Second Grade	Tech Smarts
	Computer Basics/Technology
	Pennsylvania Academic Standards:
	1.1.3E Demonstrate fluency in oral reading of grade level texts.
	1.6.3A Listen critically and respond to others in small and large group situations.
	Respond with grade level appropriate questions, ideas, information, or opinions.
	3.7.4C Identify basic computer operations and concepts.
	ISTE/NETS:
	2. Communication and Collaboration
	Students use digital media and environments to communicate and work collaboratively,
	including at a distance, to support individual learning and contribute to the learning of
	others.
	Students:
	a. interact, collaborate, and publish with peers, experts, or others employing a variety of
	digital environments and media.
	b. communicate information and ideas effectively to multiple audiences using a variety
	of media and formats.
	6. Technology Operations and Concepts
	Students demonstrate a sound understanding of technology concepts, systems, and
	operations.
	Students:
	a. Understand and use technology systems.
	Essential Understandings:
	Computers are tools that help us do jobs more efficiently.
	There are many different technology devices.
	Overarching and Essential Questions:
	What are the basic computer devices?
	Vocabulary:
	Cables
	CD/DVD

Keyboard
Laptop
Monitor
Mouse
Mouse pad
Printer
Speaker
Tower
USB drive
Online storage
Assessments: Performance Tasks, Projects
Matching words to pictures.
Assessments: Quizzes, Tests and Academic Prompts
PowerPoint quiz (from CD)
Matching paper/pencil quiz (from CD)
Assessments: Other Evidence (e.g., observations, work samples, dialogues)
Teacher observation of Can you find? and matching activities
Assessments: Student Self-Assessment
The students are able to use the new vocabulary in class to refer to a device.
Students will need to know (targeted understandings):
Technology vocabulary based on the different computer devices.
Students will be able to do (targeted skills):
Demonstrate a sound understanding of technology concepts, systems, and operations.
Demonstrate their knowledge of the different computer devices through a project.
Teaching and learning experiences:

Using the following lessons from Teacher Resource book:	
Computer Basics Slide Show (PowerPoint) – page 28	
Identify the Devices – page 31	
Make a Book – page 32	
Coloring Book – page 36	
Materials and Resources:	
Teacher Resource book:	
Kids, Computers, and Learning by Holly Poteete	
The 12 devices - Cables, CD/DVD drive, CD/DVD, keyboard, laptop, monito	r, mouse,
mouse pad, printer, speakers, tower, USB drive	
CD from text	
Projector	
Picture/vocabulary cards (laminated)	
Accommodations:	
Seating arrangements and visual aides	
Follow IEP and 504 Plans	
Buddy system	
Enrichments:	
Differentiated activities when necessary	
Time:	
2 to 3 sessions; 45 minutes once a cycle	
2 to 3 sessions; 45 minutes once a cycle Name/Date Curriculum Completed: Greenawald/Hovis/Klinedinst/Rice, A	August

Second Grade	Tech Smarts
	Internet and Computer Safety
	Pennsylvania Academic Standards:
	1.1.3E Demonstrate fluency in oral reading of grade level texts.
	1.6.3A Listen critically and respond to others in small and large group situations.
	Respond with grade level appropriate questions, ideas, information, or opinions.
	3.7.4E Identify basic computer communication systems.
	5.1.3A Explain the purposes of rules, laws and consequences.
	5.2.3A Identify personal rights and responsibilities.
	5.2.3B Identify the sources of conflict and disagreement and different ways conflict can
	be resolved.
	13.3.3A Identify attitudes and work habits that contribute to success at home and school.
	13.3.3B Identify how to cooperate at both home and school.
	13.3.3G Discuss how time is used at both home and school.
	ISTE/NETS
	2. Communication and Collaboration
	Students use digital media and environments to communicate and work collaboratively,
	including at a distance, to support individual learning and contribute to the learning of
	others.
	Students:
	a. interact, collaborate, and publish with peers, experts, or others employing a variety of
	digital environments and media.
	b. communicate information and ideas effectively to multiple audiences using a variety
	of media and formats.
	5. Digital Citizenship
	Students understand human, cultural, and societal issues related to technology and
	practice legal and ethical behavior.

Students:
a. advocate and practice safe, legal, and responsible use of information and technology
b. exhibit a positive attitude toward using technology that supports collaboration,
learning, and productivity
c. demonstrate personal responsibility for lifelong learning
6. Technology Operations and Concepts
Students demonstrate a sound understanding of technology concepts, systems, and
operations.
Students:
a. understand and use technology systems
b. select and use applications effectively and productively
Essential Understandings:
Content on Internet can be posted by anyone and must be evaluated.
Bullying is unacceptable behavior at all times, including in an online environment.
Not all websites are reliable sources.
There are appropriate ways to communicate on-line.
Software can be used to block website information.
Computers need to be protected from viruses.
Communication shared on the Internet is not private
Overarching and Essential Questions:
What is Digital Citizenship (Netiquette)?
What is UYN – Use your NetSmartz?
What is a virus and how can it harm your computer?
What is a filter and why would you use it?
Vocabulary:
Cyber Bullying
UYN – Use your NetSmartz
IM – Instant Messaging
Chatting
Virus
Pop up
Spyware

Attachment
E-mail
E-card
Anti-virus software
Filtering software
Digital Citizenship (Netiquette)
NetSmartz
Assessments: Performance Tasks, Projects
Netiquette Wordle printouts, Netiquette Posters (see example - name on top, glue
netiquette terms to construction paper, glue 8.5 x 11 white plain paper where students
will draw a picture of netiquette, and underneath write a phrase or sentence describing
picture).
 Assessments: Other Evidence (e.g., observations, work samples, dialogues)
Observation and dialogue
Assessments: Student Self-Assessment
The student will play the Internet and Computer Safety game and videos at the web site NetSmartzkids.org.
Students will need to know (targeted understandings):
Students will be able to understand the vocabulary: UYN – Use your NetSmartz; IM –
Instant Messaging; Chatting; Virus; Pop up; Spyware; Attachment; E-mail; E-card;
Anti-virus software; Filtering software; Digital Citizenship (Netiquette); NetSmartz
Students will be able to do (targeted skills):
The student will be able to use the vocabulary: UYN – Use your NetSmartz; IM –
Instant Messaging; Chatting; Virus; Pop up; Spyware; Attachment; E-mail; E-card;
Anti-virus software; Filtering software; Digital Citizenship (Netiquette); NetSmartz
Teaching and learning experiences:
Using the following lessons from Teacher Resource book:
Internet Safety Song – page 51
Online Interactive Stories – page 53

	Treat Others the Way You Want to be Treated – page 55
	Internet Safety Terms – page 57
	Internet Safety Slide Show – page 60
	Internet Safety Shide Show – page 60
	*See assessments for other learning experiences
	Materials and Resources:
	Tech Smarts poster
	NetSmartzkids.org (games – green icon; videos - red camera) UYN the NetSmartz chat
	abbreviation – featuring Alison Stoner
	Wordle.net (Netiquette) List of words about the related topic
	Teacher Resource book: Kid's, Computers, and Learning by Holly Poteete
	Laptop
	Headphone
	Color printer
	Interactive Whiteboard
	Accommodations:
	Seating arrangement and visual aides
	Follow IEP and 504 Plans
	Buddy system
	Enrichments:
	Differentiated activities when necessary
	Time: 5 to 6 sessions; 45 minutes once a cycle; ongoing throughout other units
	Name/Date Curriculum Completed: Greenawald/Hovis/Klinedinst/Rice, August 2011
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Second Grade	Tech Smarts
	Hardware
	Pennsylvania Academic Standards:
	1.1.3E Demonstrate fluency in oral reading of grade level texts.
	1.1.3F Understanding the meaning of and use correctly new vocabulary learned in various subject areas.
	1.6.3A Listen critically and respond to others in small and large group situations.
	Respond with grade level appropriate questions, ideas, information, or opinions.
	1.6.3D Contribute to discussion.
	1.6.3E Participate in small and large group discussions and presentations.
	2.6.3D Form and justify an opinion on whether a given statement is reasonable based on
	a comparison to data.
	3.7.4C Identify basic computer operations and concepts.
	3.7.4D Use basic computer software.
	ISTE/NETS Standards:
	2. Communication and Collaboration
	Students use digital media and environments to communicate and work collaboratively,
	including at a distance, to support individual learning and contribute to the learning of
	others.
	Students:
	a. interact, collaborate, and publish with peers, experts, or others employing a variety of
	digital environments and media
	3. Research and Information Fluency
	Students apply digital tools to gather, evaluate, and use information.
	Students:
	b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a
	variety of sources and media
	c. evaluate and select information sources and digital tools based on the appropriateness

to specific tasks
5. Digital Citizenship
Students understand human, cultural, and societal issues related to technology and
practice legal and ethical behavior. Students:
a. advocate and practice safe, legal, and responsible use of information and technology
b. exhibit a positive attitude toward using technology that supports collaboration,
learning, and productivity
c. demonstrate personal responsibility for lifelong learning
d. exhibit leadership for digital citizenship
6. Technology Operations and Concepts
Students demonstrate a sound understanding of technology concepts, systems, and
operations.
Students:
a. understand and use technology systems
b. select and use applications effectively and productively
d. transfer current knowledge to learning of new technologies
Essential Understandings:
Hardware is the physical component of the piece of technology.
Hardware accepts input, processes and stores data and produces output.
Overarching and Essential Questions:
How do you properly handle and store hardware?
How do you use the specific hardware?
What is an App?
Vocabulary:
Hardware
Арр
MP3 (e.g. iPod)
Tablet (e.g. iPad)

Laptop
Interactive Whiteboard
Projector
Printer
Document Camera
Scanner
Overhead Projector
Assessments: Performance Tasks, Projects
The students will interact with various apps and rate them using one to three stars for
favorites.
Assessments: Other Evidence (e.g., observations, work samples, dialogues)
Observation
Student/Teacher interaction
Assessments: Student Self-Assessment
The student will use different types of hardware.
Students will need to know (targeted understandings):
Hardware can accept input, process and store data and produce output.
The physical piece of technology that you touch and hold is called hardware.
Students will be able to do (targeted skills):
Properly pick up, carry and put back their hardware.
Turn on and off the hardware.
Explain and use an App.
Interact with whiteboard.
Add applications to the dock.
Teaching and learning experiences:

Name/Date Curriculum Completed: Greenawald/Hovis/Klinedinst/Rice, August 2011
 Time: 3 to 5 sessions; 45 minutes once a cycle
Enrichments: Offering additional hardware time when finishing their other tasks
 Buddy system
Follow IEP and 504 Plans
Seating arrangement and visual aides
Accommodations:
Document Camera
Interactive Whiteboard
Laptop Cart
Tablet Cart
Application store is used to download Apps (students will not do this) MP3 Cart
Kid's, Computers, and Learning by Holly Poteete
Teacher Resource book:
Materials and Resources:
Rate apps
Interactive Whiteboard
Tablet
MP3 Player
Laptop
Students will be introduced to the proper handling and usage of the following items:

Second Grade	Tech Smarts
	Software Applications
	Word Processing Programs
	Digital image software
	Mobile software applications
	Presentation programs
	Widgets (e.g. stickies, calculator, dictionary)
	Applications/Mobile Applications
	Cloud Computing (e.g. Spartan docs)
	Wiki/Blog
	Pennsylvania Academic Standards:
	1.1.3E Demonstrate fluency in oral reading of grade level texts.
	1.1.3F Understanding the meaning of and use correctly new vocabulary learned in
	various subject areas.
	1.4.3A Write narrative pieces.
	1.6.3A Listen critically and respond to others in small and large group situations.
	Respond with grade level appropriate questions, ideas, information, or opinions.
	1.6.3D Contribute to discussion.
	1.6.3E Participate in small and large group discussions and presentations.
	2.5.3A Uses appropriate problem-solving strategies.
	2.4.3A Make, check and verify predictions about the quantity, size and shape of objects and groups of objects.
	2.8.3A Recognize, describe, extend, create and replicate a variety of patterns including
	attribute, activity, number and geometric patterns.
	2.8.3G Use table or chart to display information.

2.9.3I Predict how shapes can be changed by combining or dividing them.
3.7.4D Use basic computer software.
3.7.4E Identify basic computer communication systems.
5.1.3A Explain the purposes of rules, laws and consequences.
5.2.3A Identify personal rights and responsibilities.
5.2.3B Identify the sources of conflict and disagreement and different ways conflict can
be resolved.
13.3.3A Identify attitudes and work habits that contribute to success at home and school.
13.3.3B Identify how to cooperate at both home and school.
13.3.3G Discuss how time is used at both home and school.
ISTE/NETS:
1. Creativity and Innovation
Students demonstrate creative thinking, construct knowledge, and develop innovative
products and processes using technology.
Students:
a. apply existing knowledge to generate new ideas, products, or processes
2. Communication and Collaboration
Students use digital media and environments to communicate and work collaboratively,
including at a distance, to support individual learning and contribute to the learning of
others.
Students:
a. interact, collaborate, and publish with peers, experts, or others employing a variety of
digital environments and media
3. Research and Information Fluency
Students apply digital tools to gather, evaluate, and use information.
Students:
b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a
variety of sources and media
c. evaluate and select information sources and digital tools based on the appropriateness
to specific tasks
5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and
practice legal and ethical behavior.
Students:
a. advocate and practice safe, legal, and responsible use of information and technology
b. exhibit a positive attitude toward using technology that supports collaboration,
learning, and productivity
c. demonstrate personal responsibility for lifelong learning
d. exhibit leadership for digital citizenship
6. Technology Operations and Concepts
Students demonstrate a sound understanding of technology concepts, systems, and
operations.
Students:
a. understand and use technology systems
b. select and use applications effectively and productively
Essential Understandings:
Word processing software can be used to communicate thoughts and ideas.
Word processing documents can be edited, formatted, saved and shared as the user
makes revisions.
Digital photo software can be used to capture and edit images that can be imported into
a word processing document.
Applications can be used to learn, improve efficiencies, communicate, collaborate and
entertain.
Documents can be created an saved in an online environment.
 Overarching and Essential Questions:
Why do we use word processing software?
What kind of changes can we make to a document that was created with word
processing software?
What does digital photo software do?
When do we use digital photo software?
Why do we use applications?

Why do you create and save in an online environment?
Vocabulary:
Word processing
Applications (e.g. mobile apps)
Download
Digital photo
Software
Highlight text
Format, edit, cut, copy, paste
Font name, font size, font color
Click and drag
File save and print
Insert shapes and table
Alignment
Effects
Capture
Shortcuts
Spacing between words
Punctuation
Cloud Computing
Assessments: Performance Tasks, Projects
Create a table in a word processing document.
Students will be able to change the font, font size, and color of text.
Students will use shift, space bar, delete, punctuation, tab, and enter/return keys on the
keyboard. (Spacing – one space after a word, no space before a word or a mark of punctuation)

Create a document using various shapes and a table. There is a sample in the drop off
folder on the shared drive.
Make notes, copy, cut, paste, change font, font size and color using Stickies.
Create and buddy share a PowerPoint/Keynote presentation about a common topic.
Open an application and us it to perform a task.
Student swill create a document in an online environment.
Assessments: Other Evidence (e.g., observations, work samples, dialogues)
Observations and printouts
Type a story using any word processing software
Student/Teacher interactions
Assessments: Student Self-Assessment
Self-editing with the delete key.
Students will need to know (targeted understandings):
When we use word processing software.
Word processing document can be edited, formatted and saved.
That digital photo software captures images that they can edit.
That we can use digital photo software to import images.
How and when to use specific applications.
When it is appropriate to use an online environment to create and save documents.
Students will be able to do (targeted skills):
Communicate original thoughts and ideas using word processing software on both a
local network and an online environment.
Revise their document.
Take a photo using digital photo software, edit and import into a document.
Open and application and use it.
Teaching and learning experiences:
Using the following lessons from Teacher Resource book:

	Word Processing toolbars – Pages/Word - page 130
	Creating a Document – page 136
	Using word processing software (for example):
	Create a table.
	Create a picture using shapes, WordArt, color, font name and size.
	Type words/stories and they cut, copy and pasted. (ex: spelling words)
	Insert a picture from clipart and Photo Booth.
	Use the software program Stickies to teach copy, cut and paste using their name,
	favorite color, favorite TV show and favorite animal.
	Materials and Resources:
	Teacher Resource book:
	Kid's, Computers, and Learning by Holly Poteete
	Photo Booth
	Word and/or Pages
	Interactive Whiteboard
	Laptop
	Color Printer
	Keynote/PowerPoint
	Stickies
	Accommodations:
	Teacher provided notes or visual aids (sentence starters, spelling lists)
	Follow IEP and 504 Plans
	Seating arrangement and visual aides
	Buddy system
	Enrichments:
	Take the given task a step further. (Add more columns in a table and/or add a sentence)
	Create extra slides for the presentation.
	Insert Photo into a document.
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Time: 6 to 8 sessions; 45 minutes once a cycle
Name/Date Curriculum Completed: Greenawald/Hovis/Klinedinst/Rice, August 2011

Second Grade	Tech Smarts
	World Wide Web and Communicating
	Pennsylvania Academic Standards:
	1.1.3E Demonstrate fluency in oral reading of grade level texts.
	1.1.3F Understanding the meaning of and use correctly new vocabulary learned in various subject areas.
	1.2.3B Use and understand a variety of media and evaluate the quality of material produced.
	1.6.3A Listen critically and respond to others in small and large group situations. Respond with grade level appropriate questions, ideas, information, or opinions.
	1.6.3D Contribute to discussion.
	1.6.3E Participate in small and large group discussions and presentations.
	1.8.3B Locate information using appropriate sources and strategies.
	1.8.3C Organize and present the main ideas from research.
	3.7.4D Use basic computer software.
	3.7.4E Identify basic computer communication systems.
	5.1.3A Explain the purposes of rules, laws and consequences.
	5.2.3A Identify personal rights and responsibilities.
	5.2.3B Identify the sources of conflict and disagreement and different ways conflict can be resolved.
	13.3.3A Identify attitudes and work habits that contribute to success at home and school.13.3.3B Identify how to cooperate at both home and school.
	13.3.3G Discuss how time is used at both home and school.
	ISTE/NETS Standards:
	3. Research and Information Fluency

 Overarching and Essential Questions:
Not all websites are reliable sources.
The Internet is a citable source and subject to copyright.
It is important to use internet search engines in a safe manner.
Essential Understandings:
d. transfer current knowledge to learning of new technologies
b. select and use applications effectively and productively
a. understand and use technology systems
Students:
operations.
Students demonstrate a sound understanding of technology concepts, systems, and
6. Technology Operations and Concepts
d. exhibit leadership for digital citizenship
c. demonstrate personal responsibility for lifelong learning
learning, and productivity
b. exhibit a positive attitude toward using technology that supports collaboration,
a. advocate and practice safe, legal, and responsible use of information and technology
Students:
practice legal and ethical behavior.
Students understand human, cultural, and societal issues related to technology and
5. Digital Citizenship
b. plan and manage activities to develop a solution or complete a project
a. identify and define authentic problems and significant questions for investigation
Students:
problems, and make informed decisions using appropriate digital tools and resources.
Students use critical thinking skills to plan and conduct research, manage projects, solve
4. Critical Thinking, Problem Solving, and Decision Making
to specific tasks
c. evaluate and select information sources and digital tools based on the appropriateness
variety of sources and media
a. locate, organize, analyze, evaluate, synthesize, and ethically use information from a
Students:
Students apply digital tools to gather, evaluate, and use information.

	How do you know that the website is reliable?
	How do you decide if the information is useful?
	How do you make someone else's information your own?
	How do you safely use internet search engines?
	What actions should you take if you encounter an inappropriate website?
	Vocabulary:
	Internet
	URL
	Status Bar
	Stop
	Back
	Home
	Refresh
	Tab
	Window
	Address Bar
	Web Browser
	Search Engine
	Wiki/Blogs
	Assessments: Performance Tasks, Projects
	Widgets
	PowerPoint/Keynote
	Southern Lehigh Web site search (handout)
	Assessments: Other Evidence (e.g., observations, work samples, dialogues)
	Student/Teacher interaction
	Handout
	Observations
	Assessments: Student Self-Assessment
	Students will be able to properly navigate to teacher web pages
•	•

Students will need to know (targeted understandings):
Not all websites are going to provide reliable and valid information.
A website ending with .org, .edu, and .gov is usually reliable.
When information is pertinent to their topic.
Copyright laws.
The Internet is not always safe.
Students will be able to do (targeted skills):
Summarize new information in their words.
Safely surf the Internet.
Find a reliable website resource.
Teaching and learning experiences:
Discovery Streaming Video (The Internet: A Guide for Students)
Web Browser Worksheet I supplement 4K (CD)
Copy and paste information from the Internet/Word/Pages to a widget
Copy and paste information from a widget into Keynote/PowerPoint
Accommodations:
Teacher provided notes or visual aids
Follow IEP and 504 Plans
Seating arrangement and visual aides
Buddy system
Enrichments:
Find additional information from a website and copy and paste to a widget
Find photos to accompany the Keynote/PowerPoint presentation
Time: 10 to 12 sessions; 45 minutes once a cycle
Name/Date Curriculum Completed: Greenawald/Hovis/Klinedinst/Rice, August 2011