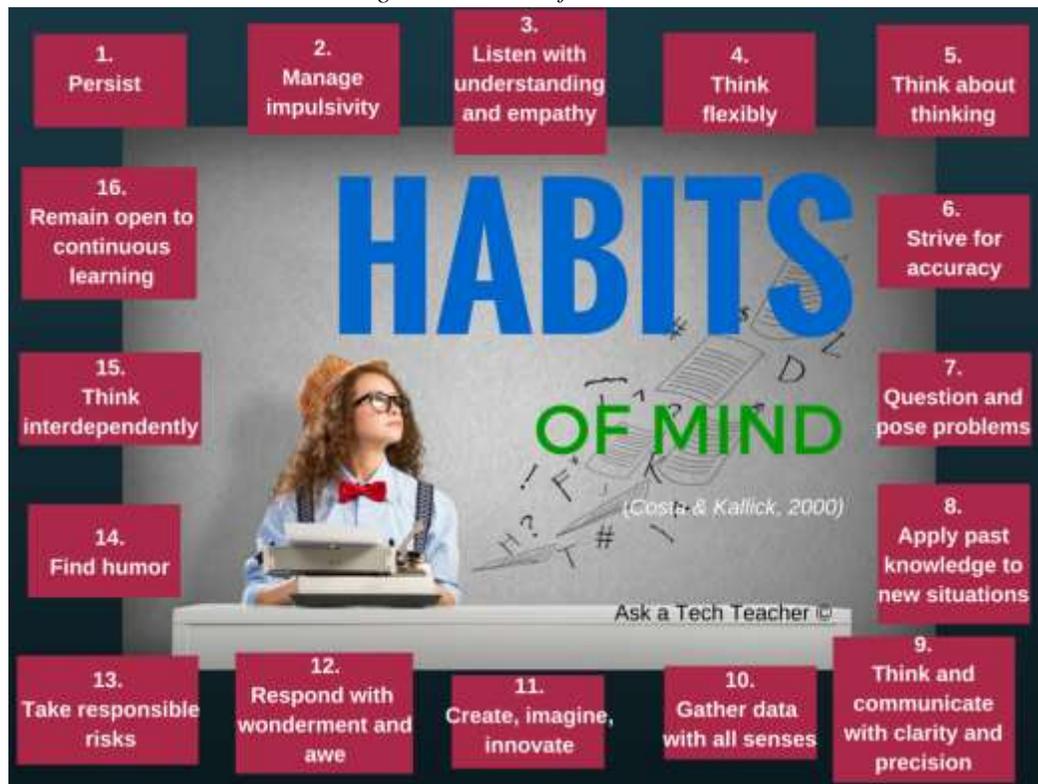
Figure 6—Glossary of tech ed vocabulary



- Some lessons provide options. For example, Lesson 7 has multiple choices to teach coding. Review the entire lesson prior to teaching and choose the option most suited to your students. All will accomplish the tech goals.
- Is class shorter than 45 minutes? Highlight items most important to your goals and leave the rest for 'later'.

- Expect students to be risk takers. Don't rush to solve their problems. Ask them to think how it was done in the past. Focus on problems listed in the lesson, but embrace all that come your way.
- Expect students to direct their own learning. You are a 'guide on the side'. You are a facilitator, not lecturer. Learning is accomplished by both success and failure. Don't expect to have free time while students work. Move among them to provide feedback and assistance, and make anecdotal observations on their keyboarding, problem-solving, and vocabulary decoding skills.
- Encourage student-directed differentiation, opportunities for them to present their knowledge in ways suited to their abilities. If the Big Idea and Essential Question can be accommodated in other ways, embrace those.
- If you have the digital book, zoom in on posters, rubrics, lessons to enlarge as needed.
- Use as much technology as possible in your classroom—authentically and agilely. Make it adaptive and native. Encourage students to do the same whether it's a smartphone timing a quiz, a video of activities posted to the class website, or an audio file with student input. If you treat tech as a tool in daily activities, so will students.
- Remind students they've learned and understand skills. Check them off in the Scope and Sequence additional times as you circle back on them.
- Lessons expect students to develop 'habits of mind'. You can read more about Art Costa and Bena Kallick's discussion of these principles at <http://habitsofmind.org>, in Figure 7, and in the article at the end of Lesson #1. In a sentence: Habits of Mind ask students to engage in their learning, not simply recite or memorize.

Figure 7—Habits of Mind



- If you need resources on specific topics, click for websites (<http://askatechteacher.com/great-kids-websites/>) or apps (<http://askatechteacher.com/great-apps/>).

-  indicates video
-  indicates work with a partner
-  indicates an article
-  indicates a topical poster (in the Appendix)
-  indicates annotatable material available in student workbooks (like rubrics)
- If you need resources on specific topics, click for websites (<http://askatechteacher.com/great-kids-websites/>) or apps (<http://askatechteacher.com/great-apps/>).
- If the poster you want is too small and not in the Appendix, there are free printable copies of many [here](http://askatechteacher.com/getting-started/free-posters/) (<http://askatechteacher.com/getting-started/free-posters/>).
- Every effort has been made to accommodate Chromebooks, PCs, Macs, iPads, and other digital devices. You will often see examples in multiple platforms. If the activity is impossible in a particular digital device (i.e., iPads don't have mice; software doesn't run in Chromebooks), focus on the **Big Idea and Essential Question**—the skill taught and its application to inquiry. Adapt instructions to the tool you use as you work through the steps.

*Figure 8—Compatible digital devices*

A desktop PC, iMac, laptop, MacBook, Chromebook, iPad, or smartphone



- Throughout the year, circle back on lessons. It takes five times seeing a skill to get it—
  - *First:* They barely hear you
  - *Second:* They try it
  - *Third:* They remember it
  - *Fourth:* They use it outside of class
  - *Fifth:* They tell a friend
- **Need more help?** Go to Ask a Tech Teacher® (<http://askatechteacher.com>) run by teachers using the curriculum or the discussion board on the grade-level companion wiki. Leave a comment or question. You can also email [admin@structuredlearning.net](mailto:admin@structuredlearning.net) or [askatechteacher@gmail.com](mailto:askatechteacher@gmail.com).

## Typical Lesson

Each lesson requires about 45 minutes a week, either in one sitting or spread throughout the week, and can be unpacked:

- In the grade-level classroom
- In the school's tech lab

Both are covered in each lesson. In general terms, here's how to run a lesson in **the tech lab**:

- Post a daily **simple written schedule** on class screen:
  - Warm up
  - Main activity
  - Exit ticket

This gives students a visual guideline to get started. Add it to your class blog or website to serve those students who aren't present. Expect students to start with the warm-up when they arrive to class.

- **Warm up about 10 minutes**, often with typing practice. Some days, youngers work on alphabet sites such as [Bembo's Zoo](#).
- Three students complete **Board presentations** (grades 3-8).
- If it's the end of a grading period, use **Scope and Sequence to review** skills accomplished.
- If starting a **new project, review it** and take questions. If you're in the middle of one, students use the balance of class to work towards completion. Monitor activities, answer questions, help as needed.
- As often as possible, give **younger students two weeks** to finish a project—one to practice, one to save/export/share/print. This redundancy reinforces new skills and mitigates stress. If it's week two, start with the project and finish with typing so students have ample time to work.
- List age-appropriate websites that **tie into inquiry** for students who complete the current project on class internet start page. Students know websites on this page can be used during free time.
- **Class exit ticket** might include lining up in arrays, answering a poll posted on the class screen, or simply leaving stations as students found them.
- Always **use tech wherever possible**. Model what you ask of them.

Here's how to run the lesson in **the grade-level classroom**:

- Take the lesson pieces mentioned above and scatter them throughout the week. For example:
  - **3-10 minutes for the class warm-up**—at the start the week
  - **10-15 minutes keyboarding practice**—any day
  - **10-15 minutes Board presentations**—any day
  - **15-35 minutes for the project**—any day

Figure 9--Five times for buy-in



- **2-3 minutes for the class exit ticket**—to reinforce learning
- Check off accomplished activities so you know what remains each week.
- In every class, **use tech wherever possible**. Be the model for what you're asking of them.

Here are useful pieces to extend this curriculum:

- *Teacher manual*—the roadmap. That's this book.
- *Student workbooks* (<http://bit.ly/1FVU6Sm>)—allow students to be self-paced
- *Teacher companion videos* (<http://bit.ly/1DlIFUB>)—preview before lesson. Free with K-5 books
- *Digital Citizenship curriculum* (<http://bit.ly/1JgKioZ>)— if this is a focus of your school
- *Keyboarding Curriculum* (<http://bit.ly/1JgKy7t>)— if this is a focus of your school
- *Class internet start page*—provides a class agenda, themed links, and more. Created by you, the teacher, in Protospace (Figure 10a), Diigo, LiveBinders (Figure 10b), Symbaloo (Figure 10c) or another option.

Figure 10a—Start page using Protospace; 10b—LiveBinders; 10c—Symbaloo



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## About the Authors

**Ask a Tech Teacher** is a group of technology teachers who run an award-winning resource [blog](#). Here they provide free materials, advice, lesson plans, pedagogical conversation, website reviews, and more to all who drop by. The free newsletters and articles help thousands of teachers, homeschoolers, and those serious about finding the best way to maneuver the minefields of technology in education.

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## **K-6 TECHNOLOGY SCOPE AND SEQUENCE©**

*Aligned with ISTE Standards*

*Check each skill off with I/W/M/C under 'ISTE' as students accomplish it  
(‘ISTE’ refers to the ISTE Standard addressed by the skill)*

**Intentionally  
deleted**

# Lesson #2 Digital Tools in the Classroom

Vocabulary	Problem solving	Skills
<ul style="list-style-type: none"> <li>Annotation</li> <li>Class start page</li> <li>Decode</li> <li>Desktop</li> <li>Digital tool</li> <li>Flying windows</li> <li>Font</li> <li>Icons</li> <li>iPad</li> <li>Menus</li> <li>Network</li> <li>Ribbons</li> <li>Right click</li> <li>Start button</li> <li>Taskbar</li> <li>Toolbar</li> </ul>	<ul style="list-style-type: none"> <li>Monitor doesn't work (check power)</li> <li>Shift doesn't work (Check caps lock)</li> <li>Can't find drawing program (use 'search' on Start button)</li> <li>I've never used an iPad before (take it slowly and follow directions)</li> <li>What color do I use to annotate?</li> <li>How do I print (Ctrl+P)</li> <li>Taskbar's gone (push flying windows)</li> <li>I use Caps Lock to capitalize a letter (for one letter: Use Shift)</li> <li>Why can't I touch neighbor's mouse? (help—with your words)</li> <li>Where's class internet start page (where was it last year?)</li> <li>There are too many digital tools</li> </ul>	<p style="text-align: center;"><b><u>New</u></b></p> <p style="text-align: center;">Log-ins Class website Annotation tools</p> <p style="text-align: center;"><b><u>Scaffolded</u></b></p> <p style="text-align: center;">Digital citizenship Digital tools Digital portfolio Annotate workbooks (if using student workbooks)</p>
<b><u>Academic Applications</u></b>	<b><u>Materials Required</u></b>	<b><u>Standards</u></b>
General, digital citizenship, digital literacy	Internet, digital devices, drawing program, keyboarding software, student workbooks (if using)	CCSS Student Portrait NETS: 1b, 2b

### Essential Question

*How does technology make learning easier and more authentic?*

### Big Idea

*Students develop an awareness of the digital tools that contribute to education*

### Teacher Preparation

- Have class digital tools ready to use.
- Know student log-ins for digital tools that require one.
- Talk with grade-level team so you tie into conversations.
- Integrate domain-specific tech vocabulary into lesson.
- Know which tasks weren't completed last week and whether they are necessary to move forward.
- Know whether you need extra time to complete this lesson with your student group.

### **Assessment Strategies**

- Followed directions
- Anecdotal observation
- Able to annotate workbook (if using workbooks)
- Completed exit ticket
- Joined class conversations
- Made decisions that followed class rules
- Left room as s/he found it
- Higher order thinking: analysis, evaluation, synthesis
- Habits of mind observed

## Steps

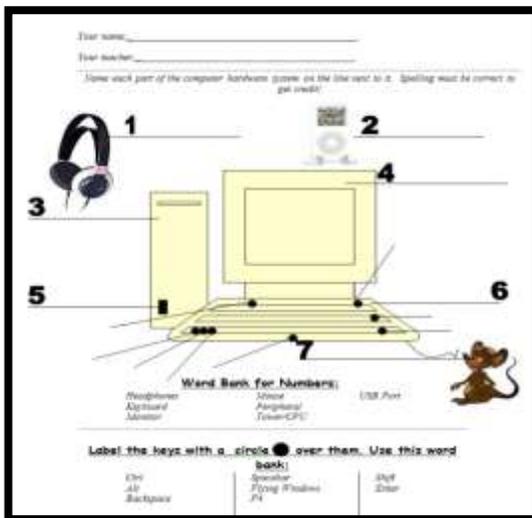
**Time required:**      *45 minutes in one sitting or spread throughout the week*  
**Class warm-up:**      *None*

Review hardware (adapt this to your particular digital device):

- mouse buttons—left and right, double click, scroll; how to hold mouse
- CPU—power button, disk drives, connections
- monitor—power button, screen
- headphones—volume, port
- keyboard—separate or built-in
- peripherals—what are those?

Find the parts listed in *Figure 15a* on your school’s devices or *Figure 15b* for iPads (See *Assessment 1* and *2* at end of lesson). For example, where are ‘headphones’? Or mouse? USB Port? The microphone? And the charging dock on a desktop computer? What are the smartphone parts (see *Assessment 3* at end of lesson)?

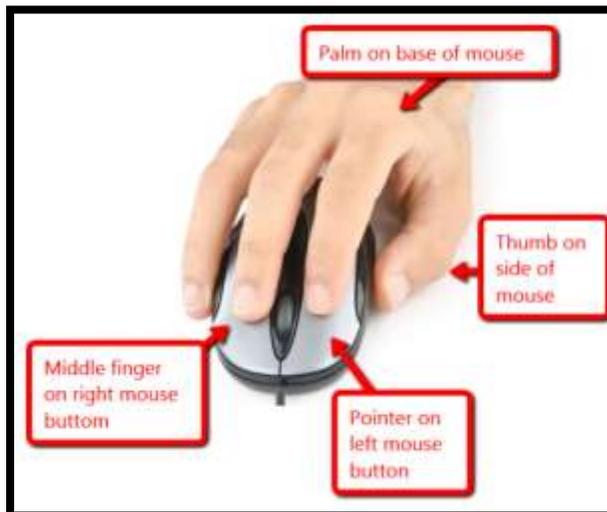
*Figure 11a—Parts of computer; 15b—Parts of iPad*



Have students review mouse hold with a neighbor (see *Figure 16*).



*Figure 12—Mouse hand position*



\_\_\_\_\_ If using student workbooks, have students annotate their copy of the hardware parts (*Assessment 1, 2 or 3*) with a tool like Notability, iAnnotate, Notable, or Adobe Acrobat. More on this digital tool later in the lesson.



\_\_\_\_\_ Review how parts connect—behind CPU, under table, in ports, or built in. Adapt to student digital device at school and home whether a laptop, Chromebook, iPad, or desktop.

\_\_\_\_\_ Discuss the proper care of a digital device. What rules would students add to the following list?

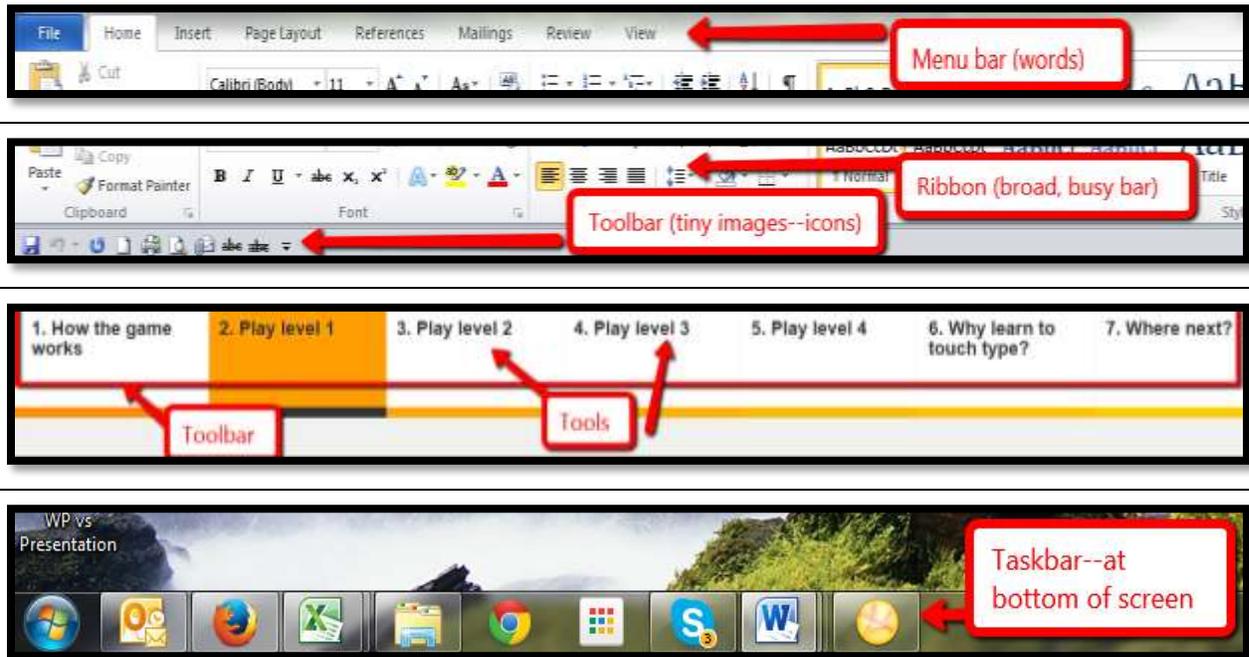
- *no food or drink around computer—not even water*
- *no banging on keyboard, monitor or any other part of computer*
- *demonstrate how to help a neighbor: Use words, don't touch their computer parts*

\_\_\_\_\_ Discuss the difference between:

- *menus (Figure 17a)*
- *ribbons (Figure 17b)*
- *toolbars (Figure 17b and 17c)*
- *taskbar (Figure 17d)*

\_\_\_\_\_ These organizational techniques are confusing. Circle back on them often.

*Figure 13a—Menu bar; 17b and c—Toolbar; 17b—Ribbon; 17d—Taskbar*



## Log-ins

\_\_\_\_\_ Review how students log into digital devices using user names and passwords.

\_\_\_\_\_ Required log-ins may include:

- *class etextbooks*

- *keyboarding program*
- *class website (with grades)*
- *class math and/or reading program*
- *online webtools*

\_\_\_\_\_ Have a method for tracking log-ins. It might be as simple as a 3x5 card (*Figure 18*):

- *Keep a physical copy by the student’s seat or in their personal binder.*
- *Keep a digital copy in the student’s digital portfolio.*
- *Take a snapshot to keep on their digital device for quick reference.*

*Figure 14—Curation of log-ins*

<b>User Name/Passwords</b>		
<b>PROGRAM</b>	<b>UN</b>	<b>PASSWORD</b>
<b>Keyboarding Program</b>		
<b>Math Program</b>		
<b>Computer</b>		
<b>Class wiki</b>		
<b>Add'l</b>		

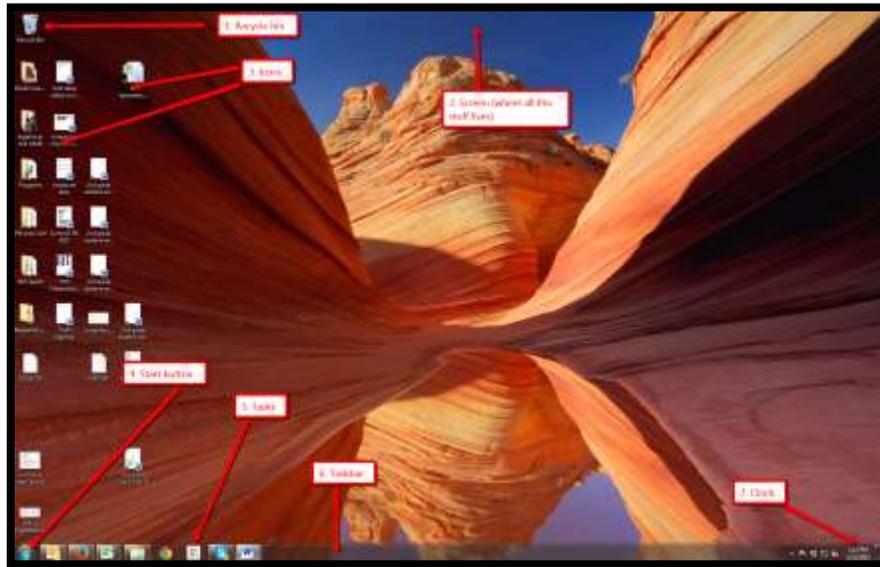
\_\_\_\_\_ Have students log into school digital portfolios—website, class pages, other.

## Desktop

\_\_\_\_\_ Review the screen that greets students when they sign onto their digital device. For example, *Figure 19* is a Windows desktop and *Figure 20* is for a Chromebook:

- clock
- icons
- recycle bin
- screen
- start button
- taskbar
- tasks

*Figure 15—Desktop*



\_\_\_\_\_ Where are these Windows desktop parts on a Chromebook screen (*Figure 20*):

*Figure 16—Chromebook desktop*



## Class Digital Tools

### Student workbooks

\_\_\_\_\_ If you're using the student PDF workbooks that go along with this tech curriculum, introduce them to students now. Show how to open them from their digital device, access links, find rubrics and project samples, and take notes using the annotation tool. Students can circle back to review concepts or forward to preview upcoming lessons.

### Annotation Tool

\_\_\_\_\_ If you're using student workbooks, show students how to annotate their copies with a tool such as iAnnotate for iPads and Chromebooks (*Figure 21a*), Notability for iPads (*Figure 21b*), Notable for Chromebooks, Adobe Acrobat (*Figure 21c*) or another tool available in your school.

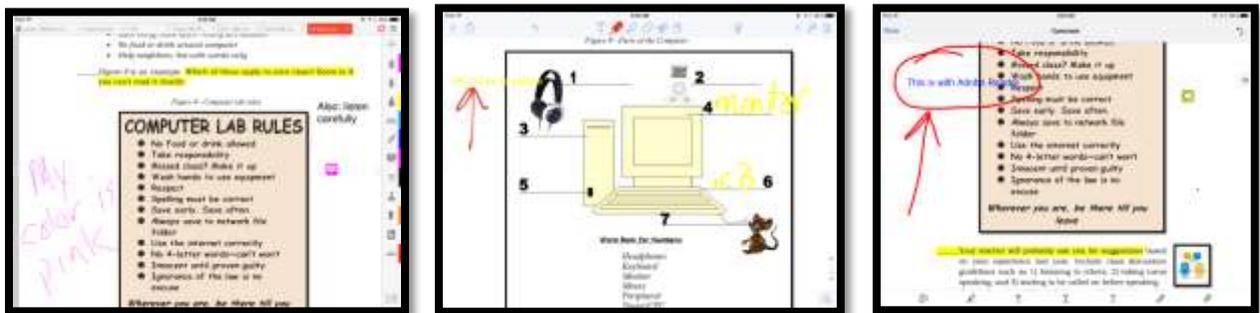


\_\_\_\_\_ If students are sharing a PDF (for example, it's loaded on a computer that multiple classes visit), show how to select a personal color that's different from other students.

\_\_\_\_\_ Review options available in the annotation tool you use, such as:

- *highlighting*
- *text*
- *note*
- *freeform*

*Figure 17a—PDF annotation with iAnnotate; 21b—Notability; 21c—Acrobat*



### Student digital portfolios

\_\_\_\_\_ Discuss how students use digital portfolios (also known as digital lockers or digital binders):

- *store work (in Cloud) required in other classes or at home*
- *interact, collaborate, and publish with peers, experts, or others*
- *contribute to project teams*
- *edit or review work in multiple locations*
- *submit class assignments*

\_\_\_\_\_ There are a variety of digital portfolios that satisfy some or all of the above: 1) folders on school network, 2) fee-based programs from companies such as [Richer Picture](#) 3) cloud-based storage

like [Dropbox](#) or [Google Apps](#), 4) online collaborative sites like Google Classroom or [Wikispaces](#), or 5) an LMS like MyBigCampus and Otus (Google names for addresses if interested).

\_\_\_\_\_ Have students practice by uploading something to their digital portfolio.

### **Class Calendar**

\_\_\_\_\_ Demonstrate how to access and edit (if they are permitted to do this) class calendar that tracks due dates, class events, and other important information.

*Figure 18a—Class calendar with GAFE; 22b—Padlet; 22c—DTP*



\_\_\_\_\_ Try Google Calendar (*Figure 22a*—part of GAFE), Office 365, a Padlet calendar template (*Figure 22b*), or another option (i.e., Publisher shown in *Figure 22c*). If possible, embed it into class website.

\_\_\_\_\_ Assign a student each month to be responsible for adding events to the class calendar.

### **Class Internet Start Page**

\_\_\_\_\_ An internet start page is a website that comes up when students open the internet. It organizes critical content into a single location and curates links students will use on a weekly basis.

\_\_\_\_\_ Include what students visit daily (i.e., guidelines, calendar, 'to do' list, typing websites, research locations, sponge sites, calculator) as well as info specific to current project.

\_\_\_\_\_ *Figure 23* is an example using [Protopage.com](#).

*Figure 19—Internet start page*



### **Class website**

\_\_\_\_\_ Available with Google Apps for Education, these websites encourage reflection, organization, logical thinking, and embedding of sharable projects i.e., Tagxedos and Animotos. If your school doesn't have GAFE, free websites can be created at [Weebly](#), [Wix](#), or a blog account like [Wordpress](#) (Google for addresses).

### **Google Apps (or Office 365)**

\_\_\_\_\_ Show students how to access their student account, use the storage drive, and share documents with others. Demonstrate similarity between Google Docs/Sheets/Presentation and Office.

### **Class Webtools**

\_\_\_\_\_ Discuss the wide variety of digital tools students will use this year to complete projects. Let students know that you are open to alternative suggestions. For example, if you suggest Wordle, a student can request Tagxedo. Approval is required, but it will be granted if the tool fulfills project needs. Expect students to use evidence to build their case, compare-contrast their tool to your suggestion, and draw logical conclusions.

\_\_\_\_\_ *Figures 24a-d* are examples of webtools you might use with your students. These may include:

- *online math program (i.e., Khan Academy)*
- *digital keyboarding program (i.e., Type to Learn, Typing Web)*
- *an avatar creator for digital citizenship*
- *a badge to assess progress*
- *digital storytelling with a comic creator*
- *RAZ Kids for close reading*

*Figure 20a—Avatar; 24b—DTP badge; 24c—digital storytelling; 24d—RAZ Kids*



\_\_\_\_\_ If any class requires a log in, have students test their log-in.

### **Vocabulary Decoding Tools**

\_\_\_\_\_ Show students how to access the native apps or webtools available on their digital devices used to decode vocabulary. Depending upon the device, these will be on the homepage, the browser toolbar, a shortcut, or a right click. Show students how to quickly look up words rather than

skipping over content that includes the word. Let them practice with several words in this lesson's *Vocabulary* list.

\_\_\_\_\_ Options for dictionary tools include:

- [Kids Wordsmyth \(https://kids.wordsmyth.net/we/\)](https://kids.wordsmyth.net/we/)
- [Merriam-Webster for Kids \(http://www.wordcentral.com/\)](http://www.wordcentral.com/)
- [Picture Dictionary \(http://kidspicturedictionary.com/\)](http://kidspicturedictionary.com/)
- right click on word in MS Word and select 'Look up'.
- right click in Google Apps (i.e., Google Docs) and select 'research'.

\_\_\_\_\_ Have students attempt to access all school digital tools.

**Class exit ticket:**     **Have students vote in a poll for which tool they'll use the most this year.**

### Differentiation

- Add a field trip to the server room--open up the ceiling and track the cables from various classrooms back to the switches and the modem.
- Sometime at start of school year, visit classroom and explain how class digital devices are the same as tech lab digital devices—on a smaller scale (see directions at end of lesson, "**Take Tech to Classroom**"). The visual of you in their classroom well conveys that message.
- Those who finish: Go to class internet start page and visit websites that tie into class conversations. If necessary, go over how to access this link with class.
- Replace with 1<sup>st</sup> Grade Lesson #2 Brainstorm Ideas in [curriculum extendors \(http://www.structuredlearning.net/book/k-6-curriculum-extender/\)](http://www.structuredlearning.net/book/k-6-curriculum-extender/).



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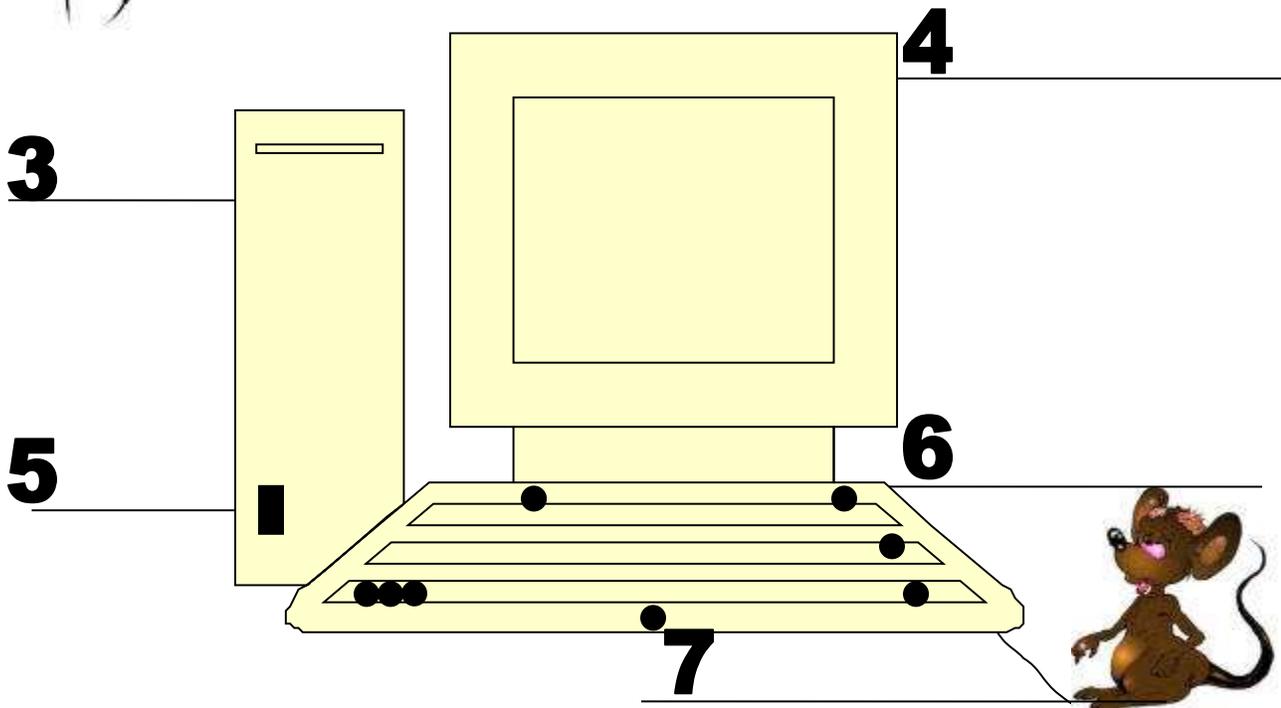
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Assessment 1—Hardware Quiz

# HARDWARE—PARTS OF THE COMPUTER

Name each part of computer Draw your own lines for key names. Spelling must be correct to get credit



**Word Bank:**

Headphones  
Keyboard  
Monitor

Mouse  
Peripheral  
Tower/CPU

USB Port

**Label the keys with a circle ● over them. Use this word**

**bank:**

Ctrl  
Alt  
Backspace

Spacebar  
Flying Windows  
F4

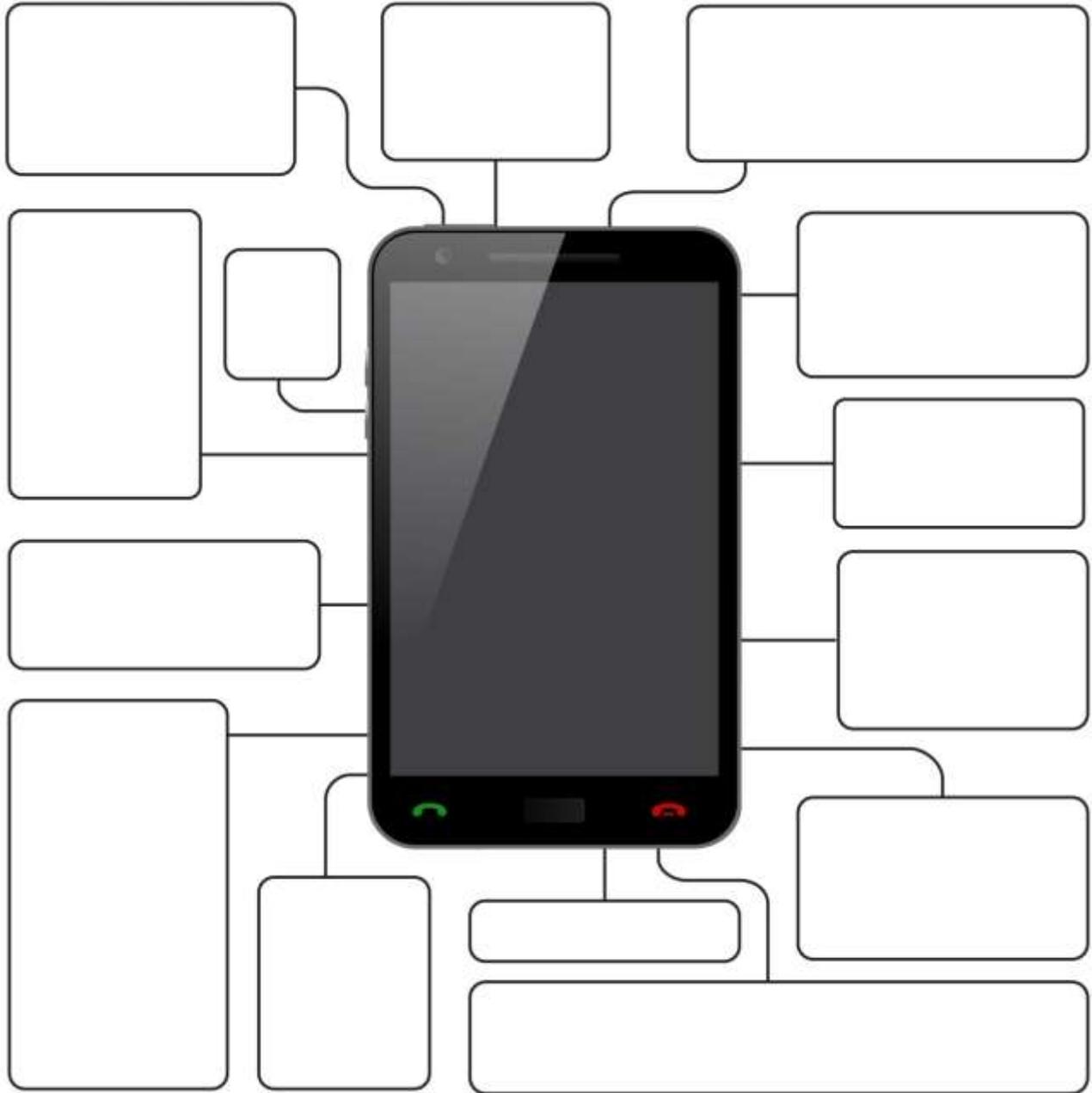
Shift  
Enter



*Assessment 3—Parts of a Smartphone*

**PARTS OF THE SMARTPHONE**

*Adapt this to your needs*

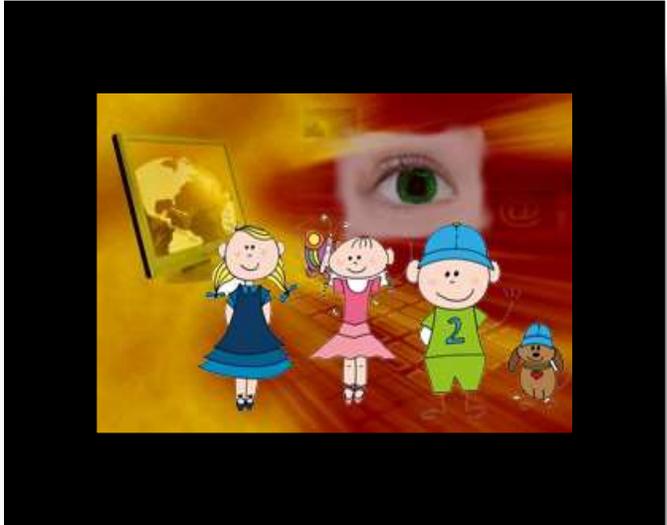


Article 1 "Do you make these 9 mistakes?"

## **Do You Make These 9 Mistakes?**

...with your students/child's technology education?

- Show how to do something rather than allowing her/him to discover
- Do for them rather than let them do it
- Say 'no' too often (or the other enthusiasm-killer, Don't touch!)
- Don't take them seriously
- Take technology too seriously. It's a tool, meant to make life easier. Nothing more.
- Underestimate their abilities
- Over-estimate their abilities
- Give up too quickly
- Think there's only one way to do stuff on the computer



I promise—none of these are necessary to thrive in technology. Children walk in the classroom loving learning. They can't break most computer parts. They *want* to try things out and do it themselves.

Let them. They may discover a Better Mousetrap.

After fifteen years, I still learn from my students. Children are serious about having fun. It's one of their jobs. Technology is how they do this. Feel free to join them. You'll be surprised how much they know.

But, sometimes, they need help. Offer it with a guiding hand.



## **Take Tech into the Classroom**

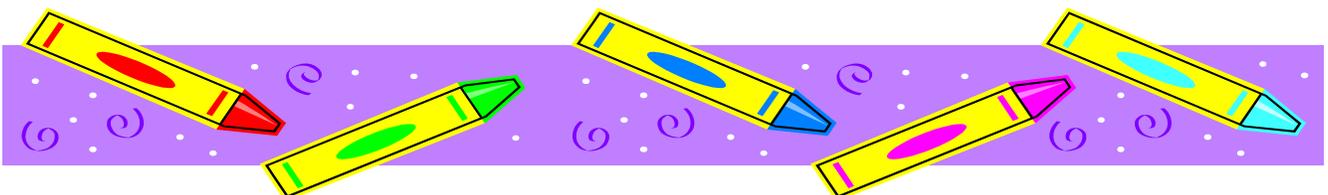
When the classroom teachers feels students are settled into the class routine enough to get started on the class pod of computers, make time to join them for center time and transfer tech class knowledge to the class.

### **Before going:**

- Make sure the class computers work
  - *CPU*
  - *headphones*
- Make sure class computers have all links required for class work. What are the teacher's favorites?
  - *The school website*
  - *Tech lab class internet start page*
  - *Typing practice program*
  - *Starfall*
  - *A math program*
- Make sure they are set up the same as the tech lab (or know where the differences are so you can explain to students)

### **During your visit, go over these with students:**

- Same rules that apply in the tech class apply in the classroom (add your rules)
  - *No food or drink by computers*
  - *No fooling around*
  - *No grabbing neighbor's equipment*
  - *No internet except on approved sites*
  - *Try to solve problems before asking for help (especially important because you as tech teacher won't be there to help)*
  - *Read the screen before asking for help*
  - *Leave the station the way you found it*
  - *Print only with permission*
- Practice good habits every time you sit at computer
- Take questions



## Lesson #6 Tools and Toolbars

Vocabulary	Problem solving	Skills
<ul style="list-style-type: none"> <li>Alt</li> <li>Backspace</li> <li>Ctrl</li> <li>Double-click</li> <li>Enter</li> <li>Icon</li> <li>Log-on</li> <li>Palette</li> <li>Port</li> <li>Shortkeys</li> <li>Spacebar</li> <li>Toolbars</li> <li>Tools</li> </ul>	<ul style="list-style-type: none"> <li>My mouse doesn't work (wake it)</li> <li>My volume doesn't work (are headphones plugged in?)</li> <li>Double-click doesn't work (enter)</li> <li>Students turn monitors off because they can't close programs? Have them leave monitors on at class end.</li> <li>Trouble remembering where tools are? Use shortkeys.</li> <li>I can't close the program (Alt+F4)</li> <li>How often do I save (early and often)</li> <li>My drag-and-drop doesn't work (use left mouse button, not right)</li> </ul>	<p><b>New</b></p> <p><b>Scaffolded</b></p> <p>Tools/toolbars</p> <p>Hardware problems</p> <p>Important keys</p> <p>Shortkeys</p> <p>Keyboarding</p> <p>Symbols</p>
<p><b>Academic Applications</b></p> <p>Math, tech, relationships, compare-contrast</p>	<p><b>Materials Required</b></p> <p>Internet, drawing program, keyboard program, student workbooks (if using)</p>	<p><b>Standards</b></p> <p>CCSS.St. for Math.Pr #2</p> <p>NETS: 3a, 6a</p>

### Essential Question

*How do tools and toolbars help me use technology?*

### Big Idea

*Use symbols to share ideas faster and more efficiently*

### Teacher Preparation

- Talk with grade-level team to tie into symbols.
- Know which tasks weren't completed last week and whether they are necessary to move forward.
- Integrate domain-specific tech vocabulary into lesson.
- Know whether you need extra time to complete this lesson with your student group.

### Assessment Strategies

- Anecdotal observation
- Completed warm-up and exit ticket
- Joined class conversations
- [tried to] solve own problems
- Made decisions that followed class rules
- Left room as s/he found it
- Higher order thinking: analysis, evaluation, synthesis
- Habits of mind observed

## Steps

**Time required:** *45 minutes in one sitting or spread throughout the week with 20 minutes set aside for Symbols lesson*

**Class warm-up:** *Keyboard homerow with [Popcorn Typer](http://bit.ly/1da4z5G) (<http://bit.ly/1da4z5G>), [Dance Mat Typing](http://www.bbc.co.uk/guides/z3c6tfr) (<http://www.bbc.co.uk/guides/z3c6tfr>), or another tool that teaches one row. Observe student posture, hand position.*

- \_\_\_\_\_ Review important keys (poster in Appendix) students should know by year-end.
- \_\_\_\_\_ Review parts of the digital devices used in your class—CPU, monitor, keyboard, mouse, headphones, volume, printer, power buttons, USB ports, peripherals. Show how they connect to the device. Discuss troubleshooting hardware problems:



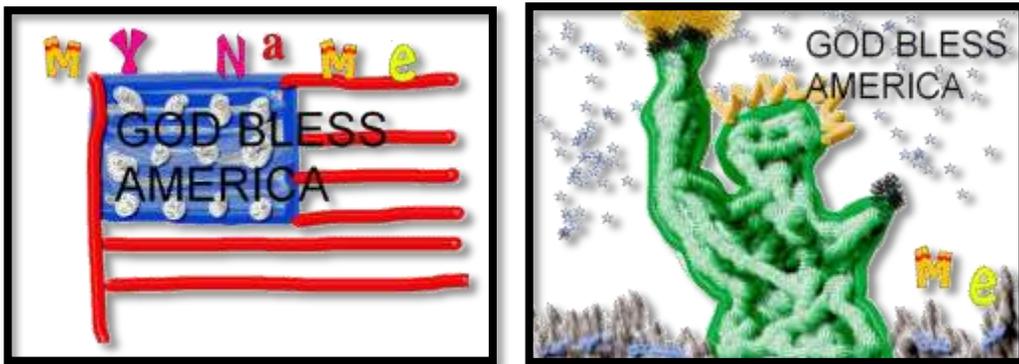
- *If volume doesn't work, check headphones and volume control.*
- *If mouse doesn't work, is it lit up (which means mouse works)?*
- *If keyboard doesn't work, does NumLock work (which means keyboard works)?*
- *If headphones don't work, are they plugged in? In correct CPU?*
- *If monitor doesn't work, is it on? Is mouse awake?*
- *If computer doesn't work, is it on? Is it hibernating?*

\_\_\_\_\_ Review shortcuts students are familiar with:

- *Ctrl+P*
- *Ctrl+S*
- *Alt+F4*
- *Ctrl+V*
- *Ctrl+C*
- *Alt+Tab*

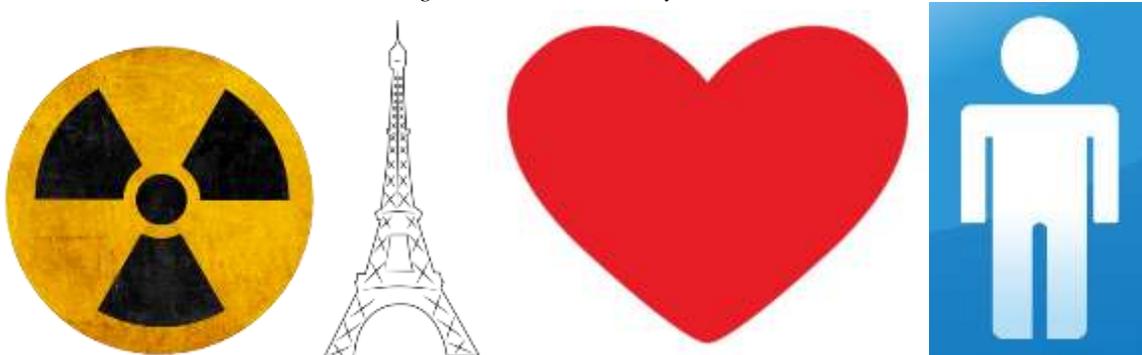
\_\_\_\_\_ Remind students of the pictures they drew in 1<sup>st</sup> grade (if they used the SL tech curriculum) to symbolize their homeland (for example, *Figures 43a-b* symbolize America).

*Figure 21a-b: Pictures as symbols*



\_\_\_\_\_ What do the images in *Figures 44a-d* symbolize (or pick symbols relevant to your inquiry)?

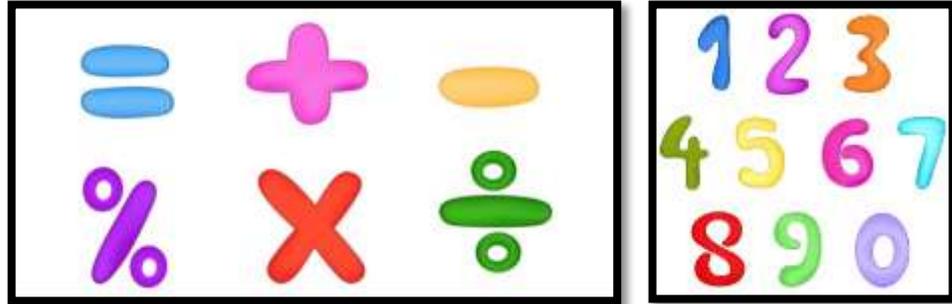
*Figure 22a-d: Common symbols*



\_\_\_\_\_ Discuss the idea a picture is worth a thousand words. What does that mean? Is a picture a symbol of words and thoughts?

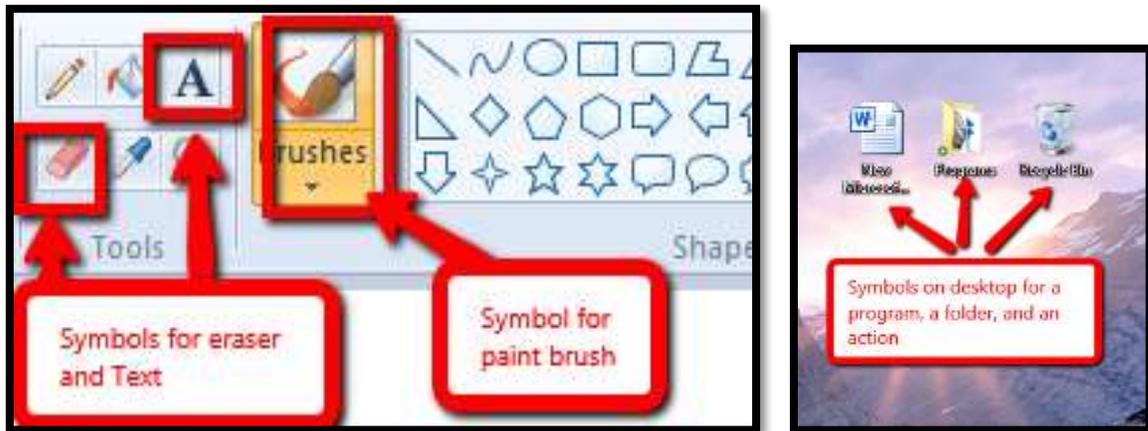
\_\_\_\_\_ Discuss math signs (Figure 45a) and numbers (Figure 45b). How are these symbols? Why are 'numbers' symbols?

Figure 23a-b: Mathematical symbols



\_\_\_\_\_ What are tools? Toolbars? How do they symbolize an action (Figures 46a-b)?

Figure 24a—Toolbar symbols; 46b—desktop icon symbols



\_\_\_\_\_ Open drawing program (KidPix, TuxPaint, ABCYa, other) in the digital device you use. Allow students to explore the tools and toolbars that are available.

\_\_\_\_\_ If you use multiple digital devices in your classroom (say, Chromebooks and iPads), compare toolbars and tools in both. Discuss differences and reasons.

\_\_\_\_\_ Draw a symbol that visually represents an idea, words, or something else.

**Class exit ticket:** Create a poll with a word that can be interpreted many ways. Ask students to vote on what they think the meaning is. See article at the end of Lesson on *The Power of Symbols—What does 'Turkey' mean?*



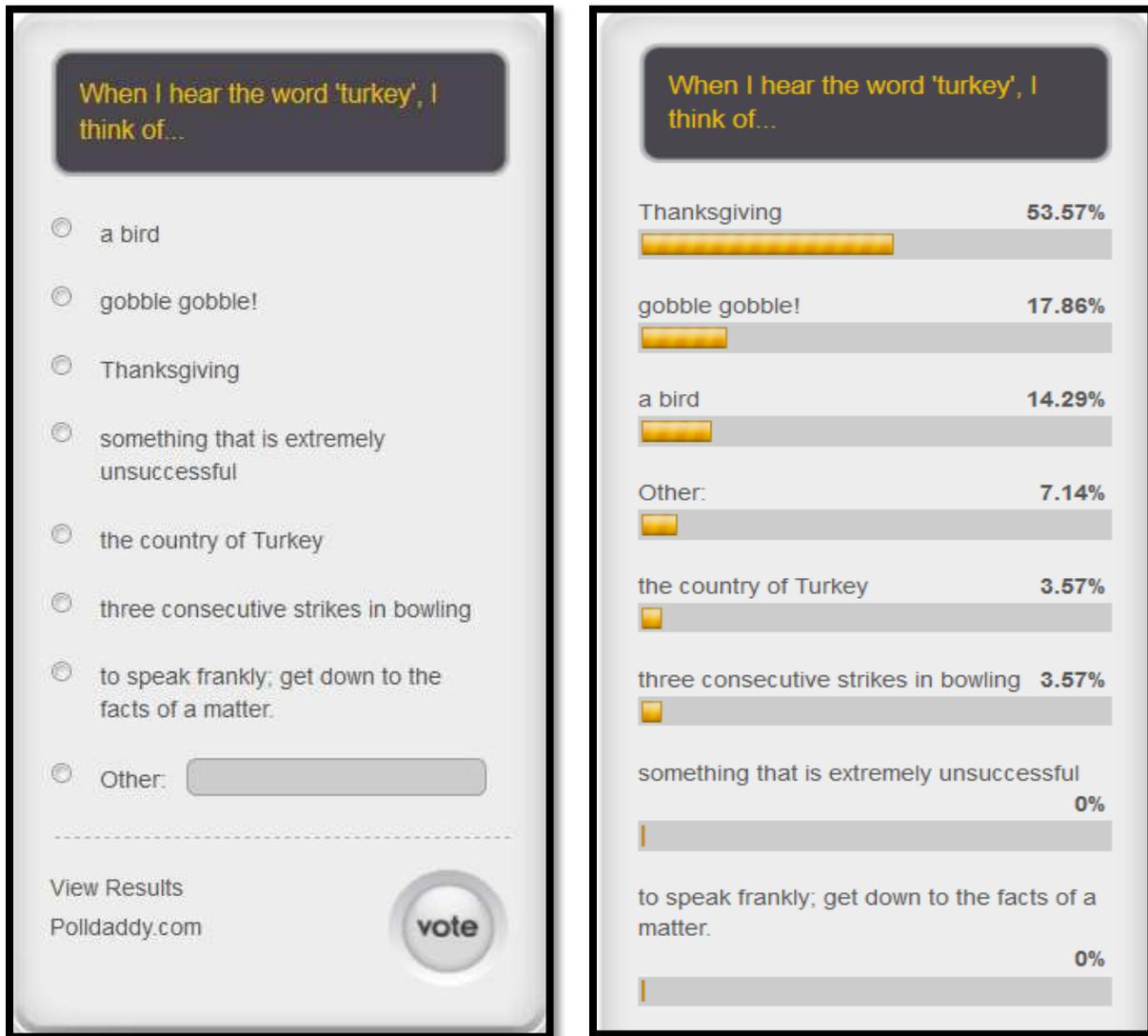
### Differentiation

- Replace this lesson with 2<sup>nd</sup> Grade lesson #2 How to Animoto in [curriculum extendors](http://www.structuredlearning.net/book/k-6-curriculum-extender/) (<http://www.structuredlearning.net/book/k-6-curriculum-extender/>).
- Replace with 2<sup>nd</sup> Grade Lesson #3 Why is Digital Privacy Important? in [curriculum extendors](http://www.structuredlearning.net/book/k-6-curriculum-extender/) (<http://www.structuredlearning.net/book/k-6-curriculum-extender/>).

## The Power of Symbols—What Does 'Turkey' Mean?

As a summation to your discussion with students on symbols, idiomatic expressions, geography, farms, or another topic, post this on your class screen. The poll includes lots of definitions for the word 'turkey'—from objective to idiomatic. Have each student come up some time during the day (or class) and make pick all those they are familiar with.

Figure 25a—Symbols poll; 47b—result of poll



## Lesson #22 My Body

Vocabulary	Problem solving	Skills
<ul style="list-style-type: none"> <li>Align</li> <li>Default</li> <li>Dialogue box</li> <li>Export</li> <li>Form</li> <li>Handles</li> <li>Resize</li> <li>Server</li> <li>Template</li> <li>Text box</li> </ul>	<ul style="list-style-type: none"> <li>Program disappeared (check taskbar)</li> <li>Text box is too big (resize)</li> <li>Didn't print (select correct printer?)</li> <li>Drawing program won't save (take screenshot)</li> <li>Text is too big (reduce font size)</li> <li>I can't find template (try server)</li> <li>I can't find server (follow directions)</li> <li>My text boxes overlap (resize)</li> <li>Where's the camera roll?</li> </ul>	<p style="text-align: center;"><b><u>New</u></b></p> <p style="text-align: center;">Camera roll</p> <p style="text-align: center;"><b><u>Scaffolded</u></b></p> <p style="text-align: center;">Digital citizenship Using templates Digital tool mash-up Keyboarding Annotate workbooks (if using these)</p>
<p><b><u>Academic Applications</u></b> Health, human body, other inquiry requiring labels</p>	<p style="text-align: center;"><b><u>Materials Required</u></b></p> <p style="text-align: center;">human body template, keyboarding program, human body websites, student workbooks (if using)</p>	<p style="text-align: center;"><b><u>Standards</u></b></p> <p style="text-align: center;">CCSS.ELA-Literacy.RI.2.7 NETS: 4a, 6a</p>

### Essential Question

*How can a form I fill out help me remember information?*

### Big Idea

*Typing into a form helps me to remember what I'm studying*

### Teacher Preparation

- Have classroom digital tools ready to use.
- Talk with grade level team so you use the same terminology they do (i.e., is it 'jawbone' or 'mandible'?).
- Place human body template where students can access it.
- Have list of human body websites on internet start page.
- Decide whether this is practice or assessment.
- Integrate domain-specific tech vocabulary into lesson.
- Know which tasks weren't completed last week and whether they are necessary to move forward.
- Know whether you need extra time to complete this lesson with your student group.

### Assessment Strategies

- Followed directions
- Completed project
- Used good keyboarding habits
- Completed warm-up
- Able to annotate workbook (if using workbooks)
- Worked well with a partner
- Joined class conversations
- [tried to] solve own problems
- Made decisions that followed class rules
- Left room as s/he found it
- Higher order thinking: analysis, evaluation, synthesis
- Habits of mind observed

## Steps

**Time required:**      ***45 minutes in one sitting or spread throughout the week with 20 minutes set aside to label and format human body template***

**Class warm-up:**      ***Keyboard all keys on class typing program.***

\_\_\_\_\_ For this lesson, students will label a digital document with its parts. In past lessons, we used the world (continents and oceans). In this lesson, we'll use the human body as an example. You can label a life cycle, parts of a story, or anything else being studied in the classroom.

\_\_\_\_\_ Introduce the unit you will be supporting. For the human body, start with [this BrainPop](#) video and answer questions at the end as a group (<http://bit.ly/1Idy4hX>). If you don't have a subscription to BrainPop, try one of these other [human body websites](#) (<http://bit.ly/1N2Bp4o>).



\_\_\_\_\_ This lesson provides three approaches to supporting inquiry using labels, templates, and fill-in-the-blank worksheets:

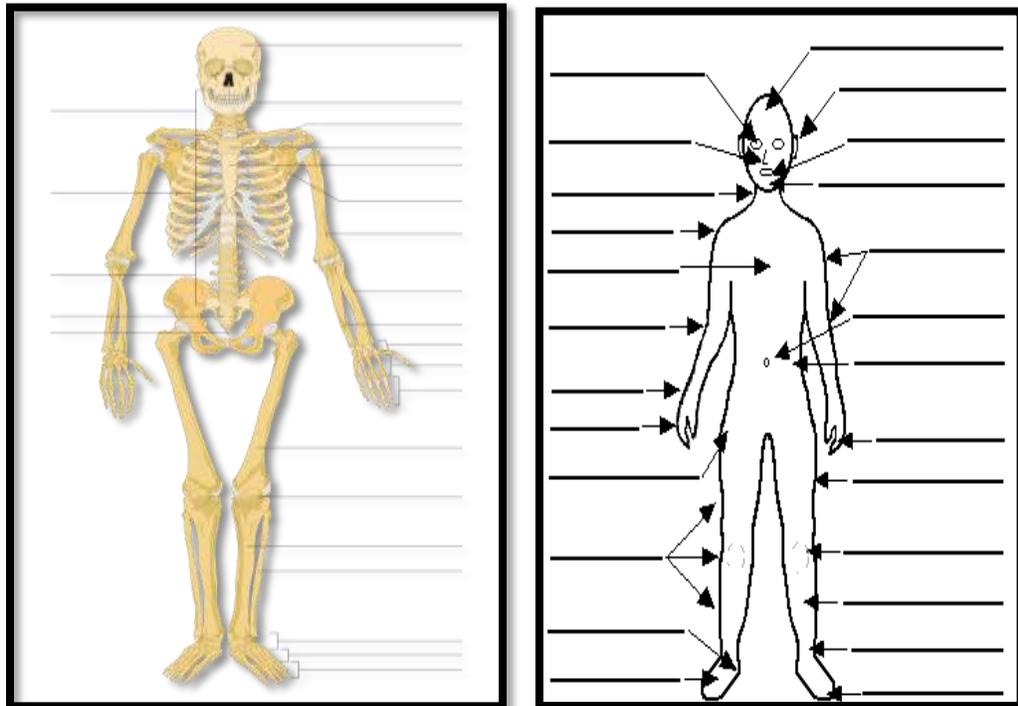
- *Fill-in-the-blank template*
- *Label student picture*
- *Label an avatar as though it was human*

### Fill-in-the-blank Template

\_\_\_\_\_ Providing a digital fill-in-the-blanks worksheet helps students remember information (see *Assessment 11*):

- *they type it*
- *they read what they type*

Figure 26a-b: Fill in the blank templates of human body



\_\_\_\_\_ If you have desktop computers, you might use KidPix, Paint, or Google Draw. You can even use a word processing program like Google Docs or MS Word.

\_\_\_\_\_ If you're a Chromebook school, try these:

- *ABCYa Paint* - [http://www.abcya.com/abcya\\_paint.htm](http://www.abcya.com/abcya_paint.htm)
- *SumoPaint* - <http://www.sumopaint.com/home/>

\_\_\_\_\_ If you're an iPad school, try these:

- [Screenchomp](http://apple.co/1kX7eAH) - <http://apple.co/1kX7eAH>
- [Drawp](http://www.drawpforschool.com/) – <http://www.drawpforschool.com/>

\_\_\_\_\_ If using student workbooks, students can annotate the blank rubric in their workbook (*Assessment 11*) using a tool like iAnnotate or Adobe.

\_\_\_\_\_ For most digital devices, you can supply the template as a PDF to students and they can fill in the blanks using the annotation tool supplied with the digital device.

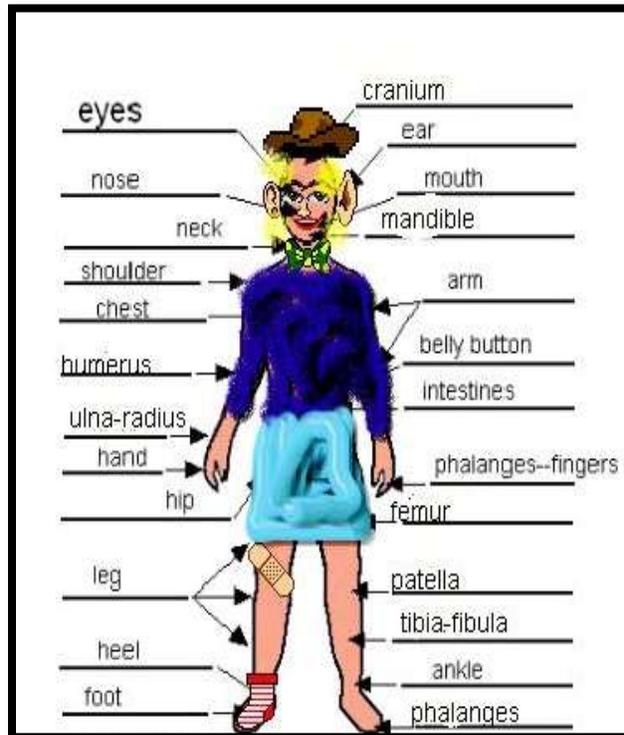


\_\_\_\_\_ Demonstrate how to complete worksheet:

- *Open drawing program that allows students to write on an imported image.*
- *Demonstrate how to find template on server and bring it into program (i.e., on [EnchantedLearning.com](http://bit.ly/1DjLNow) – <http://bit.ly/1DjLNow>).*
- *Fill in blanks with student collaboration on class screen. Use body part words from class. If they say ‘jaw’ in class, don’t put ‘mandible’, and vice versa.*
- *Use default font. Show students how to resize and move text box to align on worksheet.*
- *Decorate with paint bucket, paint brush, and stamps (skills familiar to students).*

\_\_\_\_\_ Now students complete theirs. Display blank sample (*Figures 94a-b*) or completed sample (*Figure 95*) on class screen. Let students know you expect them to come up with as many parts as possible on their own.

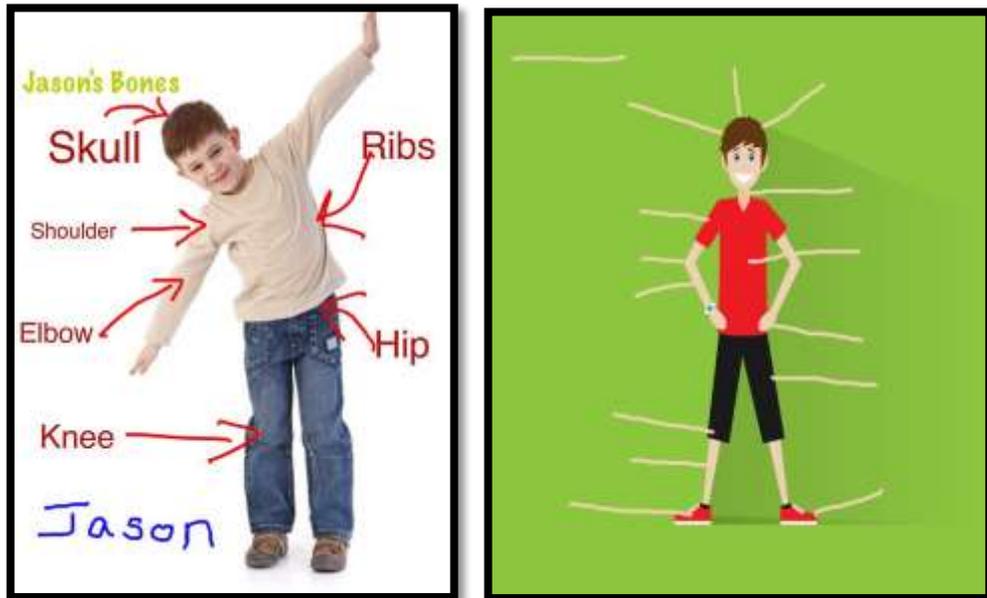
Figure 27—Completed human body template



\_\_\_\_\_ Those who finish early can format the picture with stickers, stamps, or other widgets are available on the digital program you select (*Figure 95*).

## Label Student Picture

Figure 28a-b—Label student picture



\_\_\_\_\_ Have students help each other take their pictures with the iPad camera. Then, use an iPad app like [Doodle Buddy](http://apple.co/1pAVkga) (<http://apple.co/1pAVkga>) to label parts using a brush and/or text tools. *Figures 96a-b* are examples.

\_\_\_\_\_ You can also open the student picture in Google Draw and annotate via PicMonkey (*Figure 97*):

Figure 29—Mashup of Google Draw and PicMonkey



\_\_\_\_\_ If using student workbooks, students open the PDF on their digital device and fill in the blanks with the device's annotation tool (like iAnnotate or Adobe).

\_\_\_\_\_ For most digital devices, you can supply the template as a PDF and students can fill in the blanks using the digital device's annotation tool.

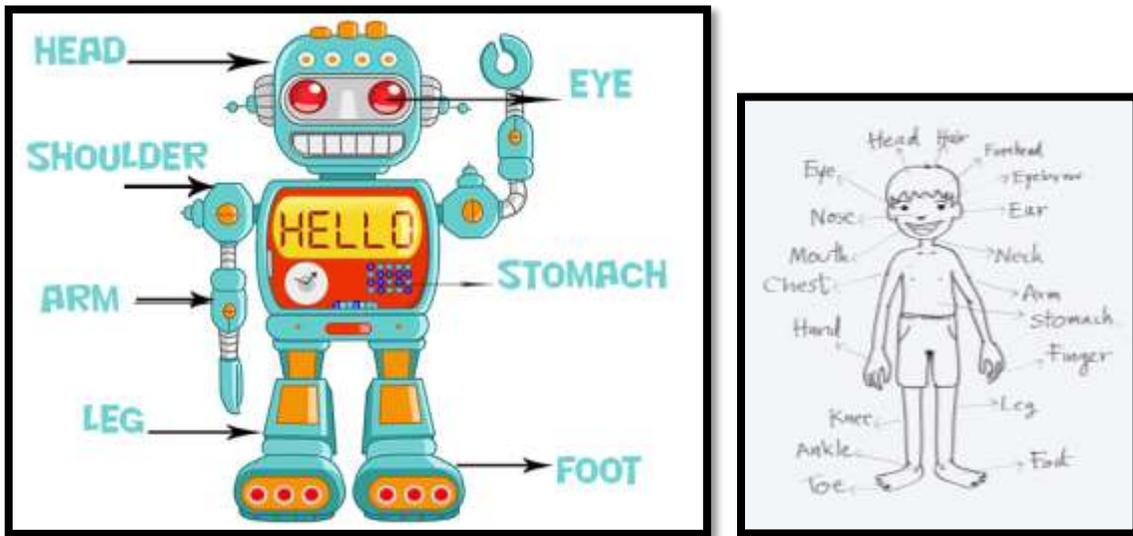


## Label an Avatar as Though It is Human

\_\_\_\_\_ This is a great approach to circle back on digital citizenship and the importance of privacy on the internet. Why are avatars a good personal representation rather than a photograph?

\_\_\_\_\_ Students can either draw an avatar or select one they've used before. Load the avatar onto the computer, Chromebook, or iPad. *Figures 98a-b* are examples:

*Figure 30a-b—Label avatar bodies*



\_\_\_\_\_ If they can save the drawing as a PDF, use the digital device's annotation tool to fill in the body parts.

\_\_\_\_\_ If using student workbooks, students open the workbook PDF on their digital device and fill in the blanks with the device's annotation tool (like iAnnotate or Adobe).



\_\_\_\_\_ When done, export/save/publish/share without assistance; back-up to flash drive if available. Print if desired.

\_\_\_\_\_ Done? Practice keyboarding on installed software or online website.

\_\_\_\_\_ Continually throughout class, check for understanding.

**Class exit ticket:**     *None*

### Differentiation

- *Instead of a template, use the student's picture taken with an iPad.*
- *If desired, adapt this to any subject that requires labeling.*
- *If this is NOT a formative/summative assessment, students can work in pairs.*
- *Done? Visit [Human Body](http://bit.ly/1N2Bp4o) websites (<http://bit.ly/1N2Bp4o>)*
- *If this lesson doesn't work for students, use one from [How to Jumpstart the Inquiry-based Classroom](#). It has 5 projects aligned with curriculum.*

*Assessment 4—Parts of human body template*



# **CLASSROOM POSTERS**

1. Backspace-Delete
2. Digital neighborhood
3. Digital online image law (reworded)
4. Here's what we've done
5. How to solve a problem
6. I can't find my file
7. Important keys
8. Keyboarding Hints
9. Keyboarding Stages
10. Landscape
11. Netiquette rules
12. Portrait
13. Save and save-as
14. Save early, save often
15. Select-Do
16. Steps for internet research
17. Undo is your friend
18. Use keyboard shortcuts
19. Want to use this image?
20. What's a Mulligan
21. Why learn to keyboard





<b>Which book?</b>	<b>Price</b>
<i>K-8 Tech Textbook (each grade level—print, digital, or both)</i>	\$32.99/25.99//53.08 + p&h
<i>K-8 Student tech workbooks (with video, teacher manual)</i>	\$199 per grade level
<i>35 More Projects for K-6 (aligned w curriculum—digital only)</i>	\$31.99/25.99/52.18 + p&h
<i>55 Tech Projects—Volume I, II, or both (digital only)</i>	\$18.99/\$32.49 + p&h
<i>K-8 Keyboard Curriculum (print, digital, or both)</i>	\$25.99-\$64
<i>K-8 Student keyboarding wkbks (with video, teacher manual)</i>	\$199 per grade level
<i>K-8 Digital Citizenship Curriculum</i>	\$29.95/25.99/50.38 + p&h
<i>K-8 Common Core Lessons</i>	FREE-\$48.55 + p&h
<i>Pedagogic Articles</i>	\$6.99 (digital only)
<i>K-8 Tech Scope and Sequences (Word doc)</i>	\$9.99 each (digital only)
<i>Posters for the Tech Lab</i>	\$2.99 each (digital only)
<i>16 Holiday Projects</i>	\$4.99 (digital only)
<i>98 Tech Tips From Classroom</i>	\$9.99 (digital only)
<i>Classes (certificate and college credit)</i>	\$260-\$450
<i>Project-based learning (lesson plans)</i>	\$1.99 each on varied topics
<i>New Teacher Survival Kit (K-5)</i>	\$360 and up (+ p&h)
<i>New Teacher Survival Kit (K-6)</i>	\$380 and up (+ p&h)
<i>New Teacher Survival Kit (6-8)</i>	\$330 and up (+ p&h)
<i>Homeschool Tech Survival Kit</i>	Starts at \$99.00
<i>Bundles of lesson plans</i>	\$7.99 and up
<i>Mentoring (1 hr. at a time)</i>	\$50/hour and up
<i>Year-long tech curriculum help (via wiki)</i>	\$145
<i>Consulting/seminars/webinars</i>	Call or email for prices
<b>Total</b>	

**Fill out this form (prices subject to change).**

**Email [Zeke.rowe@structuredlearning.net](mailto:Zeke.rowe@structuredlearning.net).**

**Use PayPal, Amazon, TPT, pre-approved district PO**

**Questions? Contact Zeke Rowe**

