Shrewsbury Borough School District
Technology Curriculum Guide
2016

Unit 1 Overview
Unit Title: **Computer Parts & Terms/Jigzone**
Marking Period: **1**
Grade Level: Second Grade
Recommended Pacing: One Class
Unit Summary: - Show an understanding of common computer terms and parts.   - Review how to get on the internet.   - Type in a website correctly in the URL box.   - Navigate through a website.   - Manipulate puzzle pieces to complete a jigsaw puzzle.
NJCCSS: **8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.** **8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.** **8.1.2.A.1:** Identify the basic features of a digital device and explain its purpose. **8.1.2.A.3:** Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each. **8.1.2.A.4:** Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). **8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming:**

Shrewsbury Borough School District
Technology Curriculum Guide
2016

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

8.2.2.A.2: Describe how designed products and systems are useful at school, home and work.

8.2.2.A.3: Identify a system and the components that work together to accomplish its purpose.

8.2.2.B.1: Identify how technology impacts or improves life.

8.2.2.B.3: Identify products or systems that are designed to meet human needs.

Unit Essential Questions:	Unit Enduring Understandings:

Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*
- Can the student double click, manipulate the mouse, and click and drag? - Does the student have an understanding of computer parts and terms? - In a world of constant change, what skills should we learn? - Can the student navigate through a website?	- Students will review computer parts and terms by completing SMART Board tasks as a class - Discuss difference between URL box and Google box. - Students will open Safari and type in the correct web address: www.jigzone.com. - They will pick a puzzle to complete from numerous categories. - Learn how to change the puzzle cut to 12, 20, or 48 pieces. - Complete puzzles using mousing skills. - Review how to use the back arrow on the internet.

Evidence of Learning
Formative Assessments: ● Teacher Observation ● Project Based Assessment ● Classroom Participation
Equipment Needed: ● SMART Board ● Internet Connection ● Website strips

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 2 Overview
Unit Title: **Internet Safety** Marking Period: **1**
Grade Level: Second Grade
Recommended Pacing: One Class

Unit Summary:

- Demonstrate ability to open specific applications.
- Understand the positive and negatives to the internet.
- Demonstrate ability to know how to surf the web safely.
- Know the importance of having a parent/guardian know what sites they are going to.
- Watch a video clip from the National Center for Missing and Exploited Children.

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.
8.1.2.A.3: Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each.
8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
8.1.5.D.3: Demonstrate an understanding of the need to practice cyber safety, cyber security, and cyber ethics when using technologies and social media.
8.1.2.E.1: Use digital tools and online resources to explore a problem or issue.
8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming:
All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.
8.2.2.A.2: Describe how designed products and systems are useful at school, home and work.
8.2.2.A.3: Identify a system and the components that work together to accomplish its purpose.
8.2.2.B.1: Identify how technology impacts or improves life.
8.2.2.B.3: Identify products or systems that are designed to meet human needs.

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	**Unit Learning Targets** *Students will do…*
● In a world of constant change, how should students stay proactive in the fight against internet crimes? ● Why is it important to teach internet safety and about cyberbullying to the students?	● Students will have a group discussion with teacher about internet safety and cyberbulling. ● They will understand what to do if they feel unsafe using the internet and what to do if someone bullies them through an electronic device. ● Review how the internet is a way people use to get information about them. ● They will watch a video clip from NetSmartz about internet safety. ● www.netsmartz.org/NetSmartzKids/BeSaferOnline ● Students can discuss what they like to do online and teacher will explain how to make sure they are being safe. ● Questions will be answered about the subject.

Evidence of Learning

Formative Assessments:
    ● Teacher Observation
    ● Project Based Assessment
    ● Classroom Participation

Equipment Needed:
    ● Internet Connection
    ● SMART Board
    ● Website

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 3 Overview
Unit Title: **Graphic Organizer**
Marking Period: **1**
Grade Level: Second Grade
Recommended Pacing: Two Classes
Unit Summary: ● Demonstrate ability to create a graphic organizer. ● Demonstrate ability to open activities within a program. ● Understand how to change size of paintbrush. ● Demonstrate ability of mousing skills. ● Learn how to make numerous text boxes on a single page.
NJCCSS: **8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to**

solve problems individually and collaboratively and to create and communicate knowledge.

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.A.2: Create a document using a word processing application.

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*

- In a world of constant change, what skills should we learn? - Can the student take a picture using the webcam? - Can the student navigate using numerous text boxes?	- Students will open Pixie document where they will take a picture of themselves with the webcam. - They will select a background using the fill tool. - Review how to create numerous text boxes. - They will type name, favorite food, favorite thing to do, and their age. - Select a paintbrush size and color. They are to draw a 3-4 touching lines from their face to their text boxes. - Students can change color of the fonts. - They must change the color and style of each letter in their name.

Evidence of Learning
Formative Assessments: ● Teacher Observation ● Project Based Assessment ● Classroom Participation
Equipment Needed: ● Pixie ● WebCam ● Pre-Made paper of what is expected in each text box

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 4 Overview

Shrewsbury Borough School District
Technology Curriculum Guide
2016

Unit Title: **Weather Chart**

Marking Period: **1**

Grade Level: Second Grade

Recommended Pacing: One Class: With Partners

Unit Summary:

- Cooperatively work with a partner to complete a task.
- Demonstrate ability to open a pre-made activity within a program.
- Understand how to navigate through a website.
- Learn how to minimize and navigate between two windows.
- Learn how to copy and paste pictures and text.

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.3: Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each.

8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	**Unit Learning Targets** *Students will do…*
● In a world of constant change, what skills should we learn? ● Can the student navigate through a website? ● How do I choose which technological tools to use and when it is appropriate to use them?	● Students will go to Pixie and open the pre-made activity to open their weather chart. ● Students will open Safari and type in www.weather.com. ● They will navigate through the website to get specific information about current and future weather. ● Learn how to minimize open windows and retrieve them. ● Learn how to navigate to two open windows. ● Learn how to copy and paste both text and images in Pixie. ● Learn different ways to copy and paste.

Evidence of Learning

Formative Assessments:
    ● Teacher Observation
    ● Skilled Based Assessment
    ● Classroom Participation

Equipment Needed:
    ● Safari
    ● Internet Connection
    ● Website Strip With Address

- Pixie

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 5 Overview
Unit Title: **Coding: Course 1- Lessons 6-8**
Marking Period: **2**
Grade Level: Second Grade
Recommended Pacing: 3 Classes (Continuous Program)
Unit Summary:

- Review coding terminology.
- Get on the internet using a specific website.
- Navigate through a website using a username and a passcode picture.
- Navigate thought the website to each lesson.
- Lesson 6: Real-Life Algorithms
- Lesson 7: Bee: Sequence
- Lesson 8: Artist: Sequence

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.
8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.3: Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each.
8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming:
All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.
8.2.2.A.1: Define products produced as a result of technology or of nature.
8.2.2.A.2: Describe how designed products and systems are useful at school, home and work.
8.2.2.A.3: Identify a system and the components that work together to accomplish its purpose.
8.2.2.B.1: Identify how technology impacts or improves life.
8.2.2.B.3: Identify products or systems that are designed to meet human needs.
8.2.2.B.4: Identify how the ways people live and work has changed because of technology.
8.2.2.E.1: List and demonstrate the steps to an everyday task.
8.2.2.E.2: Demonstrate an understanding of how a computer takes input through a series of written commands and then interprets and displays information as output.
8.2.2.E.3: Create algorithms (a sets of instructions) using a pre-defined set of commands (e.g., to move a student or a character through a maze).
8.2.2.E.4: Debug an algorithm (i.e., correct an error).
8.2.2.E.5: Use appropriate terms in conversation (e.g., basic vocabulary words: input, output, the operating system, debug, and algorithm).

Unit Essential Questions:	Unit Enduring Understandings:

Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*
- In a world of constant change, what skills should we learn? - Can the student navigate through a website? - Can the student click and drag? - Will the students be able to express movement as a series of commands? - Can the students convert a whole number to the equivalent quantity of individual blocks.	- Students will open Safari and type in the correct web address. - They will select their name and passcode picture and continue through the lessons. - Use mouse to input information into a computer. - Represent an algorithm as a computer program. - Order movement commands as sequential steps in a program. - Predict where a program will fail: Debug - Modify an existing program to solve errors - Identify an algorithm that is unsuccessful when the steps are out of order. - Arrange directions to reach predetermined goal. - Predict where character will land, given a list of steps.

Evidence of Learning
Formative Assessments: ● Teacher Observation ● Skilled Based Assessment ● Lessons Completed: Teacher can see student progress through their specific accounts ● Classroom Participation
Equipment Needed: ● Safari ● Internet Connection ● Headphones

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Shrewsbury Borough School District
Technology Curriculum Guide
2016

Unit 6 Overview
Unit Title: **Calendar in iPhoto**
Marking Period: **2**
Grade Level: Second Grade
Recommended Pacing: Five Classes
Unit Summary: ● Learn how to create a picture calendar using iPhoto. ● Learn how to input text into the calendar. ● Learn how to move, rotate, crop and zoom pictures in their calendars.
NJCCSS: **8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.** **8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.** **8.1.2.A.1:** Identify the basic features of a digital device and explain its purpose. **8.1.2.A.2:** Create a document using a word processing application. 8.1.2.B.1: Illustrate and communicate original ideas and stories using multiple digital tools and resources.

8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming:
All students will develop an understanding of the nature and impact of technology, engineering, technological design,
computational thinking and the designed world as they relate to the individual, global society, and the environment.
8.2.2.B.1: Identify how technology impacts or improves life.
8.2.2.B.4: Identify how the ways people live and work has changed because of technology.

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*

● How do I choose which technological tools to use and when it is appropriate to use them? ● How can digital tools be used for creating original and innovative works, ideas, and solutions?	● Students will bring in a CD or flash drive of 25-40 photos of themselves, family, and friends. ● Once we upload them to iPhoto they will create their own album. ● They will fill the calendar with pictures, learning how to change the layout if needed. ● They will type in holidays in correct dates and then type in family birthdays. ● Students will use correct spacing and capitalization. ● Learn how to move, crop, rotate, and zoom pictures in their calendars. ● When finished we will print the calendars and we will bind them.

Evidence of Learning

Formative Assessments:
- Teacher Observation
- Project Based Assessment
- Classroom Participation

Equipment Needed:
- Flash drive of pictures from home
- Letters to the parents
- Holiday List
- Birthday lists
- iPhoto
- Colored Printer
- Binding Spines
- Binding Machine

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 7 Overview
Unit Title: **Thanksgiving Graph**
Marking Period: **2**
Grade Level: Second Grade
Recommended Pacing: Two Classes
Unit Summary: ● Demonstrate ability to open specific applications. ● Collect data using SMART Board. ● Demonstrate ability to put data into Microsoft Excel. ● Demonstrate ability to highlight data and create a chart. ● Change the colors on the chart.
NJCCSS: **8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.** **8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.**

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.2: Create a document using a word processing application.
8.1.2.A.5: Enter information into a spreadsheet and sort the information.

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	**Unit Learning Targets** *Students will do…*
- In a world of constant change, what skills should we learn? - How do I choose which technological tools to use and when it is appropriate to use them?	- Students will collect data using the SMART Board on their favorite food to eat on Thanksgiving with boy and girl data separate. - Students will review how to properly put data into the Excel spreadsheet. - They will review the terminology used in Excel. - Then students will review how to properly highlight correct cells. - They will go to Insert-Chart and select a bar chart. - Students will also review how to change the colors of the data results in the chart.

Evidence of Learning

Formative Assessments:
    ● Teacher Observation
    ● Project Based Assessment
    ● Classroom Participation

Equipment Needed:
    ● Microsoft Excel
    ● SMART Board

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 8 Overview
Unit Title: **Keyboarding** Marking Period: **2-4**
Grade Level: Second Grade
Recommended Pacing: Continuous

Unit Summary:
    ● Gain knowledge of the keyboard.
    ● Learn the "home row" keys.

- Demonstrate ability to sit correctly and position fingers on the keyboard.
- Understand how to navigate through a website.
- Familiarize self with the keyboard without looking.
- Using the programs: Typing Instructor & Typing Club
- Navigate through a website or program.

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.3: Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each.
8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

Unit Essential Questions:	Unit Enduring Understandings:

Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*
- In a world of constant change, what skills should we learn? - Can the student navigate through a website? - Can students navigate through a program?	- Learn how to sit and hold hands correctly when typing. - Students will practice putting their hands on the home row. - Students will type a series of letters and punctuation on command. - They will then go to Typing Club Keyboarding (web based) and complete specific levels till they are comfortable and familiar with the keyboard. - Students will also have accounts on Typing Instructor where they can complete specific levels at their own pace.

Evidence of Learning
Formative Assessments: ● Teacher Observation ● Skilled Based Assessment through the Typing Club program ● Classroom Participation
Equipment Needed: ● Safari ● Internet Connection ● Typing Club username and password ● Typing Instructor Keyboarding Software ● Headphones

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 9 Overview

Unit Title: **Coding: ArtBot**

Marking Period: **3**

Grade Level: Second Grade

Recommended Pacing: One Class

Unit Summary:
- Learn how to get on the internet using a specific website.
- Type in a website correctly in the URL box.
- Navigate thought the website to each lesson.

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.
8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.3: Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each.
8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming:

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

8.2.2.A.1: Define products produced as a result of technology or of nature.

8.2.2.A.2: Describe how designed products and systems are useful at school, home and work.

8.2.2.A.3: Identify a system and the components that work together to accomplish its purpose.

8.2.2.B.1: Identify how technology impacts or improves life.

8.2.2.B.4: Identify how the ways people live and work has changed because of technology.

8.2.2.E.1: List and demonstrate the steps to an everyday task.

8.2.2.E.2: Demonstrate an understanding of how a computer takes input through a series of written commands and then interprets and displays information as output.

8.2.2.E.3: Create algorithms (a sets of instructions) using a pre-defined set of commands (e.g., to move a student or a character through a maze).

8.2.2.E.5: Use appropriate terms in conversation (e.g., basic vocabulary words: input, output, the operating system, debug, and algorithm).

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*

- In a world of constant change, what skills should we learn? - Can the student navigate through a website? - Can the student click and drag?	- Students will open Safari and type in the correct web address. http://www.tvokids.com/games/artbotaction - Students will continue through the lessons. - Program Artbot to follow students commands to reveal the hiding art. - Arrange directions to reach predetermined goal.

Evidence of Learning
Formative Assessments: - Teacher Observation   - Skilled Based Assessment   - Lessons Completed   - Classroom Participation

Equipment Needed:
- Safari with Adobe Flash
- Internet Connection
- Website Strip
- Headphones

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 10 Overview
Unit Title: **Leprechaun Movies**
Marking Period: **3**
Grade Level: Second Grade
Recommended Pacing: Five Classes

Unit Summary:

- Understand when and how to use specific keys to properly format a Word document.
- Create a script for movie.
- Create drawings to go along with sentences.
- Record voice to create movie.

NJCCSS:

8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.A.2: Create a document using a word processing application.

8.1.2.A.3: Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each.

8.1.2.B.1: Illustrate and communicate original ideas and stories using multiple digital tools and resources.

8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming:

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

8.2.2.B.1: Identify how technology impacts or improves life.

8.2.2.B.4: Identify how the ways people live and work has changed because of technology.

Unit Essential Questions:	Unit Enduring Understandings:

Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*
● How can digital tools be used for creating original and innovative works, ideas, and solutions?	● Students will open Word and type a script on what kind of leprechaun they are, where they live and what they like to do. ● Remind students about how to use correct spacing, capital letters, and formatting. ● Change font style, color and size. ● Review how to highlight. ● Create a picture that goes along with each sentences using webcam for their faces. ● Record their voice over their pictures to create a class movie.

Evidence of Learning
Formative Assessments: ● Teacher Observation ● Project Based Assessment ● Classroom Participation
Equipment Needed: ● Microsoft Word ● Pre-made sentence template to follow ● WebCam ● iMovie ● Headphones ● Microphone ● Pixie

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 11 Overview
Unit Title: **Animal Eats**
Marking Period: **3**
Grade Level: Second Grade
Recommended Pacing: Two Class
Unit Summary: - Demonstrate ability to create a text box.   - Understand how to minimize and navigate between two windows.   - Type sentences on specific topic.   - Create drawing to go along with sentences.

- Take picture of self using the webcam.
- Understand how to navigate through a website.

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.
8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.2: Create a document using a word processing application.
8.1.2.A.3: Compare the common uses of at least two different digital applications and identify the advantages/disadvantages of using each.
8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*

● How do I choose which technological tools to use and when it is appropriate to use them?	● Students will open Word and type sentences on what animal they are and what they like to eat. ● They will go on a specific website to find this information. ● Remind students about how to use correct spacing, capital letters, and formatting. ● Change font style, color and size. ● Create a picture of the animal they were given and use webcam for their faces.

Evidence of Learning

Formative Assessments:
- Teacher Observation
- Project Based Assessment
- Classroom Participation

Equipment Needed:
- WebCam
- Pixie
- Colored Printer
- Animal Cards
- Safari (internet connection)

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 10 Overview
Unit Title: **Tangrams**
Marking Period: **3**
Grade Level: First Grade
Recommended Pacing: One Class
Unit Summary: ● Gain knowledge of geometry by completing tangrams. ● Use problem-solving skills to complete the task. ● Gain knowledge of certain technology terms. ● Review how to get on the internet. ● Type in a website correctly in the URL box. ● Navigate through a website. ● Mousing skills to move, rotate, and flip pieces.
NJCCSS: **8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.**

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.A.3: Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each.

8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*

● In a world of constant change, what skills should we learn? ● Can the student navigate through a website?	● Discuss difference between URL box and Google box. ● Students will open Safari and type in the correct web address. http://www.primarygames.com/ Then go to Math, page 4 ● They will complete levels to try to fit each tangram by rotating, flipping, and moving pieces given. ● Review how to quit out of programs. ● They will use their problem solving skills to complete these geometry challenges.

Evidence of Learning

Formative Assessments:
- Teacher Observation
- Skilled Based Assessment
- Classroom Participation

Equipment Needed:
- Safari
- Internet Connection
- Website Strip With Address

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 11 Overview
Unit Title: **Math Activities: Time, Weight, & Measurement**

Marking Period: **3**

Grade Level: First Grade

Recommended Pacing: One Class

Unit Summary:
- Demonstrate ability to open specific applications.
- Demonstrate ability to open activities within a program.
- Understand how to use digital ruler to help with measurement.
- Demonstrate ability of mousing skills.
- Show knowledge of weight and time.

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.A.2: Create a document using a word processing application.

Unit Essential Questions:	Unit Enduring Understandings:

Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*
● In a world of constant change, what skills should we learn? ● How do I choose which technological tools to use and when it is appropriate to use them?	● Students will open pre-made Pixie math activities. ● Weight: Students will use paintbrush tool to circle which one weighs more. ● Measurement: Students will use digital ruler to label the measurement in inches of specific items. ● Time: Students will click and drag the correct time to each of the clocks given. ● Students will use text boxes to type their names.

Evidence of Learning
Formative Assessments: ● Teacher Observation ● Project Based Assessment ● Classroom Participation
Equipment Needed: ● Pixie ● Pre-Made Math Activities

Technology Curriculum Guide
2016

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 12 Overview
Unit Title: **Cut & Paste Opposites** Marking Period: **4**
Grade Level: First Grade
Recommended Pacing: One Class
Unit Summary:

- Demonstrate ability to open specific applications.
- Demonstrate ability to cut and paste words in correct text boxes using the Edit function.
- Demonstrate ability of mousing skills.

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.A.2: Create a document using a word processing application.

Unit Essential Questions:	Unit Enduring Understandings:

Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*
● In a world of constant change, what skills should we learn? ● How do I choose which technological tools to use and when it is appropriate to use them?	● Students will open pre-made Word cut & paste activity. ● Students will learn how to properly highlight one word (not a whole text box) and using the Edit function: how to cut. ● Then students will place the cursor where they want to paste the word. ● Then they will paste the word using the Edit command. ● Students will also learn the Edit-Undo button for any errors they make instead of delete key.

Evidence of Learning
Formative Assessments: ● Teacher Observation ● Project Based Assessment ● Classroom Participation
Equipment Needed: ● Microsoft Word ● Pre-Made Cut & Paste Activity

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 13 Overview
Unit Title: **Colors Graph**
Marking Period: **4**
Grade Level: First Grade
Recommended Pacing: Two Classes
Unit Summary: ● Demonstrate ability to open specific applications. ● Collect data using SMART Board. ● Demonstrate ability to put data into Microsoft Excel. ● Demonstrate ability to highlight data and create a chart. ● Change the colors on the chart.
NJCCSS: **8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.**

Shrewsbury Borough School District
Technology Curriculum Guide
2016

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.2: Create a document using a word processing application.
8.1.2.A.5: Enter information into a spreadsheet and sort the information.

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	**Unit Learning Targets** *Students will do…*
- In a world of constant change, what skills should we learn? - How do I choose which technological tools to use and when it is appropriate to use them?	- Students will collect data using the SMART Board. - Students will learn how to properly put data into the Excel spreadsheet. - They will learn the terminology used in Excel. - Then students will learn how to properly highlight correct cells. - They will go to Insert-Chart and select a pie chart. - Students will also learn how to change the colors of the data results in the chart.

Evidence of Learning

Formative Assessments:
    ● Teacher Observation
    ● Project Based Assessment
    ● Classroom Participation

Equipment Needed:
    ● Microsoft Excel
    ● SMART Board

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 14 Overview
Unit Title: **Ambition Poster**
Marking Period: **4**
Grade Level: First Grade
Recommended Pacing: Two Classes
Unit Summary:

- Demonstrate ability to open specific applications.
- Understand how to change size of paintbrush to fit certain size restrictions.
- Demonstrate ability of mousing skills.
- Review how to make a text box and type a full sentence.
- Demonstrate ability to use the Shift key, space Bar, and Delete Key.
- Gain knowledge of the keyboard.
- Write a sentence or two of what they want to be when they grow up and why.
- Review how to take a picture using webcam in a circle or oval.

NJCCSS:
8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.2: Create a document using a word processing application.

Unit Essential Questions:	Unit Enduring Understandings:

Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*
● In a world of constant change, what skills should we learn? ● Can the student take a picture using the webcam?	● Students will open Pixie. ● Type a sentence or two of what they want to be when they grow up and why. ● Remind students about how to use correct spacing, capital letters, and formatting. ● Change font style, color and size. ● Review how to highlight. ● They will take a picture of themselves in a circle for their body. ● Review how to change size of paintbrush and how to insert stickers. ● Draw picture to represent their sentences.

Evidence of Learning
Formative Assessments: ● Teacher Observation ● Project Based Assessment ● Classroom Participation
Equipment Needed: ● Pixie ● Colored Printer ● Sentence Strip "As I grow up, I will work towards becoming a _____ because …" ● Webcam

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.

Unit 15 Overview
Unit Title: **Summer Graph**
Marking Period: **4**
Grade Level: First Grade
Recommended Pacing: Two Classes
Unit Summary: ● Demonstrate ability to open specific applications. ● Collect data using SMART Board. ● Demonstrate ability to put data into Microsoft Excel. ● Demonstrate ability to highlight data and create a chart. ● Change the colors on the chart.
NJCCSS: **8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to**

solve problems individually and collaboratively and to create and communicate knowledge.

8.1.2.A Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.A.2: Create a document using a word processing application.
8.1.2.A.5: Enter information into a spreadsheet and sort the information.

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets *Students will know…*	Unit Learning Targets *Students will do…*

● In a world of constant change, what skills should we learn? ● How do I choose which technological tools to use and when it is appropriate to use them?	● Students will collect data using the SMART Board. ● Students will review how to properly put data into the Excel spreadsheet. ● They will review the terminology used in Excel. ● Then students will review how to properly highlight correct cells. ● They will go to Insert-Chart and select a pie chart. ● Students will also review how to change the colors of the data results in the chart. ● Students will learn how to use the gradient option of the color choices.

Evidence of Learning

Formative Assessments:
● Teacher Observation
● Project Based Assessment
● Classroom Participation

Equipment Needed:
● Microsoft Excel
● SMART Board

Teacher Resources:
Resources: All resources are in on teacher computer/grade level folders.