Technology Curriculum

Student Workbooks

High School
Book 1

by Ask a Tech Teacher

High School

Technology Curriculum Student Workbook

Book 1

Grades 9-12

By Ask a Tech Teacher©

2019

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

Structured Learning LLC©. All Rights Reserved

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

structuredlearning.net

ISBN 978-1-942101-37-6

Printed in the United States of America

Introduction

The educational paradigm has changed. Technology, once optional, is now granular to preparation for college and career. Education standards expect you (as a student) to:

Figure 1—Tomorrow's Student

evaluate print and digital media

- gather information from print/digital sources
- evaluate information presented in diverse formats
- interpret information presented visually, orally, or quantitatively [such as interactive Web pages]
- make strategic use of digital media
- Use print/digital glossaries/dictionaries
- use information from images and words in print/digital text
- communicate with a variety of media
- use text features and search tools (e.g., keywords, sidebars, hyperlinks) to locate information

But how do you learn what you need to achieve these goals?

This three-volume **High School Technology Curriculum** is a great start. It provides critical knowledge and skills that make a difference in learning and life. Lessons are self-paced, platform-agnostic, aligned with core subjects, and themed to topics important to high school students. They are project-based with wideranging opportunities to show your knowledge in the manner that best fits your communication style.

Each of the three volumes is stand-alone with a particular focus:

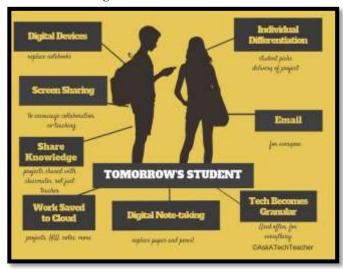


Figure 2—Tomorrow's Classroom



Book 1: (this book) Reviews the tech skills required for college and career.

You review comprehensive tech skills to prepare for college or career. Depending on how well-versed you are in technology, you can move faster or slower through lessons, but with the confidence that you are learning critical skills.

Book 2: Applies learned skills to popular tech projects.

This is a perfect choice if you have a solid background in tech skills and are interested in using it in projects like coding, robotics, and writing ebooks, those that apply to classes and interests. The overarching goal of Book 2 and 3 is to teach you to be a problem solver and independent thinker prepared for whatever you face in life.

Book 3: Applies learned skills to more advanced projects.

This is a perfect choice if you have a solid background in applying tech skills to projects and are looking for advanced opportunities in Word certification, SketchUp, Engineering, Alice, and other tech-intensive topics. The overarching goal of Book 2 and 3 is to teach you to be a problem solver and independent thinker so you are prepared for whatever your future holds.

Your teacher has selected the one that is suited to your needs at this point in your education.

Programs Used

Webtools and programs required in these lessons vary by skill taught but we try to use what you normally would in your classes and/or what is freely available on the Internet.

BE AWARE: Links die. If you find one that no longer works, your teacher can contact us. We may have a workaround. If there is no link, this means it was already provided earlier in the volume.

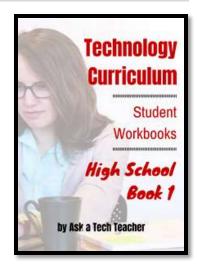
What's in this Workbook?

Lessons in these three volumes (this is the first of the three—Book 2 and 3 are sold separately) may focus on coding, debate, engineering, financial literacy, Genius Hour, Google Earth, image editing, infographics, Internet searches, math, presentations, Photoshop, robotics, SketchUp, spreadsheets, visual learning, webtools, word processing, writing ebooks, and more. All books include three foundational topics considered critical to technology success:

- keyboarding
- digital citizenship
- problem-solving

Each weekly lesson includes:

- assessment strategies
- class warm-up and exit ticket
- Common Core and ISTE alignment

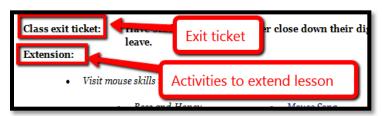


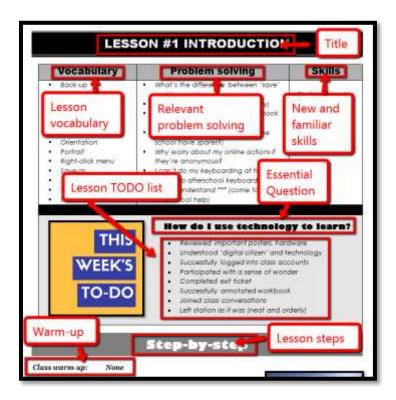
- differentiation strategies
- educational applications
- essential question and big idea

- examples, rubrics, images, printables
- problem solving for the project
- steps to accomplish goals
- supporting links
- time required
- vocabulary used

All except the 'steps to accomplish goals' can quickly be viewed on the first and last page of each lesson, providing a snapshot of what will be happening without digging through lots of pages. Figures 3a-b are screenshots showing where these are in a sample lesson (zoom in if needed):

Figure 3a-b—Parts of each lesson





How to Use This Book

Use this student workbook by itself to guide learning or in conjunction with teacher direction. We don't explain exactly how to do skills. Those are learned in earlier tech classes, If you don't know how to perform a skill, ask for help. If you do, transfer that knowledge to this class.

Here are hints on how this workbook:

- This workbook is part of the High School technology curriculum your school selected to guide you through technology skills. Each lesson takes two-three sessions of 30-45 minutes.
- When you see a section for 'Notes' at the end of some lessons, add your thoughts, ideas, comments, and suggestions.
- A lesson requires one week—two-to-three classes.
- Many lessons start with a warm-up and end with an Exit Ticket.
- Many lessons include Extensions, in case you get done early.
- Zoom in or out of workbook pages to get exactly the size that works for your needs.
- If you want to complete a lesson using a different tool, suggest it. Your teacher will probably be happy to accommodate you if your method answers the Essential Questions.
- You can work at your own pace, try skills, and ask for help when you need it. There's a lot of detail in the book to explain how to complete projects and lessons.
- You can use this workbook on PCs, Macs, Chromebooks, or iPads. You can use a desktop, laptop, or a netbook.
- Use lesson vocabulary in class and out. You gain authentic understanding by doing so.
- If a link doesn't work, copy-paste it into your Internet browser. A note: Links die. If a link doesn't work even after copy-pasting, as your teacher for another.
- If there is no link, this means it was already provided.
- This icon means there's a video to watch. **Be aware: Video links change**. Your teacher may replace the link with another.
- This icon means you'll work with a partner. Collaboration and working in groups is an important part of learning.
- This icon means there is an activity that requires you to write something in the work-book. Use your favorite annotation tool to do that. If you turn this workbook in at the end of class, erase your annotations so it is clean for the next student.
- Focus on problems listed in each lesson, but embrace all that come your way. Be a risktaker.
- Your teacher will assess your work based on the weekly 'To Do' list. Be sure you've completed items and submitted in the manner required.
- Check off completed items on the line preceding the step so you know what's finished. Use Adobe, Notable, Kami, Lumin, or any annotation tool that works on your device.
- o Remember: It takes five times with a skill to get it—

o First: you hope it'll go away

Second: you try it

Third: you remember it

o Fourth: you use it outside of class

Fifth: you teach a friend

Figure 4—It takes 5 times



- When you finish each lesson, transfer knowledge to projects at school, home, the library wherever you use digital devices.
- At the end of each session, leave your station as you found it—organized and neat.
- Some lessons offer several activities that meet goals outlined in the Essential Questions. Pick what works for you.

 Figure 5—Habits of Mind
- Lessons expect you to develop 'habits of mind'. In a sentence: Habits of Mind ask you to engage in learning, not simply memorize.
- Back up your work. This can be to a flash drive, by emailing the document to themselves, or saving to a secondary location.
- Expect to direct your own learning.
- Learning is accomplished by success and failure. Be a risk taker. Don't expect the teacher to rush to solve your problems. Think how it was done in the past. Focus on problem-solving listed in the lesson but embrace all. This trains critical thinking and trouble-shooting when a teacher isn't there to help.

Persist Manage inderstanding Think Think about thinking and empathy flexibly Think about thinking and empathy flexibly Think are securely fearning.

15.
Think interdependently flexible to the secure of thinking and empathy flexible to the secure of thinking and empathy flexible to the secure of thinking and empathy flexible to the secure of the secur

Copyrights

You have a single-user license for this book. That means you may reproduce copies of material in this text for classroom use only. Reproduction of the entire book (or an entire lesson) is strictly prohibited. No part of this publication may be transmitted, stored on an accessible server, or recorded in any form without written permission from the publisher.

About the Authors

Ask a Tech Teacher is a group of technology teachers who run an award-winning resource <u>blog</u>. 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.

*Throughout this text, we refer to Common Core State Standards and <u>a license granted to</u> "...copy, publish, distribute, and display the Common Core State Standards for purposes that support the CCSS Initiative. Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

Table of Contents

How to use this book Table of Images Table of Assessments

Lessons

- 1. Introduction
- 2. Digital Tools in the Classroom
- 3. Digital Citizenship
- 4. Keyboarding
- 5. Problem Solving
- 6. Screenshots, Screencasts, Videos
- 7. Word Processing Summative
- 8. Writing with Comics, Twitter, More
- 9. Desktop Publishing I
- 10. Desktop Publishing II
- 11. Spreadsheets I
- 12. Spreadsheets II
- 13. Financial Literacy
- 14. Internet Search and Research
- 15. Presentation Boards
- 16. Slideshow Summative

- 17. Slideshows: Presentations
- 18. Infographics
- 19. Google Earth Lit Trip
- 20. Online Image Legalities
- 21. Image Editing I
- 22. Image Editing II
- 23. Webtools
- 24. Webtools: Presentations
- 25. Genius Hour I
- 26. Genius Hour II
- 27. Coding I
- 28. Coding II
- 29. Write an Ebook
- 30. Publish an Ebook
- 31. The Debate: Research
- 32. The Debate: Presentation

Arranged by theme

Integrated into all

#2	Digital Tools in the Classroom
#3	Digital Citizenship
#4	Keyboarding
#5	Problem Solving

Productivity

<u>v 11 y</u>	
#4	Keyboarding
#6	Screencasts, Screenshots, Videos
#7	Word Processing Summative
#8	Writing with Comics, Twitter, More
#9-10	Desktop Publishing
#11-12	Spreadsheets
#15	Presentation Boards

High School Technology Curriculum Book 1: Student Workbook

#18	Infographics
#19	Google Earth Lit Trip
#21-22	Image Editing
#23	Webtools
#29	Write an Ebook
#31	The Debate: Research

Speaking and Listening

#6	Screencasts, Screencasts, Videos
#15	Presentation Boards
#17	Slideshows: Presentations
#24	Webtools: Presentations
#25-26	Genius Hour
#32	The Debate: Presentation

<u>Math</u>

#11-12	Spreadsheets
#13	Financial Literacy
#27-28	Coding

W	rit	<u>in</u>	g

#8	Writing with Comics, Twitter, More
#18	Infographics
#19	Google Earth Lit Trip
#29	Write an Ebook
#30	Publish an Ebook

Search and Research	
# 3	Digital Citizenship
#14	Internet Search and Research
#20	Online Image Legalities
#23	Webtools
#25-26	Genius Hour
#31	The Debate: Research

Table of Images

Figure 1—Tomorrow's Student	4
Figure 2—Tomorrow's Classroom	4
Figure 3a-b—Parts of each lesson	6
Figure 4—It takes 5 times	7
Figure 5—Habits of Mind	8
Figure 6—Class rules	17
Figure 7—Keyboard posture	18
Figure 8a-d—Digital devices and their parts	21
Figure 9a—iAnnotate; 9b—Notability; 9c—Adobe Acrobat	22
Figure 10a-c—Avatars	22
Figure 11a-c—Backchannel devices	
Figure 12a-c—Student blogs	24
Figure 13a—Blogging rules; 13b—blogging rubric	
Figure 14a—Class calendar in Google; 14b—Padlet; 14c—DTP	
Figure 15—Class Internet start page	
Figure 16a—Class start page in Symbaloo; 16b—Portaportal; 16c—	
Figure 17a-b—Note-taking tools	27
Figure 18—Collaborative notes in Google Spreadsheets	
Figure 19a—Evernote; 19b—Twitter	
Figure 20a—A wiki; 20b—Google Drive	
Figure 21—Homework dropbox	
Figure 22—Email etiquette	
Figure 23a—Evidence Board; 23b—Badge	
Figure 24—Screenshot quiz	
Figure 25—Student website rubric	
Figure 26a-c—Vocabulary decoding tools	
Figure 27—True test of a man	
Figure 28—Digital law—rephrased	
Figure 29—Netiquette Rules	
Figure 30—Why learn to keyboard?	
Figure 31—Keyboarding posture	
Figure 32—Keyboarding hand position	
Figure 33—Shortkeys	
Figure 34a-e—Project-based learning and keyboarding	
Figure 35a—Shortkeys for iPad; 35b—Chromebook; 35c—PC; 35d—	—Internet Error! Bookmark not
defined.	
Figure 36a-b—Blank keyboard quiz for PCs and Chromebook	
Figure 37—Problem-solving quotes	
Figure 38—How to solve a problem	
Figure 39—Common tech problems	
Figure 40a-b—Problem-solving Board sign-ups	
Figure 41—Sample how-to screenshot	Error! Bookmark not defined.

Figure 42a-b—Screenshots	Frror! Bookmark not defined
Figure 43a—Jing; 43b—Snipping Tool	
Figure 44—Sequencing in a screenshot	
Figure 45—Sample screencast	
Figure 46a-Screencast-o-matic; 46b—ShowMe	
Figure 47a-d—Word processing examples from earlier grades	
Figure 48—Compare/contrast B	
Figure 49—Toolbar, menu bar	
Figure 50—Excel toolbar	
Figure 51a-c—Examples of outlines in word processing programs	
Figure 52a—MS Word; 52b—Google Docs	
Figure 53a-c—Comic samples	
Figure 54—Decoding a comic strip	
Figure 55—Blank comic template	
Figure 56—Twitter novel sample	Error! Bookmark not defined.
Figure 57—Serialized novel by Conrad	Error! Bookmark not defined.
Figure 58a-e—DTP project from earlier grades	Error! Bookmark not defined.
Figure 59—Compare/contrast C	Error! Bookmark not defined.
Figure 60a—Newsletter in Publisher; 60b—in Google Docs	Error! Bookmark not defined.
Figure 61a-b—Newsletter	Error! Bookmark not defined.
Figure 62a-c—Newsletter samples	Error! Bookmark not defined.
Figure 63a-b—Quick newsletter alternatives	Error! Bookmark not defined.
Figure 64a-b—Magazine covers in Canva; 64c—in LucidPress; 64d—MS	Publisher. Error! Bookmark not
defined.	
Figure 65a-b—Magazine table of contents	
Figure 65a-b—Magazine table of contents	Error! Bookmark not defined.
Figure 65a-b—Magazine table of contents	Error! Bookmark not defined. Error! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers	Error! Bookmark not defined. Error! Bookmark not defined. Error! Bookmark not defined. Error! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End	Error! Bookmark not defined. Error! Bookmark not defined. Error! Bookmark not defined. Error! Bookmark not defined. Error! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles	Error! Bookmark not defined. Error! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End	Error! Bookmark not defined. Error! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples Figure 75—Posters in DTP	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples Figure 75—Posters in DTP Figure 76a-d—Online tools to create fliers	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples Figure 75—Posters in DTP Figure 76a-d—Online tools to create fliers Figure 77a-c—Calendar samples	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast. Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End. Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D. Figure 74a-d—DTP flier examples Figure 75—Posters in DTP Figure 76a-d—Online tools to create fliers Figure 77a-c—Calendar samples Figure 78a-b—Formulas in math and science	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples Figure 75—Posters in DTP Figure 76a-d—Online tools to create fliers Figure 77a-c—Calendar samples Figure 78a-b—Formulas in math and science Figure 79a-c—Spreadsheet projects	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples Figure 75—Posters in DTP Figure 76a-d—Online tools to create fliers Figure 77a-c—Calendar samples Figure 78a-b—Formulas in math and science Figure 79a-c—Spreadsheet projects Figure 80—Compare/contrast tools answer key	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents. Figure 66a-c—Magazine internal pages. Figure 67—Magazine timeline. Figure 68a-d—Magazine compare-contrast. Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End. Figure 71a-b—Curating articles. Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D. Figure 74a-d—DTP flier examples. Figure 75—Posters in DTP. Figure 76a-d—Online tools to create fliers. Figure 77a-c—Calendar samples. Figure 78a-b—Formulas in math and science. Figure 79a-c—Spreadsheet projects. Figure 80—Compare/contrast tools answer key. Figure 81a-b—Formula unpacked.	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers. Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years. Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples Figure 75—Posters in DTP Figure 76a-d—Online tools to create fliers Figure 77a-c—Calendar samples Figure 78a-b—Formulas in math and science Figure 80—Compare/contrast tools answer key Figure 81a-b—Formula unpacked Figure 82—Spreadsheet project Figure 83—Automath with spreadsheets	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples Figure 75—Posters in DTP Figure 76a-d—Online tools to create fliers Figure 77a-c—Calendar samples Figure 78a-b—Formulas in math and science Figure 79a-c—Spreadsheet projects Figure 80—Compare/contrast tools answer key Figure 81a-b—Formula unpacked Figure 82—Spreadsheet project Figure 83—Automath with spreadsheets Figure 84—How to print in Excel	Error! Bookmark not definedError! Bookmark not defined.
Figure 65a-b—Magazine table of contents Figure 66a-c—Magazine internal pages Figure 67—Magazine timeline Figure 68a-d—Magazine compare-contrast Figure 69a-b—Magazine graphic organizers. Figure 70a—Magazine primary source; 70b—The End Figure 71a-b—Curating articles Figure 72a-e—DTP project from earlier years. Figure 73—Compare/contrast D Figure 74a-d—DTP flier examples Figure 75—Posters in DTP Figure 76a-d—Online tools to create fliers Figure 77a-c—Calendar samples Figure 78a-b—Formulas in math and science Figure 80—Compare/contrast tools answer key Figure 81a-b—Formula unpacked Figure 82—Spreadsheet project Figure 83—Automath with spreadsheets	Error! Bookmark not definedError! Bookmark not defined.

Figure 97g of Table va Cropb	
Figure 87a-c: Table vs. GraphFigure 88a-b: Graph options in Excel and Spreadsheet	
Figure 89a-b: Two types of graphsFigure 90—What are the parts of a website?	
Figure 91a-b—Presentation Board sign-ups	
Figure 92—Common problems and solutions	
Figure 93a—Google Form; 93b—answers	
Figure 94a—Padlet virtual wall; 94b—Linoit; 94c—physical	
Figure 95—Sample geek words	
Figure 96—GE Board grading	
Figure 97—Google Earth placemark	
Figure 98a-c—Slideshows from previous years	
Figure 99a—Slideshow in MS Office; 99b—Kizoa; 99c—Adobe Voice	
Figure 100a-c—Slideshow covers in PowerPoint, Adobe Slate, and Haik	
defined.	a Beek 211011 Bookinan noi
Figure 101a-c—Table of Contents	Error! Bookmark not defined.
Figure 102a-b—Introduction	
Figure 103a—Topic and subpoints; 103b-c—graphic organizer	
Figure 104a-b—About the author	
Figure 105—Slideshow rubric	
Figure 106a-c—Graphic organizers from earlier projects	
Figure 107a—Infographic in Easel.ly; 107b-c—Canva	
Figure 108a-b—Sample infographics in Hubspot; 108c—Piktochart	
Figure 109a-c—Previous Google Earth projects	
Figure 110—GE dialogue box	Error! Bookmark not defined.
Figure 111a—Google Earth placemark; 111b—sample GE tour	Error! Bookmark not defined.
Figure 112a—Placemark with image; 112b—with overlay	Error! Bookmark not defined.
Figure 113—Measure distances in GE	Error! Bookmark not defined.
Figure 114—Digital law—rephrased	Error! Bookmark not defined.
Figure 115a-b—Student drawing used without permission	Error! Bookmark not defined.
Figure 116—Copyright protections on browsers	Error! Bookmark not defined.
Figure 117—Two copyrighted images	Error! Bookmark not defined.
Figure 118—Real or a hoax?	Error! Bookmark not defined.
Figure 119a-b: Add or remove pieces from a photo	
Figure 120a-c—Real or hoax pictures?	
Figure 121a—Unfiltered; b—SumoPaint; c—Lunapic; d—PicMonkey; e-	–Big Huge Labs Error!
Bookmark not defined.	
Figure 122—Row graphic for image editing	
Figure 123a-e—Images edited with word processing tool	
Figure 124—Cast shadows	
Figure 125a-b—Before and after PS auto-correct	
Figure 126a-c: 3 ways to crop	
Figure 127a-c—Cropping an image into a new background	
Figure 128a-b—Cloning within a picture	
Figure 129a-b—Cloning between two pictures	
Figure 130—Background layers	Error! Bookmark not defined.

High School Technology Curriculum Book 1: Student Workbook

Figure 131a—Drill through background layers; b—use one layer only Figure 132a-b—Filters	Error! Bookmark not defined.
Figure 134a-c: Changing hue and saturation	Error! Bookmark not defined.
Figure 135a is the original; 135b is desaturated; 135c is painted back to	o original Error! Bookmark not
defined.	
Figure 136a is desaturated; 136b has part painted back to original pict	ture Error! Bookmark not
defined.	
Figure 137a-b—Car color changed with hue-saturation	Error! Bookmark not defined.
Figure 138a—H&S in Pixlr; b—Lunapic; c—PicMonkey; d—SumoPaint	Error! Bookmark not defined.
Figure 139a—Original; 139b—Quadrant colors; 139c—sepia toned	Error! Bookmark not defined.
Figure 140a—Actions in SumoPaint; b—Big Huge Labs; c—PicMonkey; o	d—Lunapic Error! Bookmark
not defined.	
Figure 141—Paint dialogue box	Error! Bookmark not defined.
Figure 142a—Image editing brushes; 142b-c—drawings completed in i	mage editor Error! Bookmark
not defined.	
Figure 143a-c—Cast shadows	Error! Bookmark not defined.
Figure 144a-b—Sample collages	Error! Bookmark not defined.
Figure 145a—Alice; b—QR code; c—Glogster; d—Mindmap	Error! Bookmark not defined.
Figure 146a—Jing; b—Scratch; c—Voki; d—Wolfram	Error! Bookmark not defined.
Figure 147—Find your passion	Error! Bookmark not defined.
Figure 148a-b—What programming feels like vs. what it is	Error! Bookmark not defined.
Figure 149a-e—Coding from previous years	Error! Bookmark not defined.
Figure 150—Write an ebook	Error! Bookmark not defined.

Table of Assessments

Assessment 1—Parts of the computer	35
Assessment 2—Parts of the smartphone	36
Assessment 3—Parts of an iPad	37
Assessment 4—Chromebook parts	38
Assessment 5—Student blogging agreement	39
Assessment 6—Blog grading rubric	Error! Bookmark not defined.
Assessment 7—Website grading rubric	Error! Bookmark not defined.
Assessment 8—Digital portfolio rubric	Error! Bookmark not defined.
Assessment 9—Keyboarding technique quiz	Error! Bookmark not defined.
Assessment 10—Important Keys	Error! Bookmark not defined.
Assessment 11—Blank keyboard quiz	Error! Bookmark not defined.
Assessment 12—Chromebook blank keyboard quiz	Error! Bookmark not defined.
Assessment 13—Keyboarding Challenge	Error! Bookmark not defined.
Assessment 14—Problem-solving authentic data	Error! Bookmark not defined.
Assessment 15—Problem Solving Presentation Assessment	Error! Bookmark not defined.
Assessment 16—Compare-contrast tools	Error! Bookmark not defined.
Assessment 17—Compare-contrast tools	Error! Bookmark not defined.
Assessment 18—Newsletter rubric	Error! Bookmark not defined.
Assessment 19—Magazine rubric	Error! Bookmark not defined.
Assessment 20—Compare-contrast tools	Error! Bookmark not defined.
Assessment 21—Flier grading rubric	Error! Bookmark not defined.
Assessment 22—Calendar grading rubric	Error! Bookmark not defined.
Assessment 23—Compare-contrast tools	Error! Bookmark not defined.
Assessment 24—Spreadsheet summative	Error! Bookmark not defined.
Assessment 25—Summative spreadsheet rubric	Error! Bookmark not defined.
Assessment 26—Problem-solving board grading	Error! Bookmark not defined.
Assessment 27—Speak Like a Geek presentation rubric	Error! Bookmark not defined.
Assessment 28—Presentation vs. word processing	Error! Bookmark not defined.
Assessment 29—Slideshow storyboard	Error! Bookmark not defined.
Assessment 30—Slideshow presentation rubric	Error! Bookmark not defined.
Assessment 31—Slideshow presentation	Error! Bookmark not defined.
Assessment 32—GE Lit Tour rubric	Error! Bookmark not defined.
Assessment 33—Photoshop Tennis	Error! Bookmark not defined.
Assessment 34—Photoshop Tennis	Error! Bookmark not defined.
Assessment 35—Webtool presentation tips	Error! Bookmark not defined.
Assessment 36—Webtool presentation	Error! Bookmark not defined.
Assessment 37—Genius Hour steps	Error! Bookmark not defined.
Assessment 38—Genius Hour rubric	Error! Bookmark not defined.
Assessment 39—Dehate evaluation	Frrort Rookmark not defined

LESSON #1 INTRODUCTION

Vocabulary	Problem solving	Skills
 Backup Digital Digital citizen Flash drive Hardware Landscape Orientation Portrait Right-click menu 	 What's the difference between 'save' and 'save-as' What's a quick way to ** (shortkey) How do I annotate student workbook (addressed in Digital Tools lesson) I don't have a flash drive (does the school have spares?) Why worry about my online actions if they're anonymous? 	Digital citizenship Digital devices Hardware Keyboarding Online grades Problem solving
Save-asSelect-doTechnologyWebtool	 I can't do my keyboarding at home (come to afterschool keyboarding) I don't understand *** (come to afterschool help) 	



How do I use technology to learn?

- Reviewed important posters, hardware
- Understood 'digital citizen' and technology
- Successfully logged into class accounts
- Participated with a sense of wonder
- Completed exit ticket
- Successfully annotated workbook
- Joined class conversations
- Left station as it was (neat and orderly)

Step-by-step

Class warm-up: None

Required skill level: Enthusiasm and passion for technology.

_Tour classroom to familiarize yourself with your learning environment. Your teacher will show you where the tech devices are. Also know where to find class announcements, the Evidence Board and Presentation sign-up sheets (if you're doing these activities).

_What does 'technology' mean at your school? Do you understand the meaning of 'technology in education'? How have you used it?



____Discuss the focus of high school technology: You will use tech to support educational goals. For example:

- How do you decide what program works best for what inquiry?
- How do you learn to use tools you have never seen?
- How do you self-assess knowledge, ensuring you got what you need?

Success in high school technology is predicated on your enthusiasm for learning, transfer of knowledge from earlier learning, and evidence of problem-solving skills. You will often 'pick which program works best' or 'devise a plan to accomplish goals' or 'teach yourself'.

_Share your tech background with classmates, what you know and want to know, difficulties you see taking this class. Discuss your expectations.

_Understand domain-specific technology language pursued two ways:

- You use correct 'geek speak' words during class, as does your teacher. Tech words you don't know are added to a virtual wall or a similar collection spot. These words will be included in Speak Like a Geek (if following this activity).
- Every time you find a word you don't understand, decode it—using the class dictionary tool, friends, or teacher. Don't skip over it.

___Review class syllabus, goals, and rules (zoom in if necessary):



Figure 6—Class rules

_Make suggestions on what else should be on this list with the goal that class be productive, efficient, and fair for all students. The list may include:

- No food or drink around digital devices.
- Respect the work of others and yourself.
- Keep your body to yourself—don't touch neighbor's digital device.
- No excuses; don't blame people or computer.
- Help your neighbor with words, not by doing.
- When collaborating, build on others' ideas as you clearly express your own.
- Try to solve your own problems before asking for help.

_____Add suggestions for a list of guidelines into this PDF as shown in *Figure 6*. Use your annotation tool for this.

_Discuss passwords and privacy. Do not share log-ins with anyone. Record your log-ins in a convenient place where you will be able to find them. More on this later.

_Your teacher will let you know that s/he is open to alternative suggestions on tools to use for a class project. For example, if s/he suggests Wordle, you may prefer Tagxedo. S/he will approve the change if the tool fulfills class guidelines and the lesson Big Idea or Essential Question. Expect to provide **evidence** to build your case, **compare-contrast** your tool to teacher suggestions, and **draw logical conclusions**.

_Review posture at the computer based on *Figure 7*—zoom in if needed:



Figure 7—Keyboard posture

_Posture is different on iPads than laptops, Chromebooks, and desktops. Discuss these differences as a group and add notes to *Figure 7* with your annotation tool.

_Check the posture of your neighbor. Remember to sit this way everywhere you use a computer—home, school, the library, everywhere.

More on this in the lesson on *Keyboarding*.



studeS/he assis to heYou (mor many exper yourYou reque lessoYour grade (if thDisc miss wherDisc	teacher may offer a Keyboarding Club after school two days a week to accommodate this who can't do their homework at home or want practice keyboarding. It may also offer after-school help on Keyboarding Club days for students who need tance with a tech skill or a project involving tech. Volunteer to participate as an assistant, lip classmates. will learn a wide range of web tools e on this in another Lesson) and use in class. Additionally, you will be sted to come up with those that suit particular needs. will try to solve tech problems before esting assistance (more on this in the non <i>Problem Solving</i>). The teacher will show you how to check es online and access the class website ere is one). The posts lesson plans. The posts lesson plans before a project involving tech. Volunteer to participate as an assistant, lip classmates. The posts lesson plans are project involving tech. Volunteer to participate as an assistant, lip classmates. The post learn a wide range of web tools are participated as an assistant, lip classmates. The post learn a wide range of web tools are participated as an assistant, lip classmates. The post learn a wide range of web tools are participated as an assistant, lip classmates. The post learn a wide range of web tools are participated as an assistant, lip classmates. The post learn a wide range of web tools are participated as an assistant, lip classmates. The post learn a wide range of web tools are participated as an assistant, lip classmates. The post learn a wide range of web tools are participated as an assistant, lip classmates. The project last last last last last last last las
Class exit ticket:	Tack a post-it on Problem Solving Board with a tech problem you faced last week. These may be used for the upcoming Problem Solving Board.
Extension:	Volunteer to add homework due date to class online calendar this month.

LESSON #2 DIGITAL TOOLS IN THE CLASSROOM

Vocabulary	Problem solving	Skills
 Vocabulary Annotation Backchannel Benchmark Chrome Cloud Digital citizen Digital portfolio Digital tools Domain-specific Geek Hashtag Linkback PDF Plagiarism Portal 	 I'm too young for Twitter (use class account) Avatar didn't show on my blog page (ask a neighbor how they did it) My work disappeared! (Google Apps automatically saves—pull up revision) Teacher is busy and I need help (ask for peer support) Just give me a handout (Sorry, we learn through experience and collaboration) I can't find Evernote (find the 'elephant' on internet toolbar) I'm not fast enough decoding vocabulary (keep at it—it gets easier) I forgot my Evidence for the Evidence 	Annotating PDFs Avatars Backchannel Blogging Class calendar Decoding vocab Digital note-taking Digital portfolios Email Evidence Board Hardware parts Internet start page PDF annotation
Template	Board (write it down for the next time)	



How do I use technology to learn?

- Understood hardware
- Tried class digital tools—able to log-in
- Completed warm-up and exit ticket
- Successfully annotated workbook
- Joined class conversations
- Left station as it was (neat and orderly)

Step-by-step

Class warm-up: Test digital tool accounts while waiting for class to start.

Check your neighbor's mouse hold (see inset—zoom



Figure 8a-d—Digital devices and their parts









_Discuss how understanding hardware helps to solve tech problems. _The following tools are discussed in this Lesson. Your teacher will pick those used in your classroom and add others you use that aren't mentioned:



- annotation tool
- avatars
- backchannel devices
- blogs
- class calendar
- class Internet start page
- class website
- class webtools
- digital note-taking
- digital portfolios

- dropbox
- email
- Evidence Board
- Google Apps
- journaling
- log-ins
- screenshots and screencasts
- student websites
- student workbooks
- vocabulary decoding tools

Student workbooks

_Your teacher will introduce your **student technology workbook**. It includes:

- assessments
- links to websites you'll use
- links to digital tools used in class
- a place to take notes
- full-color samples of projects
- checklists for activities
- quizzes
- rubrics
- extras to extend learning
- the ability to circle back on concepts already covered or spiral forward to preview upcoming material

Technology
Curriculum
Student
Workbooks
High School
Book 1

by Ask a Tech Teacher

Experiment with as many of these as you have time for.

_Review screenshots (more on this later). Often, you will annotate a page (say, a rubric) in your workbook, then save a screenshot of it to your digital portfolio.

Annotation Tool

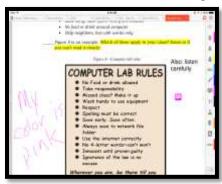
_Your teacher will show you how to write in your student workbook with an annotation tool such as iAnnotate for iPads and Chromebooks (Figure 9a), Notability for iPads (Figure 9b), Notable for Chromebooks, Adobe Acrobat (Figure 9c), or another tool available in your school.

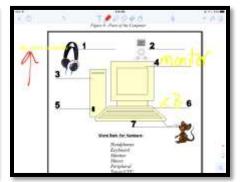
Your teacher will review options available in the annotation tool such as:

- highlighting
- text and freeform notes
- screenshots
- sharing/collaborating

_____If you're sharing a PDF (for example, it's loaded on a computer that multiple classes use), select a personal color different from other students.

Figure 9a—iAnnotate; 9b—Notability; 9c—Adobe Acrobat







Avatars

_Create a **profile picture with an avatar** creator like (click link or use your favorite):

- Animal yourself
- <u>Pickaface</u>

- Storyboard That!
- <u>Voki yourself</u>

Figure 10a-c—Avatars







____These can be used in your personal blog, website, digital portfolio page, or any other digital platform that requires a profile picture.

Backchannel Devices

_The 'backchannel' is classroom communication that isn't from the presenter. Backchannels encourage you to share your thoughts and questions while a lesson is going on. Typically, the comments show up on the class screen, shared with all classmates, likely anonymously. You and classmates read and respond. Your teacher uses them to notice when your class gets/doesn't get a topic s/he is covering.

_Popular backchannel options are:

- <u>Padlet</u> a virtual wall where you add and respond to comments; Figure 11a
- <u>Socrative</u> a closed virtual room where you can answer questions, take polls, and discuss what's on your mind; Figure 11b
- **Twitter** a virtual stream of comments organized by hashtags; it can be private or public and is used only for purposes of this class

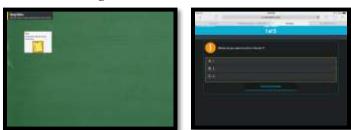


Figure 11a-c—Backchannel devices

__Your teacher will introduce the backchannel device being used in your classroom, demonstrate how to open it and use it, and then ask you to test it.

__If you use a backchannel device in another class, let your teacher know. S/he may decide it is a good choice for this class.

Blogs

_Blogs are short online articles with the express purpose of sharing ideas, collaborating with classmates, understanding other perspectives, honing writing skills, and garnering feedback. Blogs are particularly effective in assisting you to:

- o engage effectively in collaborative discussions with diverse partners
- o build on others' ideas
- o express your own ideas clearly
- o develop writing skills suited to the particular task, purpose, and audience
- o use evidence (links, images, and more) in developing an argument

_____Blogs are student-directed, but your teacher will approve all posts and comments until you get used to the rules that apply to online conversations.

_Blogs reflect your personality with colors, fonts, and widgets. What you include in layout and

design will help classmates and your teacher better understand your interests and how you learn.

_*Figures 12a-c* are examples of student blogs. Notice how they incorporate text and images to discuss a topic:









In general, your blog will require:

- a title to pull the reader in
- tone/voice that fits this type of writing and intended audience
- working linkback(s) to evidence that supports statements
- at least one media to support each article (picture, video, sound)
- understanding of the target audience
- understanding the purpose—how is it different from tweets? Essays? Poetry?
- citations—authors name, permission, linkbacks, copyright where required
- occasional teamwork

_Before beginning, you will sign an agreement similar to *Blogging Rules (Figure 13a*—full size at the end of the lesson). Discuss the agreement with parents and bring it to school before the next class. Feel free to sign the copy at the end of this lesson, take a screenshot, and email that to your teacher.



_Discuss blogging netiquette. It is similar to email etiquette discussed in other parts of this curriculum. In short:

- be polite
- use good grammar and spelling, as you would in other correspondence (not the texting shorthand in SMS messages)
- don't write anything everyone shouldn't read

Remember: Any time you type at your digital device, practice good keyboarding. This includes comments on classmate blogs and your own posts.

Once a month, expect to post an article that discusses an inquiry topic. Additionally, visit and comment on five classmate blogs.

_A reminder: Only post comments that are friendly, non-judgmental, and school-appropriate. _Occasionally throughout the year, your teacher will use the Student Blogs Rubric (*Figure 13b*—full-size assessment at the end of the lesson) to assess your progress. Review the criteria to be sure you understand how to meet expectations.

Figure 13a—Blogging rules; 13b—blogging rubric

	Blogging Rules
	(adapted from Academy of Discovery will)
1.	I will not give out any information more personal than my first name
2	I will not plagranze; instead I will expand on others' ideas and give credit where it is due.
3.	I will use language appropriate for school.
4	I will always respect my fellow students and their writing.
5.	I will only post pieces that I am comfortable with everyone seeing.
6	I will use constructive/productive/purposeful criticism, supporting any idea, comment, or critique I have with evidence.
7-	I will take blogging seriously, posting only comments and ideas that are meaningful and that contribute to the overall conversation.
8.	I will take my time when I write, using formal language (nottext lingo), and I will try to spell everything correctly.
9	I will not bully others in my blog posts or in my comments.
10.	I will only post comments on posts that I have fully read, rather than just skimmed.
11.	I will not reveal anyone else's identity in my comments or posts.
	raction of the Biogging Rules may result in loss of blogging privileges alternative assignment will be required.

CRITERIA	Exemplary	Proficient	Partially	Incomplete	POINTS
Relevance of Content to Students and Parents	Epoints Content has useful miss on the part of the pa	6 aprints Content points maders to qualify/reported. Informative Resourcesome opening de- mother de- mother de- mother de- mother de- mother de- mother de- mother de- easily	Content points to unsetted in the matter. Resources are not clearly described to readers connot navigate easily.	Resource; point- ad to de-hace custe, miseda ing or inappro- priorte Annotations are mising donor accorbs what's toyed	
Use of Media	Media entance content and interest. Deadwityen-hances content	4 points World medicen- hange-content World Residow creativity	Some medicularity enhance content Some use of oregitarity a evident to enhance content.	Media are Inap- propriate orde- fractiformicon- tent.	
Fair Use Guidelines	£ points Fair use guidelines are followed with proper citations.	daoinh Fairuse guidelries are frequently tolowed marimaterial salted	Zpoints Sometime for use guidefinance followed with some oitafons.	Poolett Fairuse guidelines are not followed. Material is improperly ofted.	
Links	Armitian active and functioning	Zaelth Mar Inta are active	Logist Tome Into the not active.	Epoints Many into are not octive	
Layout and Text Elements	Leakt Forti de eday- to-read Lite of bullets iflafis bold, et- hancerreadabli fy. Consideration end fivoughout	Zabith Jamet mesforts, size bullets, faility bold, default from readability. Minor formatting inconsistences exist.	Legist Instruct Souths read due to lor- matting	Epoint Individual to read with misure of forth size, but lets, its/ca bod Many tempathing food are misured.	
Writing Mechanics	2 points no gramma: copilabation punctuation spelling erior	Zasinhi Few grammar, capitolization, punctuation, and spelingerasi	Lookt 4+ ered in grammar, capitalization, punctuation, and speling	Epoleta More than a gammar/ speling/ punchuston eros	
				TOTAL POINTS	6/36

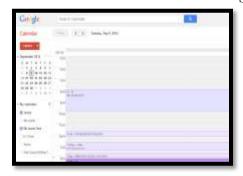
Class Calendar

_Your teacher will post a **digital class calendar** that tracks due dates, class events, and other important information. It might be created in Google Calendar (*Figure 14a*), Office 365, a Padlet template (*Figure 14b*), MS Publisher (*Figure 14c*), or another option. If possible, s/he'll embed it into the class website. It might also be possible to embed it into your blog so that it auto-updates. Check with your teacher on that possibility.

_Volunteer to demonstrate how to edit the calendar by adding homework.

_Volunteer to add events to the calendar for one month. Start with next week's Hardware quiz (if you're having it). Or, your teacher may allow everyone to do this. If so: Contribute responsibly to the class calendar.

Figure 14a—Class calendar in Google; 14b—Padlet; 14c—DTP







Class Internet Start Page

A class Internet start page is a website that comes up when you open the Internet. It organizes critical content in a single location and curates links you will use.

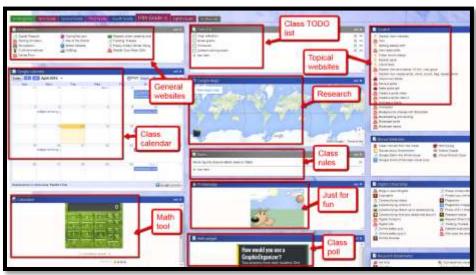


Figure 15—Class Internet start page

_You might use <u>Protopage.com</u> (*Figure 15*), <u>Ighome</u>, <u>or a collection site like <u>Symbaloo</u> (*Figure 15a*), <u>Portaportal</u> (*Figure 15b*), <u>LiveBinders</u> (*Figure 15c*), a class Diigo account, a class OneNote account, or the class Evernote account.</u>

Figure 16a—Class start page in Symbaloo; 16b—Portaportal; 16c—LiveBinders



____Remember: Any time you visit the Internet, do so safely and legally.

Class website

_____You may have a **class website** to track class activities, keep parents in the loop, and embed sharable projects, i.e., Tagxedos and Animotos. Your teacher will let you know where that is and how to access it.

Class Webtools

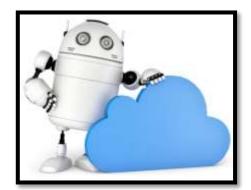
_____Class webtools are programs accessed directly from the Internet. They aren't on the digital

device you use at school. Webtools can be used anywhere but do require an internet connection. That means if you start a project at school, you can finish it at home—no problem.

There are a wide variety of webtools that you will use this year to complete projects which may include:

- digital keyboarding program (i.e., Type to Learn, Nitro Typing)
- avatar creator for digital citizenship
- badge to assess progress
- digital storytelling
- reading library

_Log into all of your class webtools right now to make sure there are no problems.



Digital Note-taking

_Here are five digital note-taking methods you might use (zoom in for how-to notes):

- word processing program (for any digital device) Figure 17a
- Notability (for iPads) Figure 17b

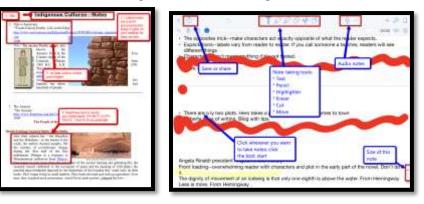


Figure 17a-b—Note-taking tools

• Google Apps – for any digital device; Figure 18 (zoom in if needed)

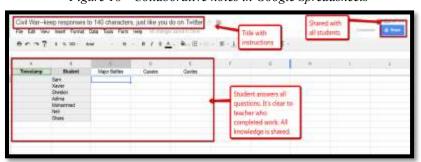


Figure 18—Collaborative notes in Google Spreadsheets

- Evernote/OneNote (for most digital devices) Figure 19a
- Twitter (for most digital devices) Figure 19b

Figure 19a—Evernote; 19b—Twitter





_Here's why you want to take notes (from Common Core):

- determine central ideas, author's purpose, and key steps
- provide an accurate summary
- cite text evidence to support analysis
- analyze structure used to organize text

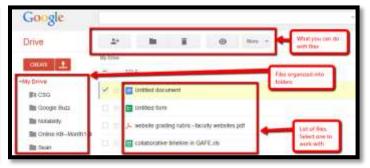
Digital portfolios

_Digital Portfolios are where you store your work other than your local drive. This means when you're looking for a document, you need only go to this one location to find it. If you have Google accounts at school, Google Drive may serve as your digital portfolio.

_Some digital portfolios are Internet-based, others on a dedicated server that's accessed through the school. Your teacher will tell you which of these two options applies to your portfolio.

Figure 20a—A wiki; 20b—Google Drive





Purposes of the digital portfolio include:

- interact, collaborate, and publish with peers
- edit or review work in multiple locations
- submit class assignments

_Practice uploading to your digital portfolio:

Dropbox

- _____If your school has a **dropbox option**, your teacher will review it. If not, s/he'll show you how you are expected to submit classwork and homework.
 - _An assignment dropbox can be created through the school Learning Management System (LMS), email, Google Apps (through a 'share' function) or even a Discussion Board.
 - ___If you have Google Apps but not a Google Classroom LMS, create a Homework dropbox like *Figure 21* (zoom in if necessary):
 - Create a folder called 'Homework' that is shared with your teacher.
 - To submit work, copy it to that folder so your teacher can view and comment.

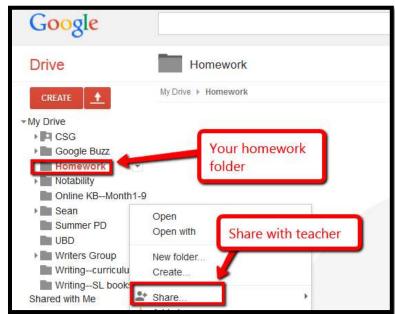


Figure 21—Homework dropbox

Email

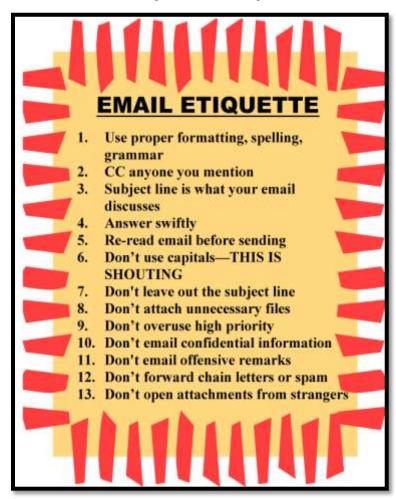
_____The best option in school is to use a **webbased email account** such as Gmail (comes with GAFE and Google Classroom).

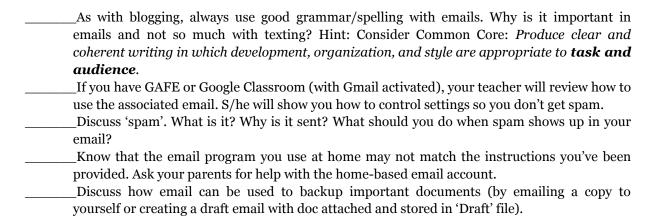
_Volunteer to clarify terms like 'high priority', 'chain letters', and 'CC' for classmates. _Review **email** etiquette (*Figure 22*—zoom in if needed):

- *Use proper writing conventions and re-read before sending.*
- CC anyone mentioned.
- Make 'Subject line' topic of email.
- Answer swiftly.
- Don't use all caps—THIS IS SHOUTING.
- Don't attach unnecessary files.

- Don't overuse high priority.
- Don't email confidential information.
- Don't email offensive remarks.
- Don't forward chain letters or spam.
- Don't open attachments from strangers.

Figure 22—Email etiquette





_When you get an email, follow this checklist:

- Do you know the sender?
- Is email legitimate? For example, does the 'voice' sound like sender?
- Is sender asking for personal information? Legitimate sources never do.
- Is there an attachment? If so, don't open it.

Evidence Board

_The **Evidence Board** (*Figure 23a*) is a bulletin board that celebrates the transfer of knowledge from tech class to home, friends, or other educational endeavors.

_About once a month, share how you use tech skills outside of class. You will make a tensecond presentation, fill out a badge (like *Figure 23b*), and post it on the Evidence Board. By year-end, this collection will encircle the classroom.



Figure 23a—Evidence Board; 23b—Badge



Google Apps

_Google Apps are a suite of basic productivity tools that you will use for class projects. They may include:

- Gmail (for email)
- Google Draw
- Google Drive and associated apps
- Google Forms
- Cloud storage
- Google Calendar
- YouTube



- _____These are available at school and at home. Documents created in them are also available anywhere you can access the Internet.
 - ____Also appealing: It's easy to collaborate with classmates on any document created in Google Apps.
- _____Everything created in Google Apps is backed up instantly in the Cloud. Importantly, it enables collaboration and sharing.
- _____Your teacher will show you how to use your account including how to log in, access the Drive, and share documents with others. S/he will also let you know which of the Google Apps you will be using this year and how to use them (if needed).

Journaling

_____If you will be **journaling**, your teacher will show you which digital tool you'll use. It might be <u>Penzu</u>, a word processing program, or your blog.

_Take time to log into your journaling tool and prepare your first post.

Screenshots and Screencasts

__You will use **screenshot** (still images) tools, apps, or add-ons (depending on your digital device), as well as **screencasts** (videos) to record information from your screen. More on these in the lesson on *Screenshots and Screencasts*.

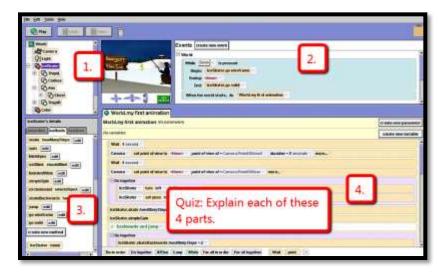


Figure 24—Screenshot quiz

_Often, you will annotate an assessment, rubric, or checklist in this workbook. Save it to your digital portfolio with a screenshot or share it with your teacher. Depending on your digital device, you might use:

- **Windows**: the Snipping Tool (comes with Windows)
- Chromebook: hold down the control key and press the window switcher key
- Mac: Command Shift 3 for full screenshot and Command Shift 4 for a partial

- Surface tablet: hold down volume and Windows button at the same time
- **iPad**: hold Home button and power button at the same time
- Online: a screenshot tool like Jing or Snagit

Student website

Most teachers will select either blogs or websites for students, depending on their goal:

- Blogs are more interactive and time-sensitive.
- Websites more fully cover a topic and new posts don't push older out of the way.

____Like blogs, websites are a great way to encourage reflection, organization, logical thinking, and are a perfect place to embed sharable projects, i.e., Tagxedos and Animotos.

_Websites are available with Google Apps. If your school doesn't have Google Apps, free websites can be created at <u>Weebly</u>, <u>Wix</u>, or blog accounts like <u>Wordpress</u>.

_Occasionally (several times a grading period), your teacher will assess your website based on the criteria in *Figure 25* (full-size assessment at end of the lesson):

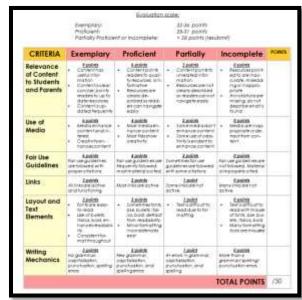


Figure 25—Student website rubric

_General guidelines are similar to blogs:

- Website and article titles pull the reader in.
- Articles review what readers can expect, provide evidence with supporting links, and include a summary of the content.
- Tone/voice fits this type of writing and intended audience.
- Links connect to evidence and links work.
- At least one media is provided to support each article (picture, video, sound).
- Writing purpose is clear. How is a blog goal different from essays? Poetry?
- Citations are included as needed.

Vocabulary Decoding Tools

_Your teacher will show you how to access the native apps or webtools on your digital device that can be used to **decode vocabulary** you don't understand. Depending on the device, these will be on the homepage, the browser toolbar, a shortkey, or a right-click. With these tools, you can quickly look up words rather than skip content that includes the word. Practice with several of the words in this lesson's *Vocabulary* list.

_Options for decoding vocabulary include:

- right-click on a word in MS Word and select 'Look up'
- right-click in Google Apps (i.e., Google Docs) and select 'research'
- an online dictionary (Figure 26a is an app)
- a browser app like MS's Advanced English Dictionary (Figure 26b)
- a browser extension (like <u>Google Dictionary</u> in Figure 26c)





Figure 26a-c—Vocabulary decoding tools



Class exit ticket: Send a well-constructed email to a classmate and reply to one you receive.

Extension:

- <u>Click here</u> for how to use Padlet.
- What's Evernote? Watch this video.
- For more Google Apps, try <u>Scholar or Translate</u>



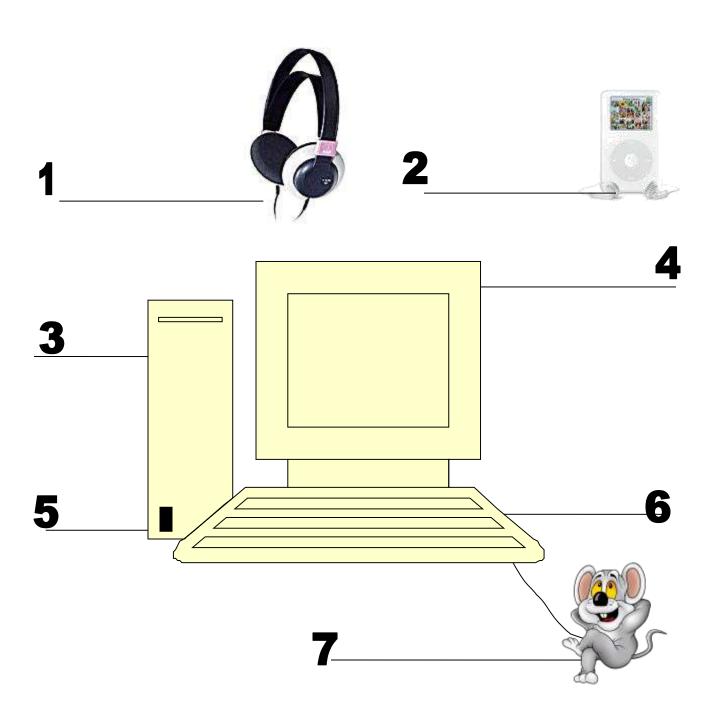
Assessment 1—Parts of the computer

HARDWARE—PARTS OF THE COMPUTER



Student name: _____

Name each part of computer hardware system and whether it's INPUT or OUTPUT. Spelling must be correct to get credit



Assessment 2—Parts of the smartphone

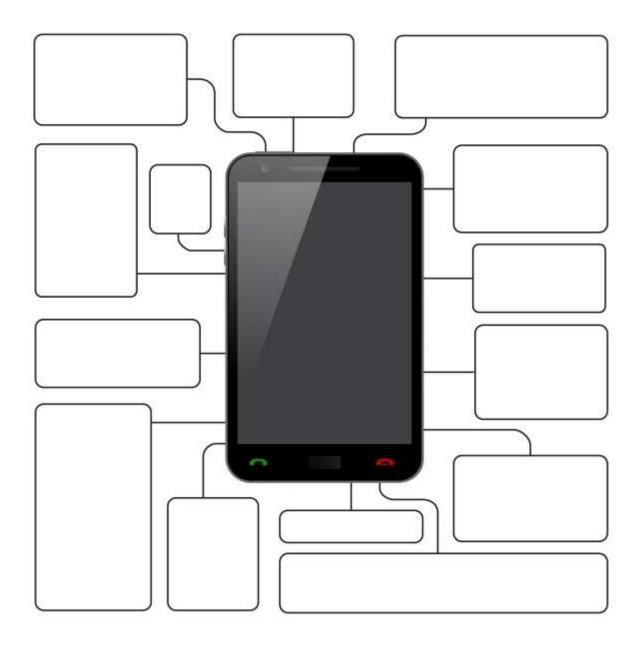
HARDWARE—PARTS OF THE SMARTPHONE



Student name:

Name each part of computer hardware system and whether it's INPUT or OUTPUT. Spelling must be correct to get credit

Adapt this to your needs



Assessment 3—Parts of an iPad

Parts of an iPad



Student name: _____

Name each part of computer hardware system and whether it's INPUT or OUTPUT. Spelling must be correct to get credit



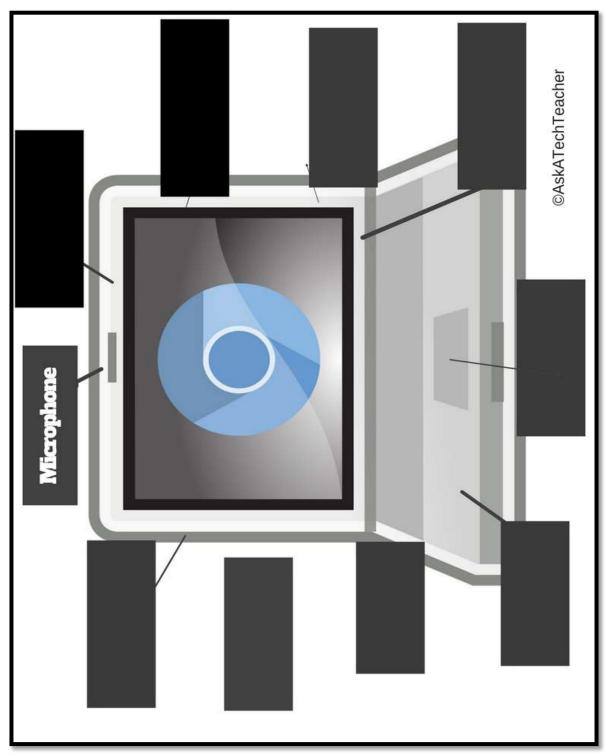
Assessment 4—Chromebook parts

Parts of a Chromebook



Student name:

Name each part of computer hardware system and whether it's INPUT or OUTPUT. Spelling must be correct to get credit



Assessment 5—Student blogging agreement

Blogging Rules

- 1. I will not give out any information more personal than my first name
- 2. I will not plagiarize; instead, I will expand on others' ideas and give credit where it is due.
- 3. I will use language appropriate for school.
- 4. I will always respect my fellow students and their writing.
- 5. I will only post pieces that I am comfortable with everyone seeing.
- 6. I will use constructive/productive/purposeful criticism, supporting any idea, comment, or critique I have with evidence.
- 7. I will take blogging seriously, posting only comments and ideas that are meaningful and that contribute to the overall conversation.
- 8. I will take my time when I write, using formal language (not text lingo), and I will try to spell everything correctly.
- 9. I will not bully others in my blog posts or in my comments.
- 10. I will only post comments on posts that I have fully read, rather than just skimmed.
- 11. I will not reveal anyone else's identity in my comments or posts.

Any infraction of the Blogging Rules may result in loss of blogging privileges and an alternative assignment will be required.

Student Signature	Date

Intentionally deleted

LESSON #3 DIGITAL CITIZENSHIP

Vocabulary Problem solving		Skills
Avatar	 Can't find answer (did you try all options?) 	
 Cyberbullying 	 Internet toolbar disappeared (click 'full 	Digital citizenship
 Cyberstalking 	screen mode')	Keyboarding
 Digital citizen 	 I don't want parents to know where I am 	Problem solving
• Flaming	(why?)	Social media
• GPS	Online's anonymous! Why do I have to fol-	Speaking and
 Netiquette 	low so many rules? (do the right thing	listening
 Plagiarism 	when no one's watching)	



How do I act in a virtual neighborhood?

- Worked independently as a good digital citizen
- Finished required projects
- Used good keyboarding habits
- Completed warm-up, exit ticket
- Successfully annotated workbook
- Joined class conversations
- Left station as it was (neat and orderly)

Step-by-step

Class warm-up: Keyboard on the class typing program, paying attention to posture.

Required skill level: Basic understanding of digital rights and responsibilities.

Make sure your backchannel is open (if you use this) so you can fully participate.

_Discuss what it means to be a good digital citizen? Why is this important if no one knows who you are? Must you be honest if you're anonymous? Who does it hurt?

_Discuss *Figure 27*—by John Wooden, legendary coach (zoom in if needed)?

_Throughout the school year, you and classmates will discuss the topics listed below. Your teacher will tell you which are relevant to your group. They scaffold learning, making lessons more authentic and relevant. Where possible, lead the discussion, set the pace, and ask questions that are native to your experiences.

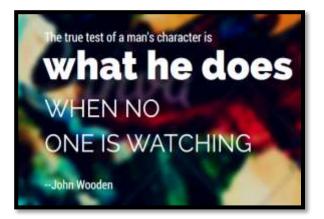


Figure 27—True test of a man

Cyberbullying

Discuss <u>What Do You Do If You're Being Bullied Online</u>. Review statistics in <u>Think Time:</u>

<u>How Does Cyberbullying Affect You.</u>

Watch and discuss <u>You Can't Take it Back.</u> What precautions can you take to ensure you are

watch and discuss <u>You Can't Take it Back.</u> What precautions can you take to ensure you ark kind and supportive online?

__If you have blogs, with this discussion fresh, comment on classmate posts. Include a compliment, suggestion, or question. Keep the conversation on topic and relevant.

Digital Communications

_Digital communication includes email, blog comments, texting, cell phones, and discussion forums. Many of these topics are discussed elsewhere.



Discuss **texting**. Watch this video on **Texting**.

Watch and discuss one of these videos:

- <u>It can wait</u> video showing simulation of driver distracted by texting
- <u>Texting etc.-Chicken Road YouTube</u>
- <u>Safe texting-video</u>
- <u>Texting</u>—a game that gauges your distraction while driving and texting
- <u>Texting While Walking</u>—from the NYT, a video oped
- <u>The Last Text</u> –video
- <u>The Unseen</u> video simulating distracted driver
- Wait for it very sad video about texting and driving

_Does your school allow **cell phones**? What are reasons to have one?

- stay in touch with parents
- for emergencies
- so parents know where you are (via GPS)
- to collaborate and share

__What are reasons you shouldn't?

_By a show of hands, how many of your parents try to control cell phone use by:

- limiting your time on it
- limiting plan
- having you share in the cost
- set up text-free zones, like dinner
- ???

_Does this work? What else would? Discuss your responsibilities with cell phones, including:





- don't overuse them; don't over-text
- don't let them interfere with classwork
- don't use them for academic dishonesty
- don't use them for cyberbullying; don't share inappropriate information

Digital footprint



What is a 'digital footprint'? Last year, you might have searched your name to discover your digital footprint. Do this again. Has it changed?

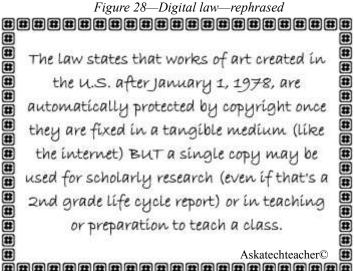
Watch and discuss these videos on Digital Footprints:

- What's a digital dossier (footprint)
- **Digital Footprint**
- Digital Life 101



Digital Law and Plagiarism

Discuss copyright law. Review summation of law in Figure 28 (zoom in if necessary).



What are consequences of infringing copyrights? Some people want to share their work and collaborate with others. Watch and discuss Wanna Work Together about Creative Commons licensing. Watch and discuss A Fair(v) Use Tale about digital security, copyrights, and fair use. What does 'plagiarism' mean? Why give credit to original authors/artists? What can/can't be 'borrowed' from online sites? Discuss image copyrights, fair use, and public domain. What are repercussions of 'plagiarism'?

Watch this Plagiarism video.

Discuss how to cite a website. Visit EasyBib or Citation Machine.

Digital privacy

	1 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1
Watch and discuss <u>6 Degrees of Infor-</u>	THE DESIGNATION OF THE STATE OF
mation. How easy it is to find anyone	The state of the s
through online crumbs.	1 10 11 11 11 11 11 1 1 1 1 1 1 1 1 1 1
Watch and discuss the <u>online life of a photo</u>	Name of the last o
posted by an unknowing student.	
Watch Eduardo as he posts pictures he	A LANGE OF THE SECOND
considers innocent—Two Kinds of Stupid.	
Discuss use of avatars to protect online	A CHARLES THE STREET
privacy. For more, see lesson on <i>Digital</i>	
Tools.	
Expand discussion into Online Reputations. W	atch and discuss http://bit.ly/1sFIPzG.
Wrap up with a discussion on hacking and pri	
about this. Should they? Is it a victimless crin	
What is the difference between 'hacking' and 'cr	· ·
,, and a the americance poetwood fluctuing and ex	

Digital rights and responsibilities

_____What are 'digital rights and responsibilities'? Most students come up with 'rights'—access to the Internet, use of information, creation of documents to be published and shared, freedom of expression—but what are the 'responsibilities' of a digital citizen? How about these:

- Don't share personal information. Don't ask others for theirs.
- Be aware of your cyberspace surroundings. Act accordingly.
- As in your community, be kind to others. Anonymity doesn't protect you.
- If someone is 'flaming' another, help stop it within your abilities.

_____Watch this <u>YouTube video</u>.

Digital search and research



_____Discussed in lesson on Internet Search and Research.

Fair use, Public domain, Image Copyright

____Discussed in the lesson on Online Image Legalities.

Internet safety

 Discuss password guidelines and rules. Remember: Never share passwords.	
Watch and discuss <u>Broken Friendship</u> .	*****
 Volunteer how you protect your passwords and online safety when using the Internet.	-
 What's the difference between 'http' and 'https'? If you have a web site, do you have	e this
enhanced level of security? How important is this?	

Netiquette

_____What is 'netiquette'?
_____Discuss the criteria in *Figure 29* (zoom in if necessary).





Social Media

Discuss **Twitter** and hashtags—watch https://youtu.be/abgRCmkm6No.

_Break into groups and discuss **FB**, **YouTube**, other social media. What are challenges of so much openness? Then discuss as a class and share thoughts via a blog post or class Twitter feed. Thoughts should be objective, on-point, with precise and domain-specific language appropriate to the task, audience, and purpose.

Class exit ticket: Tweet on the class Twitter account (or add a comment to class blogs)

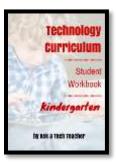
about how you stay safe online.

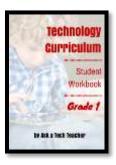
Extension: Volunteer to enter classwork and homework due dates into the class cal-

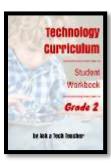
endar.

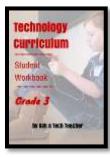
MORE FROM STRUCTURED LEARNING

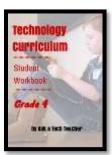
If you're looking for other student workbooks that accompany the technology curriculum, try these:

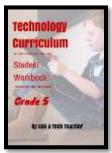


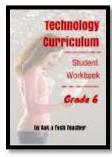


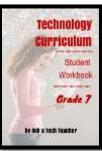


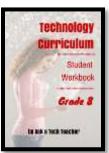












Ask your teacher how you can use this ebook on:

IPads... PCs... iMacs... Laptops... Macbooks... Netbooks... Chromebooks... Smartphones... At home

















