

# Computers

## Grade 5

**Prepared by:**

David Hershberger

*Superintendent of Schools:*

Marie C. Cirasella, Ed.D.

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## Grade 5 Computers

**Course Description:** Grade 5 Computers will continue to build off the skills and knowledge the students have attained in Grades 1-4. Keyboarding skills continue to be enhanced, but the focus shifts to exploring more advanced features of the Google Education Suite (Docs, Slides, Sheets). Understanding the impact computer science has had on society and on the planet is another key concept in this grade level. Internet safety and digital citizenship will always be a key component to our program due to the increased role of the Internet, smartphones and social media in our daily lives. Since more and more students in this age group have social media accounts, special attention will be paid to responsible use of these powerful platforms. Coding work will continue through Code.org and Google CS First lessons. Students will have more flexibility and get a chance for a bit more advanced coding through CSFirst.

### Course Sequence:

**Unit 1:** Amazing Race, Google Education Suite (12 weeks) \*

**Unit 2:** Keyboarding, Internet Safety, Digital Citizenship, (14 weeks)

**Unit 3:** Keyboarding, Coding, Slides (14 Weeks) \*

### Pre-requisite: Grade 4 Computers

*\* Approximately 2 weeks will be spent on on-line practice assessments preparing for NJSLA*

**Unit 1 - Overview****Content Area: Computers****Unit Title: The Amazing Race & Google Forms****Grade Level: 5**

**Core Ideas:** Google Education has a variety of programs that allow you to present information in a variety of ways. This unit requires that students use Internet search skills, Forms, Slides, and Sheets. Students must plan a trip with a specified budget and keep track of all expenses. This unit is a great way to teach real life skills and how using technology can make it easier and keep it organized.

**Unit 1 - Standards****Standards: (Content and Technology):****CPI#: Statement:****Performance Expectations (NJSLs)****Career Readiness, Life Literacies, and Key Skills**

<b>9.2.5.CAP.2</b>	Identify how you might like to earn an income.
<b>9.4.5.CT.1</b>	Identify and gather relevant data that will aid in the problem-solving process
<b>9.4.5.CT.3</b>	Describe how digital tools and technology may be used to solve problems.
<b>9.2.5.CAP.1</b>	Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
<b>9.4.5.TL.1</b>	Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
<b>9.4.5.DC.1</b>	Explain the need for and use of copyrights.
<b>9.4.5.DC.2</b>	Provide attribution according to intellectual property rights guidelines using public domain or creative commons media.
<b>9.4.5.DC.3</b>	Distinguish between digital images that can be reused freely and those that have copyright restrictions.
<b>9.4.5.IML.2</b>	Create a visual representation to organize information about a problem or issue
<b>9.4.5.TL.2</b>	Sort and filter data in a spreadsheet to analyze findings.
<b>9.1.5.CP.1</b>	Identify the advantages of maintaining a positive credit history.
<b>9.1.5.EG.1</b>	Explain and give examples of what is meant by the term "tax."
<b>9.1.5.EG.2</b>	Describe how tax monies are spent
<b>9.1.5.EG.3</b>	Explain the impact of the economic system on one's personal financial goals.
<b>9.1.5.EG.4</b>	Describe how an individual's financial decisions affect society and contribute to the overall economy.
<b>9.1.5.EG.5</b>	Identify sources of consumer protection and assistance
<b>9.1.5.FP.2</b>	Identify the elements of being a good steward of money
<b>9.1.5.FP.3</b>	Analyze how spending choices and decision-making can result in positive or negative consequences.
<b>9.1.5.FP.4</b>	Explain the role of spending money and how it affects wellbeing and happiness (e.g., "happy money," experiences over things, donating to causes, anticipation, etc.).
<b>9.1.5.PB.1</b>	Develop a personal budget and explain how it reflects spending, saving, and charitable contributions
<b>9.1.5.PB.2</b>	Describe choices consumers have with money (e.g., save, spend, donate).
<b>9.1.5.RMI.1</b>	Identify risks that individuals and households face
<b>9.1.5.RMI.2</b>	Justify reasons to have insurance
<b>Computer Science and Design Thinking</b>	
<b>8.1.5.DA.1</b>	Collect, organize, and display data in order to highlight relationships or support a claim.
<b>8.1.5.DA.3</b>	Organize and present collected data visually to communicate insights gained from different views of the data.
<b>8.1.5.DA.4</b>	Organize and present climate change data visually to highlight relationships or support a claim.
<b>8.1.5.DA.5</b>	Propose cause and effect relationships, predict outcomes, or communicate ideas using data.
<b>8.2.5.ED.4</b>	Explain factors that influence the development and function of products and systems (e.g., resources, criteria, desired features, constraints).
<b>8.2.5.ITH.1</b>	Explain how societal needs and wants influence the development and function of a product and a system.
<b>8.2.5.ITH.2</b>	Evaluate how well a new tool has met its intended purpose and identify any shortcomings it might have.
<b>8.2.5.ITH.3</b>	Analyze the effectiveness of a new product or system and identify the positive and/or negative consequences resulting from its use.

<b>8.2.5.ITH.4</b>	Describe a technology/tool that has made the way people live easier or has led to a new business or career.
<b>8.2.5.NT.2</b>	Identify new technologies resulting from the demands, values, and interests of individuals, businesses, industries, and societies.
<b>8.2.5.EC.1</b>	•Analyze how technology has contributed to or reduced inequities in local and global communities and determine its short- and long-term effects.
<b>8.2.5.ETW.1</b>	Describe how resources such as material, energy, information, time, tools, people, and capital are used in products or systems.
<b>8.2.5.ETW.2</b>	Describe ways that various technologies are used to reduce improper use of resources.
<b>8.2.5.ETW.3</b>	Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved.
<b>8.2.5.ETW.4</b>	Explain the impact that resources, such as energy and materials used to develop technology, have on the environment.
<b>8.2.5.ETW.5</b>	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.
<b>8.2.5.EC.1</b>	Analyze how technology has contributed to or reduced inequities in local and global communities and determine its short- and long-term effects.

**Interdisciplinary Connection**

<b>RI.5.7.</b>	Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
<b>W.5.2.</b>	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
<b>W.5.6.</b>	With some guidance and support from adults and peers, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.
<b>W.5.7.</b>	Conduct short research projects that use several sources to build knowledge through investigation of different perspectives of a topic.
<b>W.5.8</b>	. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources
<b>NJSLSA.W9.</b>	Draw evidence from literary or informational texts to support analysis, reflection, and research.

**Intercultural Statements (*Amistad, Holocaust, LGBT, SEL, etc...*)**

<p><b>Unit Essential Question(s):</b></p> <ul style="list-style-type: none"> <li>• How can we use the Internet in our everyday lives to save money?</li> <li>• What digital tools are best for organizing data?</li> <li>• What are some technologies that have changed the way we travel and plan vacations?</li> <li>• What are taxes and what do they do for us?</li> <li>• How can we use technology to help reduce impacts of climate change?</li> </ul>	<p><b>Unit Enduring Understandings:</b></p> <ul style="list-style-type: none"> <li>• There are a variety of useful resources available for the same tasks</li> <li>• Searching the Internet effectively can save time and money</li> <li>• Google Education has a variety of tools to present data</li> <li>• Computers and Technology have many impacts not only on our society, but also on our planet</li> <li>• Spreadsheets are a useful tool to organize and analyze data</li> <li>• Using more than one digital source when researching is beneficial</li> <li>• We must give credit to the sources that we use for research</li> <li>• With the internet we have a lot of purchasing power, however we have to know how to purchase safely and within our means.</li> <li>• Taxes are necessary to sustain government.</li> </ul>
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**Evidence of Learning**

**Formative Assessments:** Docs Organizer  
Ed Club Typing Progress  
Computer History Timeline  
Teacher Observations

**Summative/Benchmark Assessment(s):**  
Completed budget Spreadsheet  
Amazing Race Slideshow

**Alternative Assessments:**

Student conversations Student project			
<b>Resources/Materials:</b> BrainPop EdClub Typing Google Education Suite Microsoft Excel Google Classroom Faronics Insight		<b>Key Vocabulary:</b> Spreadsheet Cells Columns Rows Survey Forms Data Transitions	
<b>Suggested Pacing Guide</b>			
<b>Lesson Name/Topic</b>	<b>Student Learning Objective(s)</b>	<b>Suggested Tasks/Activities:</b>	<b>Day(s) to Complete</b>
Introduction to Google Forms	<ul style="list-style-type: none"> <li>- Learn names of important pioneers</li> <li>- General idea of when specific technologies were invented</li> </ul>	<ul style="list-style-type: none"> <li>-Demonstrate how to create a survey using Google Forms</li> <li>-Students work in small groups to create survey</li> <li>-</li> </ul>	2
Introduction to Microsoft Excel	<ul style="list-style-type: none"> <li>-Format Cells</li> <li>-Create a Pie Chart or Bar Graph</li> <li>-Insert an image into chart</li> </ul>	<ul style="list-style-type: none"> <li>-Demonstrate and explain how to add data to a spreadsheet</li> <li>-Show students how to save their spreadsheet to the folder on their desktop</li> <li>-Teach how to add images and format individual parts of a chart</li> </ul>	2
Introduce Amazing Race Project	<ul style="list-style-type: none"> <li>-Navigate the internet independently and record data.</li> </ul>	<ul style="list-style-type: none"> <li>-Review links that can be used for research</li> <li>-Explain how to input data into table in Docs</li> <li>-Remind students of the parameters for the project</li> </ul>	1
Google Docs Organizer	<ul style="list-style-type: none"> <li>-Complete each cell with the required data</li> <li>-Organize trip data</li> </ul>	<ul style="list-style-type: none"> <li>-Use Internet sites to find flights, hotels, restaurants and attractions</li> <li>-Keep track of all costs on the table in Docs</li> </ul>	2
Google Sheets	<ul style="list-style-type: none"> <li>-Demo how to format cells</li> <li>-Teach how to use functions</li> </ul>	<ul style="list-style-type: none"> <li>-Transfer data from Docs to Sheets</li> <li>-Add up totals for each section using Functions</li> </ul>	2
Google Slides	<ul style="list-style-type: none"> <li>-Be able to create a presentation that displays data from research</li> </ul>	<ul style="list-style-type: none"> <li>-Format Slides</li> <li>-Add images and transitions</li> <li>-Give credit to sources</li> </ul>	2
<b>Teacher Notes:</b>			
<b>Additional Resources:</b> Travelocity Yelp			
<b>Differentiation/Modification Strategies</b>			
<b>Students with Disabilities/504</b>			
<ul style="list-style-type: none"> <li>● Preferential Seating</li> <li>● Strategic/flexible grouping and pairing</li> <li>● Ample wait time before calling on students</li> <li>● Student self-assessment, self-monitoring of progress</li> <li>● Speaking: Provide sentence starters, processing time, cues and prompts, embedded choices, practice time; repeating/simplifying of directions; clear visual, verbal and demonstrative modeling; think/Pair/Share</li> <li>● Have students set personal growth goals</li> </ul>			

- Groups/Pairs: teach rules and expectations; skills of independence – bridging phrases, disagreeing agreeably, voice level; strategies for moving in and out of groups; signal for getting teacher’s attention
- Allow: flexible grouping; adequate/extra time; assign group roles; ample use of visuals; kinesthetic activities; rhythm, music, body movements; teach vocab in context, and in small chunks; break down assignments into manageable parts/tasks
- Reading: Use peer tutoring; label main ideas; label 5 W’s; visual imagery; graphic organizers
- Allow: Highlighting of key words/concepts; silent pre-reading; partner reading
- Teach: Pre-reading strategies; ‘During’ reading strategies; Post-reading strategies; Use of manipulatives; Use of graphic organizers; Frequent repetition; Learning centers or stations that address varied activities, skills, learning modalities
- Writing: Shorten task; Require lists rather than sentences. Allow: note-taking; visual representation of ideas; collaborative writing; Brainstorm word bank; Pre-writing with graphic organizers. Provide: Model of writing; Structure for writing; Fill-in-blank form for note-taking

**English Language Learners**

- Give instructions/directions in writing and orally
- Assign a buddy, same language or English speaking
- Allow errors in speaking
- Allow errors in writing
- Highlight key vocabulary
- Reduce amount of work required
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation

**Gifted and Talented**

- Anchor Activities
- Appoint as teacher’s helpers
- Assign additional Internet activities

**Students at Risk**

- Online Enrichment activities
- Peer tutoring

**Unit 2 - Overview****Content Area: Computers****Unit Title: Digital Citizenship****Grade Level: 5****Core Ideas:** Being a responsible and ethical digital citizen is crucial for our 21st century learners. Students will learn to protect their information, be responsible online,**Unit 2 - Standards****Standards:** (Content and Technology):**CPI#:**      **Statement:****Performance Expectations (NJSLs)****Career Readiness, Life Literacies, and Key Skills**

<b>9.2.5.CAP.2</b>	Identify how you might like to earn an income.
<b>9.4.5.CT.3</b>	Describe how digital tools and technology may be used to solve problems.
<b>9.4.5.DC.3</b>	Distinguish between digital images that can be reused freely and those that have copyright restrictions.
<b>9.4.5.DC.4</b>	Model safe, legal, and ethical behavior when using online or offline technology
<b>9.4.5.DC.5</b>	Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
<b>9.4.5.DC.6</b>	Compare and contrast how digital tools have changed social interactions
<b>9.4.5.DC.7</b>	Explain how posting and commenting in social spaces can have positive or negative consequences.
<b>9.4.5.IML.1</b>	Evaluate digital sources for accuracy, perspective, credibility and relevance
<b>9.4.5.TL.3</b>	Format a document using a word processing application to enhance text, change page formatting, and include appropriate images graphics, or symbols.

**Computer Science and Design Thinking**

<b>8.1.5.NI.2</b>	Describe physical and digital security measures for protecting sensitive personal information.
<b>8.1.5.IC.1</b>	Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes.
<b>8.1.5.IC.2</b>	Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.
<b>8.1.5.DA.1</b>	Collect, organize, and display data in order to highlight relationships or support a claim.
<b>8.2.5.ITH.4</b>	Describe a technology/tool that has made the way people live easier or has led to a new business or career.

**Interdisciplinary Connection (must include Companion Standard(s) R and W)**

<b>1.2.5.Re7b</b>	Identify, describe, explain and differentiate how various forms, methods, and styles in media artworks affect and manage audience experience when addressing global issues including climate change.
<b>1.2.5.Cn10b</b>	Identify, examine and show how media artworks form meanings, situations and cultural experiences, such as news and cultural events.
<b>1.2.5.Cn11a</b>	Identify, explain, research and show how media artworks and ideas relate to personal, social and community life (e.g., exploring online behavior, fantasy and reality, commercial and information purposes, history, ethics).
<b>1.2.5.Cn11b</b>	Examine, discuss and interact appropriately with media arts tools and environments, considering safety, ethics, rules, and media literacy.
<b>W.5.7.</b>	Conduct short research projects that use several sources to build knowledge through investigation of different perspectives of a topic.
<b>W.5.8</b>	. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources

**Intercultural Statements (Amistad, Holocaust, LGBT, SEL, etc...)**

Holocaust: Focus on the importance of being an upstander when using social media. Reinforce that bias and intimidation online can lead to school consequences as well as legal ones.

**Unit Essential Question(s):**

- What is cyberbullying and what do we do if we see it happening?
- How can what we do and say online now affect our future?

**Unit Enduring Understandings:**

- Technology allows us to connect with others in meaningful ways
- It is important to keep our information and identities private while online.
- How to keep our computers free from Malware and safe from hackers

<ul style="list-style-type: none"> <li>• What are some ways to ensure that we keep our data private?</li> <li>• How can our online words affect others and their mental health?</li> </ul>	<ul style="list-style-type: none"> <li>• People often lie about their real identity so you should not talk to strangers online</li> <li>• What you post online can live on forever</li> <li>• There can be real world consequences to poor online behavior</li> </ul>
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### Evidence of Learning

**Formative Assessments:** BrainPop assignments  
Common Sense Media assignments  
Individual Slideshow

**Summative/Benchmark Assessment(s):**  
Online Safety and Vocabulary Quiz

**Alternative Assessments:**

Student conversations  
Student choice of project

**Resources/Materials:**

BrainPop  
Common Sense Media  
Google Be Internet Awesome  
Code.Org  
Google Docs  
Google Classroom  
Faronics Insight

**Key Vocabulary:**

Cyberbully	Spam
Social Media	Hacker
Downloading	Malware
Hyperlink	Phishing
Digital Etiquette	Social Network
Bystander	Upstander

### Suggested Pacing Guide

Lesson Name/Topic	Student Learning Objective(s)	Suggested Tasks/Activities:	Day(s) to Complete
Digital Citizenship Intro	-Understand what Digital Citizenship is -Review prior knowledge -	-Class Discussion -Watch Videos together as a class	1
Vocabulary	-Discuss what students have experienced online -Comprehend vocabulary terms	-Class Discussion -Review Key Vocabulary Watch related videos	1
BrainPop	-How to stay safe online	-BrainPop “Social Media” and “Information Privacy” videos -Brain Pop activities	2
Common Sense Media	-Digital Identity -Privacy & Security -Media Balance	-Common Sense Media grade 5 lessons -Watch related videos as a class -Complete worksheets individually and in small groups	4
Digital Passport	-How to respond to cyberbullying -Using keywords and finding appropriate sources	Digital Passport Mix and Mash	3
Google Interland	-Secure your Secrets -When in Doubt Talk it Out	-Google Be Internet Awesome -Slideshow from <a href="https://beinternetawesome.withgoogle.com/en_us/slides">https://beinternetawesome.withgoogle.com/en_us/slides</a> -Play Interland	2
WordArt	-MLK “I Have a Dream Speech” - Create word cloud with WordArt	- Watch “I Have a Dream” speech -Students take notes on key words -Students turn these words into a word cloud using WordArt	1

**Teacher Notes:**

**Additional Resources:**



YouTube  
K-5Tech.Net

### Differentiation/Modification Strategies

#### Students with Disabilities/504

- Preferential Seating
- Strategic/flexible grouping and pairing
- Ample wait time before calling on students
- Student self-assessment, self-monitoring of progress
- Speaking: Provide sentence starters, processing time, cues and prompts, embedded choices, practice time; repeating/simplifying of directions; clear visual, verbal and demonstrative modeling; think/Pair/Share
- Have students set personal growth goals
- Groups/Pairs: teach rules and expectations; skills of independence – bridging phrases, disagreeing agreeably, voice level; strategies for moving in and out of groups; signal for getting teacher's attention
- Allow: flexible grouping; adequate/extra time; assign group roles; ample use of visuals; kinesthetic activities; rhythm, music, body movements; teach vocab in context, and in small chunks; break down assignments into manageable parts/tasks
- Reading: Use peer tutoring; label main ideas; label 5 W's; visual imagery; graphic organizers
- Allow: Highlighting of key words/concepts; silent pre-reading; partner reading
- Teach: Pre-reading strategies; 'During' reading strategies; Post-reading strategies; Use of manipulatives; Use of graphic organizers; Frequent repetition; Learning centers or stations that address varied activities, skills, learning modalities
- Writing: Shorten task; Require lists rather than sentences. Allow: note-taking; visual representation of ideas; collaborative writing; Brainstorm word bank; Pre-writing with graphic organizers. Provide: Model of writing; Structure for writing; Fill-in-blank form for note-taking

#### English Language Learners

- Give instructions/directions in writing and orally
- Assign a buddy, same language or English speaking
- Allow errors in speaking
- Allow errors in writing
- Highlight key vocabulary
- Reduce amount of work required
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation

#### Gifted and Talented

- Anchor Activities
- Appoint as teacher's helpers
- Assign additional Internet activities

#### Students at Risk

- Online Enrichment activities
- Peer tutoring

**Unit 3 - Overview****Content Area: Computers****Unit Title: Coding****Grade Level: 5**

**Core Ideas:** Coding is a skill that is becoming more and more useful in today's world. It also furthers students' abilities in problem solving, critical thinking, teamwork, logic and perseverance. As students progress they are introduced to more advanced skills. This will eventually lead to them being able to understand a variety of concepts and help them to learn different coding languages in the upper grades. It will show students that programming allows you to create new apps, games, websites, art and other computer based artifacts.

**Unit 3 - Standards****Standards: (Content and Technology):****CPI#: Statement:****Performance Expectations (NJSL)****Career Readiness, Life Literacies, and Key Skills****9.2.5.CAP.2** Identify how you might like to earn an income.**9.2.5.CAP.3** Identify qualifications needed to pursue traditional and non-traditional careers and occupations.**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.TL.5** Collaborate digitally to produce an artifact**Computer Science and Design Thinking****8.1.5.IC.1** Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes.**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.**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.2** Create programs that use clearly named variables to store and modify data.**8.1.5.AP.3** Create programs that include sequences, events, loops, and conditionals.**8.1.5.AP.4** Break down problems into smaller, manageable sub-problems to facilitate program development.**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.**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.**8.2.5.ED.1** Explain the functions of a system and its subsystems.**8.2.5.ED.2** Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.**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.**8.2.5.ED.5** Describe how specifications and limitations impact the engineering design process.**8.2.5.ED.6** Evaluate and test alternative solutions to a problem using the constraints and trade-offs identified in the design process.**8.2.5.ITH.1** Explain how societal needs and wants influence the development and function of a product and a system.**8.2.5.ITH.2** Evaluate how well a new tool has met its intended purpose and identify any shortcomings it might have.**8.2.5.ITH.3** Analyze the effectiveness of a new product or system and identify the positive and/or negative consequences resulting from its use**8.2.5.ITH.4** Describe a technology/tool that has made the way people live easier or has led to a new business or career.**8.2.5.NT.1** Troubleshoot a product that has stopped working and brainstorm ideas to correct the problem.**8.2.5.NT.3** Redesign an existing product for a different purpose in a collaborative team.**8.2.5.NT.4** Identify how improvement in the understanding of materials science impacts technologies.**8.2.5.ETW.2** Describe ways that various technologies are used to reduce improper use of resources.**8.2.5.ETW.4** Explain the impact that resources, such as energy and materials used to develop technology, have on the environment.

<b>8.2.5.EC.1</b>	Analyze how technology has contributed to or reduced inequities in local and global communities and determine its short- and long-term effects.		
<b>Interdisciplinary Connection (must include Companion Standard(s) R and W)</b>			
<b>1.2.5.Pr5b</b>	Exhibit and develop critical and creative skills, such as inventing new content and expanding conventions, in addressing challenges within and through media arts productions.		
<b>RI.5.7.</b>	Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.		
<b>W.5.2.</b>	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.		
<b>W.5.6.</b>	With some guidance and support from adults and peers, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.		
<b>W.5.7.</b>	Conduct short research projects that use several sources to build knowledge through investigation of different perspectives of a topic.		
<b>W.5.8</b>	. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources		
<b>Intercultural Statements (Amistad, Holocaust, LGBT, SEL, etc...)</b>			
Amistad: For MLK Day, watch the “I Have a Dream” speech and then turn the important phrases and key words into Word Art.			
<b>Unit Essential Question(s):</b>		<b>Unit Enduring Understandings:</b>	
<ul style="list-style-type: none"> <li>How do we use algorithms in our everyday lives?</li> <li>Can we use loops to make our programs easier to write?</li> <li>How does computer programming impact our world?</li> </ul>		<ul style="list-style-type: none"> <li>We communicate with computers, applications, and software programs through computer programming</li> <li>There are a wide variety of ways for coding to be used</li> <li>Algorithm is a set of directions used to solve problems or perform tasks</li> <li>Perseverance, critical thinking, problem solving and teamwork are some important skills learned through coding</li> </ul>	
<b>Evidence of Learning</b>			
<b>Formative Assessments:</b> BrainPop assignments Code.org Lesson Work Class projects with Google CS First			
<b>Summative/Benchmark Assessment(s):</b> Vocabulary Quiz			
<b>Alternative Assessments:</b> Student conversations Student project			
<b>Resources/Materials:</b> BrainPop Code.Org Google CS First Flocabulary Google Classroom Faronics Insight		<b>Key Vocabulary:</b> Event      Command Program    Conditionals Algorithm   Variable Function Sequence Iteration	
<b>Suggested Pacing Guide</b>			
<b>Lesson Name/Topic</b>	<b>Student Learning Objective(s)</b>	<b>Suggested Tasks/Activities:</b>	<b>Day(s) to Complete</b>
BrainPop	-Understand what computer programming entails	-Watch Computer Programming video as a class -Complete activities that go along with the video	1
Unplugged Code.org	-Be able to follow a sequence in an algorithm	-Watch Follow the Algorithm video together -Complete Unplugged activity	1
Code.Org	-Use block coding to complete puzzles	-Work through the assigned levels of Code.Org Course E -Skill-building with Sprite Lab -Drawing with Loops	8

	-Problem solve a variety of coding puzzles -Work with a partner to solve complex problems	-Nested Loops and Functions lessons -Unplugged Code.org lessons as a class	
Flocabulary	-Understand what Coding is and what it can do -Understand how to use Loops in an algorithm	-Flocabulary Conditionals and Events lessons -Watch video as a class and discuss -Students independently	2
Google CS First	-Code your Hero	-Follow along with video tutorials in “Code Your Hero” -Use Scratch platform to perform a variety of skills	2

**Teacher Notes:****Additional Resources:**

YouTube

K-5Tech.Net

<https://code.org/educate/resources/videos>**Differentiation/Modification Strategies****Students with Disabilities/504**

- Preferential Seating
- Strategic/flexible grouping and pairing
- Ample wait time before calling on students
- Student self-assessment, self-monitoring of progress
- Speaking: Provide sentence starters, processing time, cues and prompts, embedded choices, practice time; repeating/simplifying of directions; clear visual, verbal and demonstrative modeling; think/Pair/Share
- Have students set personal growth goals
- Groups/Pairs: teach rules and expectations; skills of independence – bridging phrases, disagreeing agreeably, voice level; strategies for moving in and out of groups; signal for getting teacher’s attention
- Allow: flexible grouping; adequate/extra time; assign group roles; ample use of visuals; kinesthetic activities; rhythm, music, body movements; teach vocab in context, and in small chunks; break down assignments into manageable parts/tasks
- Reading: Use peer tutoring; label main ideas; label 5 W’s; visual imagery; graphic organizers
- Allow: Highlighting of key words/concepts; silent pre-reading; partner reading
- Teach: Pre-reading strategies; ‘During’ reading strategies; Post-reading strategies; Use of manipulatives; Use of graphic organizers; Frequent repetition; Learning centers or stations that address varied activities, skills, learning modalities
- Writing: Shorten task; Require lists rather than sentences. Allow: note-taking; visual representation of ideas; collaborative writing; Brainstorm word bank; Pre-writing with graphic organizers. Provide: Model of writing; Structure for writing; Fill-in-blank form for note-taking

**English Language Learners**

- Give instructions/directions in writing and orally
- Assign a buddy, same language or English speaking
- Allow errors in speaking
- Allow errors in writing
- Highlight key vocabulary
- Reduce amount of work required
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation

**Gifted and Talented**

- Anchor Activities
- Appoint as teacher’s helpers
- Assign additional Internet activities

**Students at Risk**

- Online Enrichment activities
- Peer tutoring