

Shrewsbury Borough School District  
*Technology Curriculum Guide*  
2016

Unit 1 Overview

Unit Title: **Introduction to 6<sup>th</sup> Grade Tech & Internet Safety/ Cyberbullying**  
Each Marking Period

Grade Level: Sixth Grade

Recommended Pacing: One Class

Unit Summary:

- Understand the positive and negatives to the internet.
- Demonstrate ability to know how to surf the web safely.
- Understand the signs to be concerned with when online.
- Review definition of Cyberbullying.
- Watch a video clip from [Netsmartz.org](http://Netsmartz.org).

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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.**

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**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<br><i>Students will know...</i> | Unit Learning Targets<br><i>Students will do...</i> |

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- In a world of constant change, how should students stay proactive in the fight against internet crimes?
- Why is it important to teach about cyberbullying to the students?

- Students will have a group discussion with teacher about internet safety and cyberbullying.
- Review how the internet is a way people use to get information about them.
- They understand the definition of cyberbullying.
- 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.
- Watch video clip about “Target Kids Online” at <http://www.nsteens.org/Videos/TrackingTeresa>

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Evidence of Learning

Formative Assessments:

- Teacher Observation
- Classroom Participation/Acknowledgement

Equipment Needed:

- Internet Connection
- SMART Board
- Website- NSTeens on Netsmartz.org

Teacher Resources:

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

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| Unit 2 Overview   |
|---|
| Unit Title: <b>Pop Art: Andy Warhol</b><br>Each Marking Period  |
| Grade Level: Sixth Grade  |
| Recommended Pacing: Three Classes   |
| Unit Summary: <ul style="list-style-type: none"><li>● Demonstrate ability to find large images full size from internet.</li><li>● Demonstrate ability to change image title.</li><li>● Demonstrate ability to change size of image within the program, Imageblender.</li><li>● Compose an Andy Warhol of a pop art icon changing the hue and saturation of each layer.</li><li>● Watch a short video of “Pop Art” from Brain Pop.</li></ul> |
| NJCCSS:<br><b><u>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.</u></b>  |

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**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.**

**8.1.8.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.

**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.

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

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| <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>● Students will watch a Brain Pop video about “Pop Art”.</li><li>● Students will research and pick famous icons known by their generation.</li><li>● Go on the internet and find full size images of their icon/symbol.</li><li>● They will review how to change the name of images in their folder.</li><li>● Create an Andy Warhol of their icon in Imageblender, by changing dimensions, using layers, and playing layers in a 2x2 montage of the icon on the canvas.</li><li>● Students will change the Hue and Saturation of the colors to come up with a bright and different color scheme.</li><li>● Students have the opportunity to change the texture of the picture also.</li></ul> |
|--|--|

Evidence of Learning

Formative Assessments:



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- Teacher Observation
- Project Based Assessment
- Class Work Grade/ Use of Class Time

Equipment Needed:

- Imageblender
- Safari (Internet Connection)
- Directions Worksheet for students
- Colored Printer

Teacher Resources:

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

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Unit 3 Overview

Unit Title: **Andy Warhol Yourself**  
Each Marking Period

Grade Level: Sixth Grade

Recommended Pacing: Two Classes

Unit Summary:

- Students will take pictures of themselves in Photobooth.
- Demonstrate ability to change image title.
- Compose an Andy Warhol of a pop art icon changing the hue and saturation of each layer.

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.**

**8.1.8.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.

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|  |   |
|--|---|
| Unit Essential Questions:  | Unit Enduring Understandings:   |
| Unit Learning Targets<br><i>Students will know...</i>  | Unit Learning Targets<br><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> </ul> | <ul style="list-style-type: none"> <li>● Students will take a regular picture of themselves in Photobooth.</li> <li>● Then students will take a picture of themselves using effects.</li> <li>● They will review how to change the name of images in their folder.</li> <li>● Create an Andy Warhol of their pictures in Imageblender.</li> <li>● Students will change the Hue and Saturation of the colors to come up with a bright and different color scheme.</li> <li>● Students have the opportunity to change the texture of the picture also.</li> </ul> |

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Evidence of Learning

Formative Assessments:

- Teacher Observation
- Project Based Assessment
- Class Work Grade/ Use of Class Time

Equipment Needed:

- Internet Connection
- Imageblender
- Direction Worksheet for students
- Colored Printer

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

| Unit 4 Overview   |
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| Unit Title: <b>Coding: Course 2</b><br>Each Marking Period  |
| Grade Level: Sixth Grade  |
| Recommended Pacing: *Continuous Program   |
| Unit Summary: <ul style="list-style-type: none"><li>• Go to code.org account using a username and a passcode</li><li>• Navigate through the website to each lesson in Course 2.</li></ul> |

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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.**

- 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).

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

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| <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> |
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Evidence of Learning

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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.

Unit 5 Overview



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| Unit Title: <b>Collage of Fruit/ Vegetable Benefits</b><br>Each Marking Period  |
| Grade Level: Sixth Grade  |
| Recommended Pacing: Four Classes  |
| Unit Summary: <ul style="list-style-type: none"><li>● Students will learn how to add layers in Imageblender to create a collage format.</li><li>● Show ability to find images of specific subject on the internet.</li><li>● Research specific information for benefits of their fruit or vegetable.</li><li>● Show ability to layer and create a collage using both images and words.</li></ul>  |
| NJCCSS:<br><b><u>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.</u></b><br><b>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.</b><br><b>8.1.8.A.1:</b> Demonstrate knowledge of a real world problem using digital tools.<br><b>8.1.8.A.2:</b> 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.<br><b>D. Digital Citizenship: <i>Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.</i></b><br><b>8.1.8.D.1:</b> Understand and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media. |

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**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.

|  |   |
|--|---|
| Unit Essential Questions:  | Unit Enduring Understandings:   |
| Unit Learning Targets<br><i>Students will know...</i>  | Unit Learning Targets<br><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>● Students will select a fruit or vegetable they want to research.</li> <li>● They will fill out the answers to specific questions on the worksheet.</li> <li>● They will find images of their vegetable or fruit on the internet and put the pictures in their folders.</li> <li>● The students will then use the program, Imageblender to layer their images on a single canvas.</li> <li>● They will use effects and other aspects of the program to help type and be able to see their information they want to portray on the collage.</li> </ul> |

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Evidence of Learning

Formative Assessments:

- Teacher Observation
- Project Based Assessment
- Class Work Grade/ Use of Class Time

Equipment Needed:

- Benefits Question Worksheet
- Imageblender
- Internet Connection
- Pencil
- Colored Printer

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

| Unit 6 Overview  |
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| Unit Title: <b>Zodiac Graph</b><br>Each Marking Period   |
| Grade Level: Sixth Grade   |
| Recommended Pacing: One Class  |
| Unit Summary: <ul style="list-style-type: none"><li>● Students will research their zodiac sign and collect their class data on each student's sign.</li><li>● Demonstrate how to create a pie graph in Microsoft Excel.</li><li>● Be able to change color, put title, and add percents and labels.</li></ul> |

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NJCCSS:

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**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.**

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

**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.

Unit Essential Questions:

Unit Enduring Understandings:

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| Unit Learning Targets<br><i>Students will know...</i>  | Unit Learning Targets<br><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 has the use of digital tools improved opportunities for communication and collaboration?</li></ul> | <ul style="list-style-type: none"><li>● Students will research their zodiac sign.</li><li>● They will put a tally next to their sign on the SMART Board.</li><li>● Then the students will add the data and import it into Microsoft Excel.</li><li>● The students will complete a pie graph.</li><li>● Students will change the color of each one of the pieces of the pie.</li><li>● They will add a title and show percents on their pie graph and labels of each piece.</li></ul> |

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Evidence of Learning

Formative Assessments:

- Teacher Observation
- Project Based Assessment
- Class Work Grade/ Use of Class Time

Equipment Needed:

- Microsoft Excel
- Google Classroom/Google Accounts
- Internet Connection

Teacher Resources:

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

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Unit 7 Overview

Unit Title: **Zodiac Movie**

Each Marking Period

Grade Level: Sixth Grade

Recommended Pacing: Seven Classes

Unit Summary:

- Students will research about their zodiac characteristics and information that correlate to their sign.
- Demonstrate knowledge of iMovie and how to import clips, pictures, videos, ect.
- Create an interesting script including intro, body, conclusion on what they will say when they record their voice..
- Demonstrate ability to record their own voice in iMovie using voice over techniques.
- Create an interesting and creative movie.
- Be able to create pictures in other applications and export
- Demonstrate how to find legit information using the internet.
- Demonstrate ability to illustrate or create a picture and how to export Pixie/Imageblender files as JPEG to use in iMovie.
- Record their voice in iMovie.



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- Demonstrate ability how to use the Ken Burns Effect, transitions, and importing music in iMovie.
- Demonstrate how to change their clip timing to go along with voice.
- Create music in Garageband, share to iTunes, and import into iMovie.
- Demonstrate how to export a movie to a .mov Format.

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

**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.

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

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|   |   |
|---|---|
| <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>• Students will research their zodiac sign.</li><li>• They will write a script on how they are like and not like their zodiac characteristics.</li><li>• They will have to figure out a way to represent each characteristic.</li><li>• They can use any program/application and learn how to import them in to iMovie.</li><li>• They will record an introduction, body and conclusion.</li><li>• They will create music in Garageband and export song to iTunes and then to iMovie.</li><li>• Students will export movie when finished.</li><li>• Export the movie as a Quicktime file.</li></ul> |
|---|---|

| Evidence of Learning  |
|---|
| Formative Assessments: <ul style="list-style-type: none"><li>• Teacher Observation</li><li>• Project Based Assessment</li></ul> |

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- Class Work Grade/ Use of Class Time

Equipment Needed:

- Microsoft Word
- Pencils/Paper if needed
- iMovie
- Photobooth
- Imageblender
- Pixie
- Internet Connection
- Headphones
- Microphones
- iTunes
- Garageband

Teacher Resources:

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