

Shrewsbury Borough School District  
*Technology* Curriculum Guide  
2016

Unit 1 Overview

Unit Title: **Introduction to 8<sup>th</sup> Grade Tech & Internet Safety/ Cyberbullying**  
Each Marking Period

Grade Level: Eighth Grade

Recommended Pacing: One Class

Unit Summary:

- Understand the positive and negatives to the internet.
- Modeling appropriate online behaviors related to cyber safety, cyber security, and cyber ethics.
- Understand the signs to be concerned with when online.
- Review definition of Cyberbullying.
- Watch various video clips about cyberbullying and student safety dealing with internet crimes.

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

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.**

**A. Technology Operations and Concepts:** *Students demonstrate a sound understanding of technology concepts, systems and operations.*

**8.1.8.A.1:** Demonstrate knowledge of a real world problem using digital tools.

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

**8.1.8.D.1:** Understand and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media.

**8.1.8.D.2:** Demonstrate the application of appropriate citations to digital content.

**8.1.8.D.3:** Demonstrate an understanding of fair use and Creative Commons to intellectual property.

**8.1.8.D.4:** Assess the credibility and accuracy of digital content.

**8.1.8.D.5:** Understand appropriate uses for social media and the negative consequences of misuse.

**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.**

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

**B. Technology and Society:** *Knowledge and understanding of human, cultural and societal values are fundamental when designing technological systems and products in the global society.*

**8.2.8.B.2:** Identify the desired and undesired consequences from the use of a product or system.

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets <i>Students will know...</i>	Unit Learning Targets <i>Students will do...</i>

Shrewsbury Borough School District  
*Technology* Curriculum Guide  
2016

<ul style="list-style-type: none"><li>● In a world of constant change, how should students stay proactive in the fight against internet crimes?</li><li>● Why is it important to teach about cyberbullying to the students?</li></ul>	<ul style="list-style-type: none"><li>● Students will have a group discussion with teacher about internet safety and cyberbullying.</li><li>● More in-depth talk about Cyberbullying and how it can affect others.</li><li>● Students can discuss what they like to do online and teacher will explain how to make sure they are being safe.</li><li>● Discuss fair use and Creative Commons guidelines.</li><li>● Questions will be answered about the subject.</li><li>● Watch various video clips about Cyberbullying, real world problems, and internet crimes dealing with children and adults.</li></ul>
---	--

Evidence of Learning
Formative Assessments:

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

- Teacher Observation
- Classroom Participation/Acknowledgement

Equipment Needed:

- Internet Connection
- SMART Board
- State Police's *Internet Safety Initiative* Notes
- Website- NSTeens on Netsmartz.org  
(Real Life Stories: "Two Kinds of Stupid": inappropriate pictures)
- Website- NSTeens on Netsmartz.org  
(Real Life Stories: "Amy's Choice": meeting offline)
- Website- NSTeens on Netsmartz.org  
(Real Life Stories: "Survivor Diaries": online victimization)
- Website- NSTeens on Netsmartz.org  
(Real Life Stories: "You Can't Take It Back": participation websites)

Teacher Resources:

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

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

Unit 2 Overview

Unit Title: **Current Events Video Montage**

Each Marking Period

Grade Level: Eighth Grade

Recommended Pacing: Fifteen Classes

Unit Summary:

- Demonstrate ability to use various applications previously learned to create slides for specific reasons to be used in their movie.
- Demonstrate ability to export files as JPEGs.
- Demonstrate ability to create a movie with flow and consistency.
- Demonstrate ability to gather data, graph, and change to a jpeg to put a graph in the movie.
- Perform video interviews outside of the lab about a chosen topic to enhance movie.
- Insert music in movie, after either creating or retrieving music.

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

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.**

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

**8.1.8.A.1:** Demonstrate knowledge of a real world problem using digital tools.

**8.1.8.A.2:** Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability.

**8.1.8.A.3:** Use and/or develop a simulation that provides an environment to solve a real world problem or theory.

**8.1.8.A.4:** Use a graphic organizer to organize information about problem or issue.

**B. Creativity and Innovation: *Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.***

**8.1.8.B.1:** Synthesize and publish information about a local or global issue or event.

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

**8.1.8.D.1:** Understand and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media.

**8.1.8.D.2:** Demonstrate the application of appropriate citations to digital content.

**8.1.8.D.3:** Demonstrate an understanding of fair use and Creative Commons to intellectual property.

**8.1.8.D.4:** Assess the credibility and accuracy of digital content.

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
 2016

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets <i>Students will know...</i>	Unit Learning Targets <i>Students will do...</i>
<ul style="list-style-type: none"> <li>● How can digital tools be used for creating original and innovative works, ideas, and solutions?</li> <li>● In a world of constant change, what skills should we learn?</li> <li>● How can I transfer what I know to new technological situations/experiences?</li> </ul>	<ul style="list-style-type: none"> <li>● We will go over what is expected for them to do for this project, since it has many parts.</li> <li>● Partners will be selected.</li> <li>● I will show them examples of previous class projects to critique both positives and how they could have made better.</li> <li>● The movie must have a creative introduction and conclusion.</li> <li>● The topics they must include are: Major Events, Local Events, Government News, Sports Information, Fashion, Celebrity News, Popular TV Shows, Latest Tech Tools, and any Controversial Topics.</li> <li>● Teamwork must be shown, how both students contribute and are respected with fair share of the work.</li> </ul>



Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

	<ul style="list-style-type: none"><li>● Team must have a clear concept of what they are trying to achieve.</li><li>● Write script for each section of the movie. The script should be clear and descriptive to show understanding of each concept.</li><li>● Research on all aspects must be present.</li><li>● Transitions and the Ken Burns effect must be used. Slide timings must match the correct slides.</li><li>● Graph must be completed in Excel and reported on in the movie.</li><li>● Interview must be videoed and imported to video.</li><li>● Music must be present somewhere in the movie, either created in Garageband, or used from the jingle section or iTunes.</li></ul>
--	--

Evidence of Learning	
<p>Formative Assessments:</p> <ul style="list-style-type: none"><li>● Teacher Observation</li><li>● Project Based Assessment</li><li>● Class Work Grade/ Use of Class Time</li><li>● Teamwork Observation</li></ul>	
<p>Equipment Needed:</p> <ul style="list-style-type: none"><li>● Microsoft Word</li><li>● Microsoft Excel</li><li>● Flip Video Cameras</li><li>● Pencils/Paper</li></ul>	

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

- iMovie
- Photobooth
- Print Shop
- Imageblender
- Pixie
- Internet Connection
- Headphones
- Microphones
- Garageband
- iTunes

Unit 4 Overview

Unit Title: **Coding: Course 2 & Code Studio: Hour of Code**  
Each Marking Period

Grade Level: Eighth Grade

Recommended Pacing: \*Continuous Program

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

Unit Summary:

- Go to code.org account using a username and a passcode.
- Navigate through the website to each lesson in Course 2.
- Navigate through Code Studio: Hour of Code.

NJCCSS:

**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.**

***C. Design: The design process is a systematic approach to solving problems.***

**8.2.8.C.2:** Explain the need for optimization in a design process.

**8.2.8.C.4:** Identify the steps in the design process that would be used to solve a designated problem.

**8.2.8.C.6:** Collaborate to examine a malfunctioning system and identify the step-by-step process used to troubleshoot, evaluate and test options to repair the product, presenting the better solution.

***E. Computational Thinking: Programming: Computational thinking builds and enhances problem solving, allowing students to move beyond using knowledge to creating knowledge.***

**8.2.8.E.1:** Identify ways computers are used that have had an impact across the range of human activity and within different careers where they are used.

**8.2.8.E.2:** Demonstrate an understanding of the relationship between hardware and software.

**8.2.8.E.3:** Develop an algorithm to solve an assigned problem using a specified set of commands and use peer review to critique the solution.

**8.2.8.E.4:** Use appropriate terms in conversation (e.g., programming, language, data, RAM, ROM, Boolean logic terms).

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
 2016

Unit Essential Questions:	Unit Enduring Understandings:
Unit Learning Targets <i>Students will know...</i>	Unit Learning Targets <i>Students will do...</i>
<ul style="list-style-type: none"> <li>● In a world of constant change, what skills should we learn?</li> <li>● Can the students communicate ideas using codes and symbols?</li> <li>● Can the student express movement as a series of commands?</li> <li>● Can the students create a program to complete an image using sequential steps?</li> </ul>	<ul style="list-style-type: none"> <li>● Students will sign into their code.org account.</li> <li>● Create a program to draw a shape using sequential steps.</li> <li>● Compare and contrast squares and rectangles by their number of sides and side lengths.</li> <li>● Represent an algorithm as a computer program.</li> <li>● Convert a series of multiple actions into a single loop.</li> <li>● Employ a combination of sequential and looped commands to reach the end of a maze.</li> <li>● Create a program that draws complex shapes by repeating simple sequences.</li> <li>● Compose two-dimensional shapes to create a composite shape.</li> <li>● Convert a series of multiple actions into a single loop.</li> </ul>

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

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
- Code.org user names and passwords

Teacher Resources:

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