# TOWNSHIP OF UNION PUBLIC SCHOOLS



# Grade 4 / Computer Literacy Applications

Adopted February 15, 2022

## Mission Statement

The mission of the Township of Union Public Schools is to build on the foundations of honesty, excellence, integrity, strong family, and community partnerships. We promote a supportive learning environment where every student is challenged, inspired, empowered, and respected as diverse learners. Through cultivation of students' intellectual curiosity, skills and knowledge, our students can achieve academically and socially, and contribute as responsible and productive citizens of our global community.

## Philosophy Statement

The Township of Union Public School District, as a societal agency, reflects democratic ideals and concepts through its educational practices. It is the belief of the Board of Education that a primary function of the Township of Union Public School System is to formulate a learning climate conducive to the needs of all students in general, providing therein for individual differences. The school operates as a partner with the home and community.

## Course Description

The purpose of the district computer education program is to educate students on how to use computers properly and for the use of research and education. It will also be used to teach students about appropriate computer etiquette and internet safety. Additionally, the program will be used to educate students on different software programs and how to make effective presentations at their appropriate grade levels. Furthermore, students will be exposed to computer programming and computer science using various resources.

Different software programs will be used for students to reach their fullest potential in Computer Literacy Applications class. They will learn internet safety and typing skills to prepare them for course work in grade levels in and beyond the elementary level. Students will be able to take what they have learned in Computer Literacy Applications education class and apply it to their grade level class work. There will be an emphasis on using Google, Google Classroom, Google Doc, & Google Slides. Students will be exposed to code.org and scratch to explore computer science and programming.

## Course Description

The purpose of the district computer education program is to educate students on how to use computers properly and for the use of research and education. It will also be used to teach students about appropriate computer etiquette and internet safety. Additionally, the program will be used to educate students on different software programs and how to make effective presentations at their appropriate grade levels. Furthermore, students will be exposed to computer programming and computer science using various resources.

Different software programs will be used for students to reach their fullest potential in Computer Literacy Applications class. They will learn internet safety and typing skills to prepare them for course work in grade levels in and beyond the elementary level. Students will be able to take what they have learned in Computer Literacy Applications education class and apply it to their grade level class work. There will be an emphasis on using Google, Google Classroom, Google Doc, & Google Slides. Students will be exposed to code.org and scratch to explore computer science and programming.

## Curriculum Units/Pacing Guide

| Unit # / Title | Number of Weeks |
|---|---|
| Unit 1: Computing Systems/Data Analysis/Technology Literacy | 5 weeks |
| Unit 2: Networks & The Internet/ Impacts of Computing/ Information & Media Literacy | 5 weeks |
| Unit 3: Engineering, Design/ Algorithms & Programming/ Critical Thinking & Problem Solving | 16 weeks |
| Unit 4: Interaction of Technology & Humans/ Nature of Technology/Digital Citizenship | 5 weeks |
| Unit 5: Effects of Technology on the Natural World/ Ethics & Culture/ Global & Cultural Awareness | 5 weeks |

# Unit Standards Overview

| Overview | Standards | Unit Skills Focus | Content-Specific Practices (when applicable) |
|---|---|---|---|
| **Unit 1**<br>**Computing Systems/ Data Analysis/Technology Literacy** | 8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies. | Demonstrate responsible behavior when safely operating technology equipment. | Essential Question:<br><br>How is technology useful? |
| | 8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems. | Understand terms and concepts related with applications | How can word processing software be used for a range of purposes? (i.e. Research Projects, Visual Aids, and Web Pages) |
| | 8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. | Identify and use application, documents and downloads folder, hard drive, networked folder icons, and trash icons. | How can software be used to show data? |
| | 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each. | Open and use multiple programs, windows, and/or browser tabs simultaneously. | How can software be used for presentations? |
| | 9.4.5.TL.2: Sort and filter data in a spreadsheet to analyze findings. | Use concepts and skills from basic software and apply them to more advanced software. | |
| | 9.4.5.TL.3: Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols. | Organize, calculate, and graph data using a spreadsheet. | |

| Suggested Resources | Google Apps, Youtube, Nearpod, BrainPop, NewsELA, Flocabulary | | Essential Questions: |
|---|---|---|---|
| **Unit 2**<br>**Networks & The Internet/ Impacts of Computing/ Information & Media Literacy** | 8.1.5.NI.2: Describe physical and digital security measures for protecting sensitive personal information. | Identify ways to be safe on the internet. | 1. What are the basic rules of using the internet? |
| | 8.1.5.NI.1: Develop models that successfully transmit and receive information using both wired and wireless methods. | How to safely send an email | 2. How can the internet be used to find useful information? |
| | 8.1.5.IC.1: Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes. | Use software properly for video clips, and animation in presentations. | 3. How can the internet be used for different purposes? |
| | 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users. | Using search engines, etc., search for images, cut/paste them in a Google document, and then find information on the topic and cut/paste the information below the picture. | 4. What is the appropriate behavior to use online? |
| | 9.4.5.IML.1: Evaluate digital sources for accuracy, perspective, credibility and relevance. | | |
| | 9.4.5.IML.4: Determine the impact of implicit and explicit media messages on individuals, groups, and society as a whole. | | |

| | | |
|---|---|---|
| | 9.4.5.IML.6: Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions | |
| **Suggested Resources** | code.org, scratch, NewELA, Nearpod, Youtube, KidBlog, Email, Google Apps | Essential Questions: |
| **Unit 3 Engineering, Design/ Algorithms & Programming/ Critical Thinking & Problem solving** | 8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task. | By using code.org and https://scratch.mit.edu/ and having students code their own interactive stories, animations and games. |
| | 8.1.5.AP.3: Create programs that include sequences, events, loops, and conditionals. | By using Scratch they will think creatively, reason systematically, and work collaboratively while sharing their projects and ideas with others online. |
| | • 8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development. | Students will complete interactive puzzles using Prodigy & Code.org |
| | • 8.1.5.AP.5: Modify, remix, or incorporate pieces of existing programs into one's own work to add additional features or create a new program. | Students will explore the creation of repetitive designs using variables in the Artist environment. Students will learn how variables make code easier to write and easier to read. |
| | | 1. For each app or game you see, what choice do you think the app maker is giving the user? |
| | | 2. How can Debugging help you? |
| | | 3. How does breaking up a bigger problem into smaller pieces help to figure out a solution? |
| | | 4. How are functions helpful in coding? |
| | | 5. How do various coding functions help create and solve activities? |

8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.

8.1.5.AP.6: Develop programs using an iterative process, implement the program design, and test the program to ensure it works as intended.

8.1.5.AP.2: Create programs that use clearly named variables to store and modify data.

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions

| Suggested Resources | code.org, scratch, CS First | | Essential Questions: |
|---|---|---|---|
| | | | 1. How does technology impact our lives? |
| | | | 2. How do engineers modify their designs & use the engineering process? |
| | | | 3. How does society influence the development and functions of products? |
| | | | 4. What does it mean to be a good digital citizen? |
| Unit 4 Interaction of Technology & Humans/ Nature of Technology/ Digital Citizenship | 8.2.5.ITH.1: Explain how societal needs and wants influence the development and function of a product and a system. | Identify how technology innovation and improvement may be influenced by a variety of factors. | |
| | 8.2.5.NT.2: Identify new technologies resulting from the demands, values, and interests of individuals, businesses, industries, and societies. | Technology innovation and improvement may be influenced by a variety of factors. | |
| | 8.2.5.NT.3: Redesign an existing product for a different purpose in a collaborative team. | Engineers create and modify technologies to meet people's needs and wants; scientists ask questions about the natural world. | |
| | 9.4.5.DC.4: Model safe, legal, and ethical behavior when using online or offline technology. | Work collaboratively to create a business that improves upon a previous invention/material. | |
| | 9.4.5.DC.5: Identify the characteristics of a positive and negative online identity and the lasting implications of online activity. | Digital Citizenship overview. | |

| Suggested Resources | | | Nearpod, Google Apps, CS First, NewsELA, BrainPop, Youtube | | |
|---|---|---|---|---|---|
| | | | 8.2.5.ETW.2: Describe ways that various technologies are used to reduce improper use of resources. | The technology developed for the human designed world can have unintended consequences for the environment. | Essential Questions:<br>1. What are some unintended consequences that technology has on the environment? |
| **Unit 5**<br>**Effects of Technology on the Natural World/ Ethics & Culture/ Global & Cultural Awareness** | | | 8.2.5.ETW.4: Explain the impact that resources, such as energy and materials used to develop technology, have on the environment. | Technology must be continually developed and made more efficient to reduce the need for non-renewable resources. | 2. What are some ways technology can help the environment in regards to renewable energy and waste reduction? |
| | | | 8.2.5.ETW.5: Identify the impact of a specific technology on the environment and determine what can be done to increase positive effects and to reduce any negative effects, such as climate change. | Technological choices and opportunities vary due to factors such as differences in economic resources, location, and cultural values. | 3. How does access to technology impact education? |
| | | | 8.2.5.EC.1: Analyze how technology has contributed to or reduced inequities in local and global communities and determine its short- and long-term effects. | | |
| | | | 9.4.5.GCA.1: Analyze how culture shapes individual and community perspectives and points of view | | |

# Curricular Units

| | |
|---|---|
| Suggested Resources | NewsELA, Brainpop, Google Apps, Youtube, Nearpod |

## Unit 1: Computing Systems/ Data Analysis/Technology Literacy

| Content Standards | Critical Knowledge & Skills ("Unpacked" Standards) | Content-Specific Practices (when applicable) | Standard Mastery Examples *When possible, provide links to specific samples/ documents/ assignments/etc.* |
|---|---|---|---|
| 8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.<br><br>8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems.<br><br>8.1.2.CS.1: Select and operate computing devices that perform a | • Demonstrate responsible behavior when safely operating technology equipment.<br>• Demonstrate correct keyboarding skills by selecting alpha and numeric keys, as well as commonly used keys (i.e. ENTER, SPACEBAR, SHIFT). | Using Google Apps | |

variety of tasks accurately and quickly based on user needs and preferences.

9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.

9.4.5.TL.2: Sort and filter data in a spreadsheet to analyze findings.

9.4.5.TL.3: Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols.

- Understand terms and concepts related with applications
- Demonstrate the ability to copy and paste text and graphics.
- Identify and use application, documents and downloads folder, hard drive, networked folder icons, and trash icons.
- Open and use multiple programs, windows, and/or browser tabs simultaneously.
- Demonstrate time management skills in accomplishing lesson objectives.
- Open, create, delete, copy, paste, import, and/or export a document, file and folder.
- Identify and define terms and concepts related to word processing (alignment/spacing, font style/size/color, etc)
- Recognize the purpose of basic menu options (new, open, save, quit, print, undo, redo, page setup, insert, format, etc.).

## Unit 1 Assessment Plan

| Formative Assessment | Summative Assessment |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| typing.com WPM tests, teacher observations, Q&A, Nearpod responses, quick writing responses. | Typing Test, Vocabulary Test, PBLs |

## Unit 1 Suggested Modifications/Accommodations/Extension Activities

| English Language Learners (ELL) | Special Education / 504 | Gifted and Talented |
|---|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| labeling, explicit directions, directions posted, access to native language dictionary (digital), work in conjunction with ELL teacher | extended time, explicit directions, directions posted, work in conjunction with SPed teacher/ aid (when applicable) | extension activities via Nearpod/NewsELA, PBL activities, student tutors/mentors |

## Unit 1 Connections

| NJSLS - Technology | Career Readiness Practices |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* Refer to the NJ Technology Standards | *When possible, provide links to specific samples/ documents/ assignments/etc.* Refer to the NJ Career Readiness Practices |
| N/A | CRP1. Act as a responsible and contributing citizen<br>CRP2. Apply appropriate academic and technical skills.<br>CRP4. Communicate clearly and effectively and with reason.<br>CRP11. Use technology to enhance productivity.<br>CRP12. Work productively in teams while using cultural global competence. |

| 21st Century Skills<br><br>*When possible, provide links to specific samples/ documents/ assignments/etc.*<br>Refer to the <u>21st Century Life and Skills</u> | Interdisciplinary Connections<br><br>*When possible, provide links to specific ELA/Math/Sci/SS standards as well as samples/ documents/ assignments/etc.*<br>Refer to the <u>NJ Student Learning Standards</u> | |
|---|---|---|
| CRP1. Act as a responsible and contributing citizen<br>CRP2. Apply appropriate academic and technical skills.<br>CRP4. Communicate clearly and effectively and with reason.<br>CRP11. Use technology to enhance productivity.<br>CRP12. Work productively in teams while using cultural global competence. | 4.NBT.A.2.2<br>4.NBT.A.2.1<br>W.4.10.<br>L.4.2 | |

# Unit 2: Networks & The Internet/ Impacts of Computing/ Information & Media Literacy

| Content Standards | Critical Knowledge & Skills ("Unpacked" Standards) | Content-Specific Practices (when applicable) | Standard Mastery Examples *When possible, provide links to specific samples/ documents/ assignments/etc.* |
|---|---|---|---|
| 8.1.5.NI.2: Describe physical and digital security measures for protecting sensitive personal information. | • Work cooperatively and collaboratively to gather information and communicate results. | Digital Citizenship | |
| 8.1.5.NI.1: Develop models that successfully transmit and receive information using both wired and wireless methods. | • Develop ability to utilize search engines, key words, and advanced search. | | |
| 8.1.5.IC.1: Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes. | • Demonstrate understanding of internet navigation & how to safely navigate the internet. | | |
| | • Follow instructions on websites. | | |
| 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users. | • Demonstrate the ability to use the internet to access, retrieve, interpret, and evaluate information. | | |
| 9.4.5.IML.1: Evaluate digital sources for accuracy, perspective, credibility and relevance. | • Demonstrate the ability to use appropriate communication skills in an online environment. | | |
| 9.4.5.IML.4: Determine the impact of implicit and explicit media messages on individuals, groups, and society as a whole. | | | |

9.4.5.IML.6: Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions

## Unit 2 Assessment Plan

| Formative Assessment | Summative Assessment |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| typing.com WPM tests, teacher observations, Q&A, Nearpod responses, quick writing responses. | Typing Test, Vocabulary Test, PBLs |

## Unit 2 Suggested Modifications/Accommodations/Extension Activities

| English Language Learners (ELL) | Special Education / 504 | Gifted and Talented |
|---|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| labeling, explicit directions, directions posted, access to native language dictionary (digital), work in conjunction with ELL teacher | extended time, explicit directions, directions posted, work in conjunction with SPed teacher/ aid (when applicable) | extension activities via Nearpod/NewsELA, PBL activities, student tutors/mentors |

## Unit 2 Connections

| | |
|---|---|
| **NJSLS - Technology**<br>*When possible, provide links to specific samples/ documents/ assignments/etc.*<br>Refer to the NJ Technology Standards | **Career Readiness Practices**<br>*When possible, provide links to specific samples/ documents/ assignments/etc.*<br>Refer to the NJ Career Readiness Practices |
| N/A | CRP1. Act as a responsible and contributing citizen<br>CRP2. Apply appropriate academic and technical skills.<br>CRP4. Communicate clearly and effectively and with reason.<br>CRP11. Use technology to enhance productivity.<br>CRP12. Work productively in teams while using cultural global competence. |
| **21st Century Skills**<br>*When possible, provide links to specific samples/ documents/ assignments/etc.*<br>Refer to the 21st Century Life and Skills | **Interdisciplinary Connections**<br>*When possible, provide links to specific ELA/Math/Sci/SS standards as well as samples/ documents/ assignments/etc.*<br>Refer to the NJ Student Learning Standards |
| CRP1. Act as a responsible and contributing citizen<br>CRP2. Apply appropriate academic and technical skills.<br>CRP4. Communicate clearly and effectively and with reason.<br>CRP11. Use technology to enhance productivity.<br>CRP12. Work productively in teams while using cultural global competence. | 4.NF.C.6<br>4.NF.C.5<br>W.4.10.<br>L.4.2 |

## Unit 3: Engineering, Design/ Algorithms & Programming/ Critical Thinking & Problem Solving

| Content Standards | Critical Knowledge & Skills ("Unpacked" Standards) | Content-Specific Practices (when applicable) | Standard Mastery Examples When possible, provide links to specific samples/ documents/ assignments/etc. |
|---|---|---|---|
| 8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.<br><br>8.1.5.AP.3: Create programs that include sequences, events, loops, and conditionals.<br><br>• 8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.<br><br>• 8.1.5.AP.5: Modify, remix, or incorporate pieces of existing programs into one's own work to add additional features or create a new program.<br><br>8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate. | By using code.org and https://scratch.mit.edu/ and having students code their own interactive stories, animations and games.<br><br>By using Scratch they will think creatively, reason systematically, and work collaboratively while sharing their projects and ideas with others online.<br><br>Students will complete interactive puzzles using Prodigy & Code.org<br><br>Students will explore the creation of repetitive designs using variables in the Artist environment. Students will learn how variables make code easier to write and easier to read. | Coding skills and knowledge (code.org) | |

| Standards | | |
|---|---|---|
| 8.1.5.AP.6: Develop programs using an iterative process, implement the program design, and test the program to ensure it works as intended. | | |
| 8.1.5.AP.2: Create programs that use clearly named variables to store and modify data. | | |
| 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process | | |
| 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems. | | |
| 9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions | | |

## Unit 3 Assessment Plan

| Formative Assessment | Summative Assessment |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| typing.com WPM tests, teacher observations, Q&A, Nearpod responses, quick writing responses. | Typing Test, Vocabulary Test, PBLs |

## Unit 3 Suggested Modifications/Accommodations/Extension Activities

| English Language Learners (ELL) | Special Education / 504 | Gifted and Talented |
|---|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| labeling, explicit directions, directions posted, access to native language dictionary (digital), work in conjunction with ELL teacher | extended time, explicit directions, directions posted, work in conjunction with SPed teacher/ aid (when applicable) | extension activities via Nearpod/NewsELA, PBL activities, student tutors/mentors |

## Unit 3 Connections

| NJSLS - Technology | Career Readiness Practices |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* <u>Refer to the NJ Technology Standards</u> | *When possible, provide links to specific samples/ documents/ assignments/etc.* <u>Refer to the NJ Career Readiness Practices</u> |
| N/A | CRP1. Act as a responsible and contributing citizen<br>CRP2. Apply appropriate academic and technical skills.<br>CRP4. Communicate clearly and effectively and with reason.<br>CRP11. Use technology to enhance productivity.<br>CRP12. Work productively in teams while using cultural global competence. |

| 21st Century Skills | Interdisciplinary Connections |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* <u>Refer to the 21st Century Life and Skills</u> | *When possible, provide links to specific ELA/Math/Sci/SS standards as well as samples/ documents/ assignments/etc.* <u>Refer to the NJ Student Learning Standards</u> |
| CRP1. Act as a responsible and contributing citizen<br>CRP2. Apply appropriate academic and technical skills.<br>CRP4. Communicate clearly and effectively and with reason.<br>CRP11. Use technology to enhance productivity.<br>CRP12. Work productively in teams while using cultural global competence. | 4.NF.A.2<br>4.NF.A.1<br>W.4.1.<br>W.4.10. L.4.2 |

## Unit 4: Interaction of Technology & Humans/ Nature of Technology/Digital Citizenship

| Content Standards | Critical Knowledge & Skills ("Unpacked" Standards) | Content-Specific Practices (when applicable) | Standard Mastery Examples *When possible, provide links to specific samples/ documents/ assignments/etc.* |
|---|---|---|---|
| 8.2.5.ITH.1: Explain how societal needs and wants influence the development and function of a product and a system. | Identify how technology innovation and improvement may be influenced by a variety of factors. | Digital Citizenship overview | |
| 8.2.5.NT.2: Identify new technologies resulting from the demands, values, and interests of individuals, businesses, industries, and societies. | Technology innovation and improvement may be influenced by a variety of factors. | | |
| 8.2.5.NT.3: Redesign an existing product for a different purpose in a collaborative team. | Engineers create and modify technologies to meet people's needs and wants; scientists ask questions about the natural world. | | |
| 9.4.5.DC.4: Model safe, legal, and ethical behavior when using online or offline technology. | Work collaboratively to create a business that improves upon a previous invention/material. | | |
| 9.4.5.DC.5: Identify the characteristics of a positive and negative online identity and the lasting implications of online activity. | Digital Citizenship overview. | | |

## Unit 4 Assessment Plan

| Formative Assessment | Summative Assessment |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| typing.com WPM tests, teacher observations, Q&A, Nearpod responses, quick writing responses. | Typing Test, Vocabulary Test, PBLs |

## Unit 4 Suggested Modifications/Accommodations/Extension Activities

| English Language Learners (ELL) | Special Education / 504 | Gifted and Talented |
|---|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| labeling, explicit directions, directions posted, access to native language dictionary (digital), work in conjunction with ELL teacher | extended time, explicit directions, directions posted, work in conjunction with SPed teacher/ aid (when applicable) | extension activities via Nearpod/NewsELA, PBL activities, student tutors/mentors |

## Unit 4 Connections

| NJSLS - Technology | Career Readiness Practices |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* <br> Refer to the NJ Technology Standards | *When possible, provide links to specific samples/ documents/ assignments/etc.* <br> Refer to the NJ Career Readiness Practices |
| N/A | CRP1. Act as a responsible and contributing citizen |

| | | |
|---|---|---|
| | | CRP2. Apply appropriate academic and technical skills.<br>CRP4. Communicate clearly and effectively and with reason.<br>CRP11. Use technology to enhance productivity.<br>CRP12. Work productively in teams while using cultural global competence. |
| **21st Century Skills**<br>*When possible, provide links to specific samples/ documents/ assignments/etc.*<br>*Refer to the 21st Century Life and Skills* | | **Interdisciplinary Connections**<br>*When possible, provide links to specific ELA/Math/Sci/SS standards as well as samples/ documents/ assignments/etc.*<br>*Refer to the NJ Student Learning Standards* |
| CRP1. Act as a responsible and contributing citizen<br>CRP2. Apply appropriate academic and technical skills.<br>CRP4. Communicate clearly and effectively and with reason.<br>CRP11. Use technology to enhance productivity. | | 4.NBT.B.5 4.NBT.B.6  W.4.1.  W.4.10.  L.4.2 |

## Unit 5: Effects of Technology on the Natural World/ Ethics & Culture/ Global & Cultural Awareness

| Content Standards | Critical Knowledge & Skills ("Unpacked" Standards) | Content-Specific Practices (when applicable) | Standard Mastery Examples When possible, provide links to specific samples/ documents/ assignments/etc. |
|---|---|---|---|
| 8.2.5.ETW.2: Describe ways that various technologies are used to reduce improper use of resources. | The technology developed for the human designed world can have unintended consequences for the environment. | | |
| 8.2.5.ETW.4: Explain the impact that resources, such as energy and materials used to develop technology, have on the environment. | Technology must be continually developed and made more efficient to reduce the need for non- renewable resources. | | |
| 8.2.5.ETW.5: Identify the impact of a specific technology on the environment and determine what can be done to increase positive effects and to reduce any negative effects, such as climate change. | Technological choices and opportunities vary due to factors such as differences in economic resources, location, and cultural values. | | |
| 8.2.5.EC.1: Analyze how technology has contributed to or reduced inequities in local and global communities and determine its short- and long-term effects. | | | |
| 9.4.5.GCA.1: Analyze how culture shapes individual and community perspectives and points of view | | | |

## Unit 5 Assessment Plan

| Formative Assessment | Summative Assessment |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| typing.com WPM tests, teacher observations, Q&A, Nearpod responses, quick writing responses. | Typing Test, Vocabulary Test, PBLs |

## Unit 5 Suggested Modifications/Accommodations/Extension Activities

| English Language Learners (ELL) | Special Education / 504 | Gifted and Talented |
|---|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* | *When possible, provide links to specific samples/ documents/ assignments/etc.* |
| labeling, explicit directions, directions posted, access to native language dictionary (digital), work in conjunction with ELL teacher | extended time, explicit directions, directions posted, work in conjunction with SPed teacher/ aid (when applicable) | extension activities via Nearpod/NewsELA, PBL activities, student tutors/mentors |

## Unit 5 Connections

| NJSLS - Technology | Career Readiness Practices |
|---|---|
| *When possible, provide links to specific samples/ documents/ assignments/etc.* Refer to the NJ Technology Standards | *When possible, provide links to specific samples/ documents/ assignments/etc.* Refer to the NJ Career Readiness Practices |
| N/A | CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. |

| 21st Century Skills | Interdisciplinary Connections |
| When possible, provide links to specific samples/ documents/ assignments/etc. Refer to the 21st Century Life and Skills | When possible, provide links to specific ELA/Math/Sci/SS standards as well as samples/ documents/ assignments/etc. Refer to the NJ Student Learning Standards |
|---|---|
| CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence. | 4.NBT.A.2.2  4.NBT.A.2.1  W.4.1. W.4.10.  L.4.2 |