

**STATE OF SOUTH CAROLINA**  
**DEPARTMENT OF EDUCATION**

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# South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource

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## **South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource Overview**

The South Carolina Computer Science and Digital Literacy Standards were approved by the State Board of Education on May 9, 2017. Districts will be expected to implement the South Carolina Computer Science and Digital Literacy Standards for all students in all grade levels, kindergarten through grade eight, beginning with the 2018–19 academic year. Districts will have the discretion to choose how to implement and document the implementation of the South Carolina Computer Science and Digital Literacy Standards, and this resource is intended to support such implementation.

This document provides **examples** of ways the South Carolina Computer Science and Digital Literacy Standards can be embedded in or taught in conjunction with academic standards in the content areas of mathematics, English language arts, science, and social studies. This resource document is not a comprehensive list of all possible connections; since this document is merely guidance, a district should implement the standards in the manner that best addresses its curriculum and the specific needs of its students. When connections from a South Carolina Computer Science and Digital Literacy Standard cannot be made to an academic content area, cells appear grey.

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Kindergarten

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Digital Literacy	<b>Standard 1:</b> Use software applications to create an authentic product.				
	K.DL.1.1: Recognize a program to use for word processing.		<b>Connections:</b> Recognize a program that can be used for word processing opinions, informative/explanatory texts, and narratives.	<b>Connections:</b> Recognize a program that can be used for word processing about weather, objects, or living things.	<b>Connections:</b> Recognize a program that can be used for word processing about surroundings, rules and roles of authority, values of democracy, and family and work life.
			<b>Standards:</b> <i>K.W.1.1</i> <i>K.W.2.1</i> <i>K.W.3.1</i>	<b>Standards:</b> <i>K.L.2</i> <i>K.E.3</i> <i>K.P.4</i>	<b>Standards:</b> <i>K-1</i> <i>K-2</i> <i>K-3</i> <i>K-4</i>
	K.DL.1.2: Recognize a program to use for creating presentations.		<b>Connections:</b> Recognize a program that can be used for creating presentations and exploring how ideas are depicted in a variety of media formats, and use appropriate images to support verbal communication.	<b>Connections:</b> Recognize a program that can be used to create presentations about weather, objects, or living things.	<b>Connections:</b> Recognize a program that can be used to create presentations about surroundings, rules and roles of authority, values of democracy, and family and work life.
			<b>Standards:</b> <i>K.C.1.2</i> <i>K.C.3.1</i> <i>K.C.3.2</i>	<b>Standards:</b> <i>K.L.2</i> <i>K.E.3</i> <i>K.P.4</i>	<b>Standards:</b> <i>K-1</i> <i>K-2</i> <i>K-3</i> <i>K-4</i>

Digital Literacy	Standard 2: Learn the fundamentals of digital citizenship and appropriate use of digital media.				
	K.DL.2.1: Understand safety rules when using a computing device.			<b>Connections:</b> Understand how computing devices may be affected by things such as water and magnets.  Understand how cases made from different materials are effective at protecting computing devices from damage.	<b>Connections:</b> Understand the purpose of safety rules and laws and the consequences of breaking them when using a computing device.
				<b>Standards:</b> K.P.4A.1 K.P.4A.3	<b>Standards:</b> K-2.1 K-2.4
Digital Literacy	Standard 3: Exhibit responsibility when using connected computing devices.				
	K.DL.3.1: Learn how to protect personal information (e.g., username, password).				<b>Connections:</b> Learn how to protect personal information (e.g., username, password) when understanding the purpose of safety rules, and learn the role of authority figures when using a computing device.
					<b>Standards:</b> K-2

Digital Literacy	<b>Standard 4:</b> Demonstrate effective keyboarding skills on a computing device.				
	K.DL.4.1: Locate letter and number keys.	<b>Connections:</b> Locate and read number keys, and represent a number of digital objects 0–20 using number keys on a computing device.	<b>Connections:</b> Locate letter and number keys that can be used for recognizing and naming all upper and lowercase letters of the alphabet.  Locate letter and number keys that can be used to capitalize the first word in a sentence and the pronoun “I”.	<b>Connections:</b> Locate letter and number keys in programs that can be used to type about science.	<b>Connections:</b> Locate letter and number keys in programs similar to a student's ability to demonstrate an understanding of his surroundings (geography).
		<b>Standards:</b> <i>K.NS.3</i>	<b>Standards:</b> <i>K.RI.1.4</i> <i>K.W.5.1</i> <i>K.W.6.4</i>	<b>Standards:</b> <i>K.L.2</i> <i>K.E.3</i> <i>K.P.4</i>	<b>Standards:</b> <i>K-1</i>

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	<b>Standard 1:</b> Understand that computing devices are used to perform a variety of tasks and take many forms.				
	K.CS.1.1: Identify traditional computing devices (e.g., tablets, smartphones, desktops, laptops) and non-traditional computing devices (e.g., microwave, oven, car).	<b>Connections:</b> Identify traditional and non-traditional computing devices when sorting and classifying data into two categories.  Identify traditional and non-traditional computing devices when representing data using object and picture graphs and draw conclusions from the graphs.	<b>Connections:</b> Identify traditional and non-traditional computing devices when comparing topics or ideas within a thematic or author study (i.e., heard, read, or viewed).	<b>Connections:</b> Identify computing devices best suited to solve problems (e.g., a calculator is used to make calculations; a microwave can be used to heat food faster than a conventional oven.)	<b>Connections:</b> Identify traditional and non-traditional computing devices when demonstrating an understanding of the ways families live and work together today and in the past.
		<b>Standards:</b> <i>K.MDA.3</i> <i>K.MDA.4</i>	<b>Standards:</b> <i>K.RI.7.1</i>	<b>Standards:</b> <i>K.P.4A.3</i>	<b>Standards:</b> <i>K-4.4</i>

	K.CS.1.2: Recognize that people use computing devices to perform tasks.		<b>Connections:</b> Recognize that people use devices to perform tasks by developing a plan of action for collecting information; by asking and answering questions about a text; by referring to key details to make inferences and draw conclusions in texts heard or read; and by exploring and creating meaning through play, conversation, drama, and storytelling.	<b>Connections:</b> Recognize that people use computing devices such as smartphones, tablets, and laptops for collecting, storing, and displaying scientific data.	<b>Connections:</b> Recognize that people use computing devices to perform tasks by demonstrating an understanding of the way families live and work together today and in the past.
			<b>Standards:</b> <i>K.I.3.1</i> <i>K.RI.5.1</i> <i>K.C.1.1</i>	<b>Standards:</b> <i>K.P.4A.3</i>	<b>Standards:</b> <i>K-4.4</i>
Computing Systems	<b>Standard 2:</b> Explore hardware (i.e., physical components) and software of computing systems.				
	K.CS.2.1: Use appropriate terminology in naming and identifying hardware (e.g., monitor, keyboard, mouse, earbuds, headphones, printer).		<b>Connections:</b> Use appropriate terminology in naming and identifying hardware by using picture cues to confirm or self-correct word recognition and understanding.	Connections Use appropriate terminology in naming and identifying the hardware such as a monitor used by a meteorologist.	<b>Connections:</b> Use appropriate terminology in naming and identifying hardware in demonstrating an understanding of his or her surroundings.
			<b>Standards:</b> <i>K.RI.4.3</i>	<b>Standards:</b> <i>K.E.3</i>	<b>Standards:</b> <i>K-1.2</i>



	K.CS.2.2: Learn to handle computing devices with proper care (e.g., do not place food or drink near a computer or tablet; hold tablets or laptops with both hands when transporting them).				<b>Connections:</b> Discuss the purpose of rules when learning how to handle computing devices with proper care.
					<b>Standards:</b> <i>K-2.1</i> <i>K-2.4</i>
Computing Systems	<b>Standard 3:</b> Recognize that computing systems might not work as expected because of hardware or software problems.				
	K.CS.3.1: Identify simple hardware problems (e.g., computer is not plugged into power source).		<b>Connections:</b> Identify simple hardware problems by engaging in opportunities for play and exploration to foster a sense of curiosity; by developing a plan of action for collecting information from multiple sources through play and observations; and by discovering relationships and patterns during the inquiry process.	<b>Connections:</b> Identify simple hardware problems that may occur during a storm that may cause an interruption of electricity.	
			<b>Standards:</b> <i>K.C.1.1</i> <i>K.C.3.1</i> <i>K.C.4.1</i>	<b>Standards:</b> <i>K.E.3A.4</i>	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	<b>Standard 1:</b> Discover that computing devices and the internet enable us to connect with other people, places, information, and ideas.				
	K.NI.1.1: Recognize that people can communicate with others by using connected computing devices (e.g., cell phones, tablets).		<b>Connections:</b> Recognize that people can communicate with others by using connected computing devices; by exploring and creating meaning through conversation and interaction with peers; and by using connected computing devices when comparing how ideas and topics are depicted in a variety of media formats.	<b>Connections:</b> Recognize that people can communicate with others by using connected computing devices but that other animals communicate differently.	<b>Connections:</b> Recognize that people can communicate with others by using connected computing devices in the ways families live and work together today and in the past.
			<b>Standards:</b> <i>K.C.1.1</i> <i>K.C.3.1</i>	<b>Standards:</b> <i>K.L.2A.4</i>	<b>Standards:</b> <i>K-4.4</i>

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	<b>Standard 1:</b> Discover how data can be stored in and retrieved from multiple locations.				
	K.DA.1.1: Recognize that data can be collected and stored on different computing devices over time (e.g., progress in a video game).	<b>Connections:</b> Recognize that data can be collected, stored and represented as picture graphs on different computing devices.		<b>Connections:</b> Recognize that meteorologists collect and store weather data on different computing devices.	<b>Connections:</b> Recognize how data collection and storage can be used to help a family make decisions.
		<b>Standards:</b> <i>K.MDA.4</i>		<b>Standards:</b> <i>K.E.3A.2</i>	<b>Standards:</b> <i>K-4.4</i>
	K.DA.1.2: Recognize that data can be retrieved from different computing devices (e.g., progress in a video game; pictures from a smartphone).	<b>Connections:</b> Recognize that data can be retrieved and conclusions can be made from the graphs stored on different computing devices.		<b>Connections:</b> Recognize that meteorologists can retrieve weather data from different computing devices.	<b>Connections:</b> Recognize how retrieving data from different computing devices can help a family communicate and make decisions.
		<b>Standards:</b> <i>K.MDA.4</i>		<b>Standards:</b> <i>K.E.3A.2</i>	<b>Standards:</b> <i>K-4.2</i> <i>K-4.4</i>

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	Standard 2: Explore how computing devices collect and display data.				
	K.DA.2.1: Identify and give examples of data (e.g., lunch choice, weather conditions).	Connections: Identify and give examples of data to sort and classify into two or three categories.		Connections: Identify and give examples of data in the form of weather maps and charts.	Connections: Identify and give examples of data related to community businesses and the goods and services they provide; and data related to decisions families make to fulfill their wants and needs.
		Standards: K.MDA.3		Standards: K.E.3A.1	Standards: K-4.3 K-4.4
Networks and the Internet	Standard 3: Explore how data can be displayed for communication in many ways.				
	K.DA.3.1: Recognize data displayed in picture graphs.	Connections: Recognize and represent data displayed in picture graphs.		Connections: Recognize weather data displayed as picture graphs.	Connections: Recognize data displayed in picture graphs and how such picture graphs can be used when families make choices and businesses provide goods and services.
		Standards: K.MDA.4		Standards: K.E.3A.1	Standards: K-4.3 K-4.4

Networks and the Internet	<b>Standard 4:</b> Understand how data can be used to make decisions.				
	K.DA.4.1: Draw conclusions and make predictions from picture graphs (e.g., make predictions based on weather data presented in a picture graph).	<b>Connections:</b> Draw conclusions and make predictions from picture graphs.	<b>Connections:</b> Draw conclusions and make predictions from picture graphs related to a text by asking and answering who, what, when, where, why, and how questions; and connect picture graphs to prior knowledge, pictures, illustrations, title, and information about author and illustrator.	<b>Connections:</b> Draw conclusions and make weather predictions from picture graphs.	<b>Connections:</b> Understand how businesses and families use information from picture graphs to draw conclusions and make predictions and use this information to provide goods and services and to fulfill their wants and needs.
		<b>Standards:</b> <i>K.MDA.4</i>	<b>Standards:</b> <i>K.RI.5.1</i> <i>K.RI.5.2</i>	<b>Standards:</b> <i>K.E.3A.1</i>	<b>Standards:</b> <i>K-4.3</i> <i>K-4.4</i>

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	<b>Standard 1:</b> Understand how computing devices have changed people's lives.				
	K.IC.1.1: List different ways in which computing devices are used in your daily life.				<b>Connections:</b> List different ways in which computing devices are used in your daily life related to communication among families, community businesses, and mapping services.
					<b>Standards:</b> <i>K-1</i> <i>K-4</i>
	K.IC.1.2: Discover how some tasks can be completed with or without a computing device.		<b>Connections:</b> Discover how some tasks can be completed with or without a computing device by engaging in daily opportunities for play and exploration to foster a sense of curiosity.	<b>Connections:</b> Discuss how humans complete some tasks with or without a computing device while other living things do not complete tasks with computing devices.	<b>Connections:</b> Discover how some tasks can be completed with or without a computing device for communication among families, authority figures, community business, and mapping services.
			<b>Standards:</b> <i>K.1.1.1</i>	<b>Standards:</b> <i>K.L.2A.6</i>	<b>Standards:</b> <i>K-1</i> <i>K-2</i> <i>K-4</i>

Impact of Computing	<b>Standard 2:</b> Discover how computing devices have affected the way people communicate.				
	K.IC.2.1: List different computing devices used for communication.		<b>Connections:</b> List different computing devices used for communication by exploring how ideas and topics are depicted in a variety of media and formats.	<b>Connections:</b> Discuss how different computing devices can solve different communication needs.	<b>Connections:</b> List different computing devices used for communication.
			<b>Standards:</b> <i>K.C.3.1</i>	<b>Standards:</b> <i>K.P.4A.3</i>	<b>Standards:</b> <i>K-4.2</i>

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Grade 1

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Digital Literacy	<b>Standard 1:</b> Use software applications to create an authentic product.				
	1.DL.1.1: Produce a simple sentence using word processing software.	<b>Connections:</b> Produce a simple sentence when comparing two two-digit numbers based on the meanings of the tens and ones digits, using the words greater than, equal to, or less than; and when explaining repeating and growing patterns.	<b>Connections:</b> Produce a simple sentence when using word processing software by demonstrating command of the conventions of Standard English grammar and usage including capitalization, punctuation, and spelling.	<b>Connections:</b> Produce a simple sentence using word processing software about light, the Sun, rocks, or plants.	<b>Connections:</b> Produce a simple sentence using word processing software about how families interact with their environment both locally and globally; how government functions and affects families; the principles of democracy and the role of citizens; and how individuals, families, and communities live and work together nationally and globally.
		<b>Standards:</b> <i>1.NSBT.3</i> <i>1.ATO.9</i>	<b>Standards:</b> <i>1.W.4</i> <i>1.W.5</i>	<b>Standards:</b> <i>1.P.2</i> <i>1.E.3</i> <i>1.E.4</i> <i>1.L.5</i>	<b>Standards:</b> <i>1-1</i> <i>1-2</i> <i>1-3</i> <i>1-4</i>



	1.DL.1.2: Create a simple presentation with text and/or image.		<b>Connections:</b> Create a simple presentation with text and/or image by expressing ideas gathered from various print and multimedia sources in a clear and concise manner; and by using visual displays to support verbal communication and clarify ideas, thoughts, and feelings.	<b>Connections:</b> Create a simple presentation about light, the Sun, rocks, or plants.	<b>Connections:</b> Create a presentation about how families interact with their environment both locally and globally; how government functions and affects families; the principles of democracy and the role of citizens; how individuals, families, and communities live and work together nationally and globally.
			<b>Standards:</b> <i>1.C.2.1</i> <i>1.C.3.2</i>	<b>Standards:</b> <i>1.P.2</i> <i>1.E.3</i> <i>1.E.4</i> <i>1.L.5</i>	<b>Standards:</b> <i>1-1</i> <i>1-2</i> <i>1-3</i> <i>1-4</i>
Digital Literacy	<b>Standard 2:</b> Learn the fundamentals of digital citizenship and appropriate use of digital media.				
	1.DL.2.1: Demonstrate appropriate behaviors toward others when using a connected computing device.		<b>Connections:</b> Demonstrate appropriate behaviors toward others when using connected computing devices to participate in shared conversations with varied partners.		<b>Connections:</b> Respect rules, as well as the rights, opinions and property of others, when using a connected computing device.
			<b>Standards:</b> <i>1.C.1.4</i>		<b>Standards:</b> <i>1-3.1</i>

	1.DL.2.2: Recognize and avoid harmful behaviors (e.g., sharing private information).			<b>Connections:</b> Recognize and avoid harmful digital media behaviors and compare them to behaviors that can harm the environment.	<b>Connections:</b> Recognize and avoid harmful behaviors by respecting rules, as well as the rights, opinions, and properties of others when illustrating the interdependence of family, school, and the community.
				<b>Standards:</b> 1.E.4B.2	<b>Standards:</b> 1-3.1 1-4.1
Digital Literacy	<b>Standard 3:</b> Exhibit responsibility when using connected computing devices.				
	1.DL.3.1: Demonstrate how to log in and log out from a connected computing device.				<b>Connections:</b> Communicate how to log in and log out from a connected computing device.
					<b>Standards:</b> 1-4.1
	1.DL.3.2: Recognize the importance of logging out from a connected computing device.				<b>Connections:</b> Recognize the importance of logging out from a connected computing device after communicating with others.
					<b>Standards:</b> 1-4.1

	1.DL.3.3: Recognize the difference between public and private information (e.g., personal information).				<b>Connections:</b> Recognize the difference between public and private information in the contexts of different elements of community life and the common methods of communication.
					<b>Standards:</b> 1-4.1

Digital Literacy	<b>Standard 4:</b> Demonstrate effective keyboarding skills on a computing device.				
	1.DL.4.1: Locate and use letter and number keys.	<b>Connections:</b> Locate and use letter and number keys when reading, writing, and representing numbers to 100 using standard form and expanded form; when writing in word form numbers zero through nineteen and multiples of ten through ninety; when comparing two two-digit numbers based on the meanings of the tens and ones digits, using the words <i>greater than</i> , <i>equal to</i> , or <i>less than</i> ; and when creating, extending, and explaining repeating and growing patterns using words.	<b>Connections:</b> Locate and use letter and number keys when writing, planning, revising, and editing informative, narrative, and argumentative writing.	<b>Connections:</b> Locate and use letter and number keys when writing about light, the Sun, rocks, or plants.	<b>Connections:</b> Locate and use letter and number keys when identifying a familiar area of the neighborhood or local community on an online map while using a legend and basic map symbols.
		<b>Standards:</b> <i>1.NSBT.2</i> <i>1.NSBT.3</i> <i>1.ATO.9</i>	<b>Standards:</b> <i>1.W.1</i> <i>1.W.2</i> <i>1.W.3</i>	<b>Standards:</b> <i>1.P.2</i> <i>1.E.3</i> <i>1.E.4</i> <i>1.L.5</i>	<b>Standards:</b> <i>1-1.1</i>

	1.DL.4.2: Demonstrate the location of the home row keys.	<b>Connections:</b> Demonstrate the location of the home row keys when writing and representing numbers to 100 using standard form and expanded form; when writing in word form numbers zero through nineteen and multiples of ten through ninety; when comparing two two-digit numbers based on the meanings of the tens and ones digits, using the words <i>greater than</i> , <i>equal to</i> , or <i>less than</i> ; and when explaining repeating and growing patterns using words.	<b>Connections:</b> Demonstrate the location of the home row keys when, planning, revising, and editing informative, narrative, and argumentative writing.	<b>Connections:</b> Demonstrate the location of the home row keys when writing about light, the Sun, rocks, or plants.	<b>Connections:</b> Demonstrate the location of the home row keys when identifying a familiar area of the neighborhood or local community on an online map using a legend and basic map symbols.
		<b>Standards:</b> <i>1.NSBT.2</i> <i>1.NSBT.3</i> <i>1.ATO.9</i>	<b>Standards:</b> <i>1.W.1</i> <i>1.W.2</i> <i>1.W.3</i>	<b>Standards:</b> <i>1.P.2</i> <i>1.E.3</i> <i>1.E.4</i> <i>1.L.5</i>	<b>Standards:</b> <i>1-1.1</i>

	1.DL.4.3: Develop proper keyboarding technique when keying letters and numbers (e.g., use both hands; utilize proper finger placement on home row keys; use letter and number keys).	<b>Connections:</b> Develop proper keyboarding technique when keying letters and numbers when writing and representing numbers to 100 using standard form and expanded form; when writing in word form numbers zero through nineteen and multiples of ten through ninety; when comparing two two-digit numbers based on the meanings of the tens and ones digits, using the words <i>greater than</i> , <i>equal to</i> , or <i>less than</i> ; and when explaining repeating and growing patterns using words.	<b>Connections:</b> Develop proper keyboarding technique when planning, revising, and editing informative, narrative, and argumentative writing.	<b>Connections:</b> Develop proper keyboarding technique when writing about light, the Sun, rocks, or plants.	<b>Connections:</b> Develop proper keyboarding technique when keying letters and numbers when identifying a familiar area of the neighborhood or local community on an online map using a legend and basic map symbols.
		<b>Standards:</b> <i>1.NSBT.2</i> <i>1.NSBT.3</i> <i>1.ATO.9</i>	<b>Standards:</b> <i>1.W.1</i> <i>1.W.2</i> <i>1.W.3</i>	<b>Standards:</b> <i>1.P.2</i> <i>1.E.3</i> <i>1.E.4</i> <i>1.L.5</i>	<b>Standards:</b> <i>1-1.1</i>

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	<b>Standard 1:</b> Understand that computing devices are used to perform a variety of tasks and take many forms.				
	1.CS.1.1: Identify tasks that can be performed with computing devices.	<b>Connections:</b> Identify tasks that can be performed with computing devices, such as telling time.	<b>Connections:</b> Identify tasks that can be performed with computing devices, such as translating wonderings into questions; developing a plan of action for collecting relevant information from multiple sources through play, sensory observation, texts, websites, and conversations with adults/peers; and drawing conclusions from relationships and patterns discovered during the inquiry process.		<b>Connections:</b> Identify tasks that can be performed with computing devices through the contexts of the interdependence of family, school, and the community; common methods of transportation and communication; and ways that families and businesses meet their needs and wants.
		<b>Standards:</b> <i>1.MDA.3</i>	<b>Standards:</b> <i>1.I.1.1</i> <i>1.I.3.1</i> <i>1.I.4.1</i>		<b>Standards:</b> <i>1-4.1</i> <i>1-4.3</i>

	1.CS.1.2: Recognize some computing devices (e.g., computer, smartphone) can perform a variety of tasks and some computing devices are specialized (e.g., navigation system, game controller).	<b>Connections:</b> Recognize some computing devices, such as a Fitbit, can perform a variety of tasks and some computing devices are specialized, such as a digital clock.	<b>Connections:</b> Use specialized computing devices to translate wonderings into questions; to collect relevant information from multiple sources through play, sensory observation, texts, websites, and conversations with adults/peers; and to facilitate discovery during the inquiry process.		<b>Connections:</b> Use specialized computing devices to illustrate common methods of transportation and communication; and to locate a familiar area of the neighborhood or local community on an online map using a legend and basic map symbols.
		<b>Standards:</b> 1.MDA.3	<b>Standards:</b> 1.1.1.1 1.1.3.1 1.1.4.1		<b>Standards:</b> 1-1.1 1-4.1



Computing Systems	<b>Standard 2:</b> Explore hardware (i.e., physical components) and software of computing systems.				
	1.CS.2.1: Use appropriate terminology in naming and identifying software (e.g., web browser, application).		<b>Connections:</b> Use appropriate terminology in naming and identifying software when collecting relevant information from multiple sources through play, sensory observation, texts, websites, and conversations with adults/peers.	<b>Connections:</b> Use appropriate terminology when referencing software used for writing or making presentations about light, the Sun, rocks, or plants.	
			<b>Standards:</b> <i>1.I.3.1</i>	<b>Standards:</b> <i>1.P.2</i> <i>1.E.3</i> <i>1.E.4</i> <i>1.L.5</i>	
	1.CS.2.2: Recognize that software acts on the input to affect the output (e.g., clicking on a mouse opens a program or application; typing on a keyboard displays letters on a screen).	<b>Connections:</b> Recognize that software acts on the input to affect the output similar to how mathematical operations affect numbers.		<b>Connections:</b> Recognize that input/output relationships of computing devices are similar to cause and effect relationships of plant growth.	
				<b>Standards:</b> <i>1.NSBT.4</i> <i>1.NSBT.5</i> <i>1.NSBT.6</i> <i>1.ATO.1</i> <i>1.ATO.2</i> <i>1.ATO.6</i> <i>1.ATO.7</i>	

Computing Systems	<b>Standard 3:</b> Recognize that computing systems might not work as expected because of hardware or software problems.				
	1.CS.3.1: Identify and describe simple hardware problems (e.g., headphones, keyboard, and/or mouse not plugged into the correct port).		<b>Connections:</b> Identify and describe simple hardware problems that may arise when translating wonderings into questions that lead to group conversations, explorations, and investigations; when developing a plan of action for collecting relevant information; and when reflecting on problems and taking action.		
			<b>Standards:</b> 1.1.1.1 1.1.3.1 1.1.4.1		

	1.CS.3.2: Identify and describe simple software problems (e.g., volume too soft/loud).		<p><b>Connections:</b> Identify and describe simple software problems that may arise when translating wonderings into questions that lead to group conversations, explorations, and investigations; when developing a plan of action for collecting relevant information; and when reflecting on problems and taking action.</p> <p><b>Standards:</b> 1.1.1.1 1.1.3.1 1.1.4.1</p>		
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South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	<b>Standard 1:</b> Discover that computing devices and the internet enable us to connect with other people, places, information, and ideas.				
	1.NI.1.1: Recognize that the internet can be used to gather information.	<b>Connections:</b> Recognize that the internet can be used to gather information such as two-dimensional online images of shapes (i.e., square, rectangle, triangle, hexagon, rhombus, trapezoid, circle).	<b>Connections:</b> Recognize that the internet can be used to gather information when developing a plan of action from multiple sources through play, sensory observations, texts, websites, and conversations with adults/peers.	<b>Connections:</b> Recognize that the internet can be used to gather information about light, the Sun, rocks, and plants.	<b>Connections:</b> Recognize that the internet can be used to gather information about ways that families and communities cooperate and compromise with one another in order to obtain goods and services.
		<b>Standards:</b> <i>1.G.4</i>	<b>Standards:</b> <i>1.I.3.1</i>	<b>Standards:</b> <i>1.P.2</i> <i>1.E.3</i> <i>1.E.4</i> <i>1.L.5</i>	<b>Standards:</b> <i>1-4.3</i>

	1.NI.1.2: Identify ways to connect with other people (e.g., direct message, voice talk, email, video chat).		<b>Connections:</b> Identify ways to connect with other people when exploring and creating meaning through conversation, drama, questioning, and story-telling; when participating in shared conversations with varied partners about focused grade level topics and texts in small and large groups; when explaining personal ideas and building on the ideas of others by responding and relating to comments made in multiple exchanges; and when participating in shared research exploring a variety of texts; when expressing opinions and talking about findings.	<b>Connections:</b> Identify ways to connect with other people to share information about light, the Sun, rocks, and plants.	<b>Connections:</b> Identify ways to connect with other people about different elements of community life, including typical jobs; the interdependence of family, school, and the community; and common methods of communication.
			<b>Standards:</b> 1.C.1.1 1.C.1.4 1.C.1.5 1.C.2.2	<b>Standards:</b> 1.P.2 1.E.3 1.E.4 1.L.5	<b>Standards:</b> 1-4.1

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	Standard 1: Discover how data can be stored in and retrieved from multiple locations.				
	1.DA.1.1: Recognize that a variety of data (e.g., music, video, images, text) can be stored in and retrieved from a computing device.	Connections: Recognize that a variety of data, such as data represented through picture graphs, bar graphs, and images, can be stored in and retrieved from a computing device.		Connections: Recognize that data about light, the Sun, rocks, and plants can be stored in and retrieved from computing devices.	Connections: Recognize that a variety of data can be stored in and retrieved from a computing device when comparing schools and neighborhoods that are located in different settings around the world and the ways that people use land and natural resources in different settings around the world.
		Standards: 1.MDA.4		Standards: 1.P.2 1.E.3 1.E.4 1.L.5	Standards: 1-1.2 1-1.4
Data and Analysis	Standard 2: Explore how computing devices collect and display data.				
	1.DA.2.1: Identify computing devices (e.g., digital thermometer, video game) that collect and display data.	Connections: Identify computing devices that collect and display data, such as an online mathematics program or game.		Connections: Use a thermometer to measure the warming effect of the Sun.	
		Standards: All grade-level standards for this content area can apply.		Standards 1.E.3A.5	

Data and Analysis	<b>Standard 3:</b> Explore how data can be displayed for communication in many ways.				
	1.DA.3.1: Recognize data displayed in picture graphs, T-charts, tallies, and bar graphs.	<b>Connections:</b> Recognize data with up to three categories displayed in picture graphs, T-charts, tallies and bar graphs.	<b>Connections:</b> Recognize data displayed in picture graphs, T-charts, tallies, and bar graphs can relate to and support asking and answering of who, what, when, where, why, and how questions to demonstrate understanding of a text; using of key details to make inferences and draw conclusions in texts heard or read; making predictions; using prior knowledge, pictures, illustrations, title, and information about author and illustrator; and identifying words, phrases, illustrations, and photographs used to provide information.	<b>Connections:</b> Recognize displays of data about seasonal patterns.	<b>Connections:</b> Recognize data displayed in picture graphs, T-charts, tallies, and bar graphs to explain the concept of scarcity and the way it forces individuals and families to make choices about which goods and services they can obtain.
		<b>Standards:</b> <i>1.MDA.4</i>	<b>Standards:</b> <i>1.RI.5.1</i> <i>1.RI.5.2</i> <i>1.RI.8.1</i>	<b>Standards:</b> <i>1.E.3A.1</i> <i>1.E.3A.2</i>	<b>Standards:</b> <i>1-4.4</i>

Data and Analysis	<b>Standard 4:</b> Understand how data can be used to make decisions.				
	1.DA.4.1: Draw conclusions and make predictions from different types of graphs (i.e., object graphs, picture graphs, bar graphs).	<b>Connections:</b> Draw conclusions and make predictions from different types of graphs (i.e., object graphs, picture graphs, bar graphs).	<b>Connections:</b> Draw conclusions and make predictions from different types of graphs to ask and answer who, what, when, where, why and how questions to demonstrate understanding of a text.	<b>Connections:</b> Draw conclusions and analyze data about seasonal patterns, properties of Earth materials, and the effects of the environment on plants.	<b>Connections:</b> Draw conclusions and make predictions from different types of graphs that relate to the concept of scarcity and the way it forces individuals and families to make choices about which goods and services they can obtain.
		<b>Standards:</b> <i>1.MDA.5</i>	<b>Standards:</b> <i>1.RI.5.1</i>	<b>Standards:</b> <i>1.E.3A.1</i> <i>1.E.4A.1</i> <i>1.L.5B.3</i>	<b>Standards:</b> <i>1-4.4</i>



South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	<b>Standard 1:</b> Understand how computing devices have changed people's lives.				
	1.IC.1.1: Recognize that many different careers use computing devices.		<b>Connections:</b> Recognize that many different careers use computing devices by engaging in daily explorations of texts and making connections to personal experiences, other texts, or the environment.	<b>Connections:</b> Discuss careers that use computing devices to study light, the Sun, rocks, and plants (e.g., meteorologist, geologist, botanist).	<b>Connections:</b> Recognize that many different careers use computing devices and relate this to the daily lives of families in America and across the world and the ways in which families earn a living.
			<b>Standards:</b> 1.I.2.1	<b>Standards:</b> 1.P.2 1.E.3 1.E.4 1.L.5	<b>Standards:</b> 1-4.2
	1.IC.1.2: Describe how some tasks can be completed with or without a computing device.		<b>Connections:</b> Describe how some tasks can be completed with or without a computing device by articulating the thinking process.		<b>Connections:</b> Relate the tasks that can be completed with or without a computing device to different elements of community life, including typical jobs; the interdependence of family, school, and the community; and common methods of transportation and communication.
			<b>Standards:</b> 1.I.5.3		<b>Standards:</b> 1-4.1

Impact of Computing	<b>Standard 2:</b> Discover how computing devices have affected the way people communicate.				
	1.IC.2.1: Describe the different ways people can communicate using computing devices.		<b>Connections:</b> Describe the different ways people can communicate using computing devices by articulating the thinking process; by exploring and creating meaning through conversation, drama, questioning, and story-telling; by participating in shared conversations with varied partners about focused grade level topics and texts in small and large groups; by explaining personal ideas and building on the ideas of others by responding and relating to comments made in multiple exchanges; by participating in shared research exploring a variety of texts; and by expressing opinions and talking about findings.		<b>Connections:</b> Describe the different ways people can communicate using computing devices when communicating about different elements of community life, including typical jobs; the interdependence of family, school, and the community; and common methods of transportation and communication.
			<b>Standards:</b> 1.I.5.3 1.C.1.1 1.C.1.4 1.C.1.5 1.C.2.2		<b>Standards:</b> 1-4.1

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Grade 2

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Digital Literacy	<b>Standard 1:</b> Use software applications to create an authentic product.				
	2.DL.1.1: Create text documents using a word processing program.	<b>Connections:</b> Create text documents using a word processing program to explain the reasoning used when determining the number that is 10 or 100 more or less than a given number through 1,000; and to explain how and why the measurements differ when measuring the same object or distance using a standard unit of one length and then a standard unit of a different length.	<b>Connections:</b> Create text documents using a word processing program when writing opinions, informative/explanatory texts, and narratives.	<b>Connections:</b> Create text documents using a word processing program when writing about weather, solids and liquids, pushes and pulls, and animals.	<b>Connections:</b> Create text documents using a word processing program when demonstrating an understanding of the development of the local community through the contexts of geography and environmental interactions; governmental understanding; economics; and United States cultural contributions.
		<b>Standards:</b> 2.NSBT.8 2.MDA.2	<b>Standards:</b> 2.W.1 2.W.2 2.W.3	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-1 2-2 2-3 2-4

	2.DL.1.2: Format a text document using a word processing program (e.g., change font style, including underline, italicize, bold; change font size).	<b>Connections:</b> Format a text document using a word processing program when explaining the reasoning used to determine the number that is 10 or 100 more or less than a given number through 1,000; and when explaining how and why the measurements differ when measuring the same object or distance using a standard unit of one length and then a standard unit of a different length.	<b>Connections:</b> Format a text document using a word processing program when writing.	<b>Connections:</b> Format text documents using a word processing program when writing about weather, solids and liquids, pushes and pulls, and animals.	<b>Connections:</b> Format a text document using a word processing program when demonstrating an understanding of the development of the local community through the contexts of geography and environmental interactions; governmental understanding; economics; and United States cultural contributions.
		<b>Standards:</b> 2.NSBT.8 2.MDA.2	<b>Standards:</b> 2.W.1 2.W.2 2.W.3	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-1 2-2 2-3 2-4

	2.DL.1.3: Create a multi-slide presentation with graphics or images using presentation software (e.g., create a new slide; rearrange slides).		<b>Connections:</b> Create a multi-slide presentation with graphics or images using presentation software to support verbal communication and clarify ideas, thoughts, and feelings.	<b>Connections:</b> Create multi-slide presentations about weather, solids and liquids, pushes and pulls, and animals using presentation software.	<b>Connections:</b> Create a multi-slide presentation with graphics or images using presentation software when demonstrating an understanding of the development of the local community through the contexts of geography and environmental interactions; governmental understanding; economics; and United States cultural contributions.
			<b>Standards:</b> 2.C.3.1	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-1 2-2 2-3 2-4

Digital Literacy	<b>Standard 2:</b> Learn the fundamentals of digital citizenship and appropriate use of digital media.				
	2.DL.2.1: Demonstrate how to use appropriate behavior when sending messages online.				<b>Connections:</b> Demonstrate how to use appropriate behavior when sending messages online about making and enforcing laws and protecting citizens; recognizing different types of laws and the people who have the power and authority to enforce them; and identifying the roles of leaders and officials in government, including law enforcement and public safety officials.
					<b>Standards:</b> 2-2.1 2-2.2 2-2.3

	2.DL.2.2: Recognize how to credit work found online (e.g., image, photograph).	<p><b>Connections:</b> Recognize how to credit work found online when identifying and saving online images of triangles, quadrilaterals, hexagons, and cubes; and when collecting, organizing, and representing data with up to four categories using online images to create picture graphs with a single-unit scale.</p> <p>When measuring length/distance in customary units (inch, foot, yard) and metric units (centimeter, meter), it is important and necessary to include the unit. Similarly, when using images found online, proper credit should be provided.</p>		<p><b>Connections:</b> Recognize how to credit work found online in reference to weather, solids and liquids, pushes and pulls, and animals.</p>	<p><b>Connections:</b> Recognize how to credit work found online in regards to making and enforcing laws and protecting citizens, as well as recognizing different types of laws and those people who have the authority to enforce them.</p>
		<p><b>Standards:</b> 2.G.1 2.MDA.9 2.MDA.3</p>		<p><b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5</p>	<p><b>Standards:</b> 2-2.1 2-2.2</p>

Digital Literacy	<b>Standard 3:</b> Exhibit responsibility when using connected computing devices.				
	2.DL.3.1: Identify the characteristics of a strong password.				<b>Connections:</b> Identify the characteristics of a strong password and relate them to the basic functions of government, including protecting citizens.
					<b>Standards:</b> 2-2.1
	2.DL.3.2: Discuss the effects of password misuse.				<b>Connections:</b> Discuss the effects of password misuse and how such misuse connects to making and enforcing laws.
					<b>Standards:</b> 2-2.1



Digital Literacy	<b>Standard 4:</b> Demonstrate effective keyboarding skills on a computing device.				
	2.DL.4.1: Locate and use letter, number, and punctuation keys.	<b>Connections:</b> Locate and use letter, number, and punctuation keys when writing numbers through 999 in standard form and equations in expanded form; comparing two numbers with up to three digits using words and symbols; adding and subtracting fluently through 99; determining the number that is 10 or 100 more or less than a given number through 1,000 and explaining the reasoning in writing; and measuring the same object or distance using a standard unit of one length and then a standard unit of a different length and explain in writing how and why the measurements differ.	<b>Connections:</b> Locate and use letter, number, and punctuation keys when writing opinions, informative/explanatory writing, and narratives.	<b>Connections:</b> Locate and use correct letter, number, and punctuation keys when creating text or presentations about weather, solids and liquids, pushes and pulls, and animals.	<b>Connections:</b> Locate and use letter, number, and punctuation keys when identifying on an online map the location of places and geographic features of the local community while using a legend and cardinal directions; and identifying on an online map the location of his or her local community, state, nation, and continent.
		<b>Standards:</b> 2.NSBT.3 2.NSBT.4 2.NSBT.5 2.NSBT.8 2.MDA.2	<b>Standards:</b> 2.W.1 2.W.2 2.W.3	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-1.1 2-1.5

	2.DL.4.2: Demonstrate the use of function keys (e.g., shift, enter, backspace, delete, spacebar)	<b>Connections:</b> Demonstrate the use of function keys when writing numbers through 999 in standard form and equations in expanded form; comparing two numbers with up to three digits using words and symbols; adding and subtracting fluently through 99; determining the number that is 10 or 100 more or less than a given number through 1,000 and explaining the reasoning in writing; and measuring the same object or distance using a standard unit of one length and then a standard unit of a different length and explain in writing how and why the measurements differ.	<b>Connections:</b> Demonstrate the use of function keys when writing opinions, informative/explanatory writing, and narratives.	<b>Connections:</b> Demonstrate the use of function keys when creating text or presentations about weather, solids and liquids, pushes and pulls, and animals.	
		<b>Standards:</b> 2.NSBT.3 2.NSBT.4 2.NSBT.5 2.NSBT.8 2.MDA.2	<b>Standards:</b> 2.W.1 2.W.2 2.W.3	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	

	2.DL.4.3: Develop proper keyboarding technique when keying letters, numbers, and symbols (e.g., use both hands; utilize proper finger placement on home row keys; use letter, number, and punctuation keys).	<b>Connections:</b> Develop proper keyboarding technique when keying letters, number and symbols while writing numbers through 999 in standard form and equations in expanded form; comparing two numbers with up to three digits using words and symbols; adding and subtracting fluently through 99; determining the number that is 10 or 100 more or less than a given number through 1,000 and explaining the reasoning in writing; and measuring the same object or distance using a standard unit of one length and then a standard unit of a different length and explain in writing how and why the measurements differ.	<b>Connections:</b> Develop proper keyboarding technique when keying letters, numbers, and symbols when writing opinions, informative/explanatory writing, and narratives.	<b>Connections:</b> Develop proper keyboarding technique when keying letters, numbers, and symbols when creating text or presentations about weather, solids and liquids, pushes and pulls, and animals.	
		<b>Standards:</b> 2.NSBT.3 2.NSBT.4 2.NSBT.5 2.NSBT.8 2.MDA.2	<b>Standards:</b> 2.W.1 2.W.2 2.W.3	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	<b>Standard 1:</b> Understand that computing devices are used to perform a variety of tasks and take many forms.				
	2.CS.1.1: Classify computing devices according to purpose (e.g., navigation, game, communication, all-purpose).	<b>Connections:</b> Classify computing devices according to purpose when collecting, organizing, and representing data with up to four categories using picture graphs and bar graphs with a single-unit scale.	<b>Connections:</b> Classify computing devices according to purpose by interpreting relationships and patterns discovered during the inquiry process.	<b>Connections:</b> Classify the computing devices that may warn of severe weather (e.g., weather applications, weather radio, sirens).	
		<b>Standards:</b> 2.MDA.9	<b>Standards:</b> 2.I.4.1	<b>Standards:</b> 2.E.2A.4	
	2.CS.1.2: Recognize that computing devices have limitations (e.g., printing, screen size, mobility).	<b>Connections:</b> Recognize that computing devices have limitations as do measuring tools used to measure the length of an object.		<b>Connections:</b> Recognize that severe weather warning devices have limitations (e.g., they cannot tell people what is happening at their specific addresses at a real moment in time).	
		<b>Standards:</b> 2.MDA.1		<b>Standards:</b> 2.E.2A.4	

	2.CS.1.3 : Choose the appropriate computing device to complete a given task.	<b>Connections:</b> Choose the appropriate computing device to tell and record time to the nearest five-minute interval using <i>a.m.</i> and <i>p.m.</i>	<b>Connections:</b> Choose the appropriate computing device to complete a given task by using appropriate tools to communicate findings and/or take informed action.	<b>Connections:</b> Discuss computing devices related to weather, solids and liquids, pushes and pulls, and animals' environments.	
		<b>Standards:</b> 2.MDA.6	<b>Standards:</b> 2.I.4.2	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	
Computing Systems	<b>Standard 2:</b> Explore hardware (i.e., physical components) and software of computing systems.				
	2.CS.2.1 : Describe the function of common computing devices and components (e.g., desktop computer, laptop computer, tablet, monitor, keyboard, mouse, printer).	<b>Connections:</b> Describe the function of common computing devices and components when discussing the tools used to measure length and time.			
		<b>Standards:</b> 2.MDA.1 2.MDA.6			
	2.CS.2.2 : Recognize software that controls computing devices (e.g., use an application to draw on the screen; use software to write a story or control robots).			<b>Connections:</b> Recognize software that controls computing devices, such as applications that show weather predictions, probes that measure temperature, and cameras that show animals in their natural habitat.	
				<b>Standards:</b> 2.E.2A.1 2.P.3A.3 2.L.5A.3	

	2.CS.2.3 : Use appropriate hardware and software to complete a given task.	<b>Connections:</b> Use appropriate hardware and software to complete a given task, such as creating a text document when explaining mathematical thinking or finding images online to use for shapes when creating a picture graph.	<b>Connections:</b> Use appropriate hardware and software to write opinions, informative/explanatory writing, and narratives.	<b>Connections:</b> Use appropriate hardware and software to write about or display information about weather, matter, forces, and animals.	<b>Connections:</b> Use appropriate hardware and software to complete a given task when demonstrating an understanding of development of the local community through the contexts of geography and environmental interactions; governmental understanding; economics; and United States cultural contributions.
		<b>Standards:</b> 2.NSBT.3 2.NSBT.4 2.NSBT.5 2.NSBT.8 2.MDA.2 2.G.1 2.MDA.9	<b>Standards:</b> 2.W.1 2.W.2 2.W.3	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-1 2-2 2-3 2-4
Computing Systems	<b>Standard 3:</b> Recognize that computing systems might not work as expected because of hardware or software problems.				
	2.CS.3.1 : Recognize the difference between a simple hardware problem and a simple software problem (e.g., sound problem can mean headphones are unplugged (hardware) or sound is muted (software)).		<b>Connections:</b> Recognize the difference between a simple hardware problem and a simple software problem by interpreting relationships and patterns discovered during the inquiry process.  <b>Standards:</b> 2.I.4.1		

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	<b>Standard 1:</b> Discover that computing devices and the internet enable us to connect with other people, places, information, and ideas.				
	2.NI.1.1 : Gather information from the internet with supervision.	<b>Connections:</b> Gather information, such as images of triangles, quadrilaterals, hexagons, and cubes, from the internet with supervision.	<b>Connections:</b> Gather information from the internet with supervision by developing a plan of action for collecting information from multiple sources through play, observation, texts, websites, and conversations with adults and peers.	<b>Connections:</b> Gather information from the internet in regards to weather, matter, forces, and animals with supervision.	<b>Connections:</b> Gather information from the internet with supervision when demonstrating an understanding of development of the local community through the contexts of geography and environmental interactions; governmental understanding; economics; and United States cultural contributions.
		<b>Standards:</b> 2.G.1	<b>Standards:</b> 2.I.3.1	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-1 2-2 2-3 2-4

	2.NI.1.2 : Identify email as one way to communicate digitally.		<b>Connections:</b> Identify email as one way to communicate digitally by selecting the most important information, revising ideas, and recording and communicating findings; and by using appropriate tools to communicate findings and/or take informed action.	<b>Connections:</b> Identify email as one way to communicate digitally about weather, matter, forces, and animals.	<b>Connections:</b> Identify email as one way to communicate digitally when recognizing the basic elements that make up a cultural region in the United States, including language.
			<i>Standards</i> 2.I.3.2 2.I.4.2	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-4.1



	2.NI.1.3 : Use technology to work cooperatively and collaboratively with peers, teachers, and others.		<b>Connections:</b> Use technology to work cooperatively and collaboratively with peers, teachers, and others by acknowledging and valuing individual and collective thinking; to apply the skills of taking turns, listening to others, and speaking clearly; to use technology to articulate ideas and information gathered from various print and multimedia sources in a concise manner that maintains a clear focus.	<b>Connections:</b> Use technology to work cooperatively to develop charts about weather, matter, forces, or animals.	<b>Connections:</b> Use technology to work cooperatively and collaboratively with peers, teachers, and others when performing tasks in which he or she demonstrates an understanding of development of the local community through the contexts of geography and environmental interactions; governmental understanding; economics; and United States cultural contributions.
			<b>Standards:</b> 2.I.5.1 2.C.1.2 2.C.2.1	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-1 2-2 2-3 2-4

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	<b>Standard 1:</b> Discover how data can be stored in and retrieved from multiple locations.				
	2.DA.1.1: Recognize where data is stored (i.e., on the computing device or elsewhere).	<b>Connections:</b> Recognize where data organized as picture graphs and bar graphs is stored.			
		<b>Standards:</b> 2.MDA.8 2.MDA.9			
	2.DA.1.2: Store data (e.g., image, music) to a computing device.	<b>Connections:</b> Store data organized as picture graphs and bar graphs to a computing device.	<b>Connections:</b> Store data to a computing device when writing and creating a simple presentation.	<b>Connections:</b> Store scientific data to a computing device.	<b>Connections:</b> Store data to a computing device when working on projects related to demonstrating an understanding of development of the local community through the contexts of geography and environmental interactions; governmental understanding; economics; and United States cultural contributions.
		<b>Standards:</b> 2.MDA.8 2.MDA.9	<b>Standards:</b> 2.W.1 2.W.2 2.W.3 2.C.3.2	<b>Standards:</b> 2.E.2 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-1 2-2 2-3 2-4

	2.DA.1.3: Retrieve data (e.g., image, music) from a computing device.	<b>Connections:</b> Retrieve data organized as picture graphs and bar graphs from a computing device.	<b>Connections:</b> Retrieve data from a computing device when writing or preparing a simple presentation.	<b>Connections:</b> Retrieve scientific data, such as weather charts, from a computing device.	
		<b>Standards:</b> 2.MDA.8 2.MDA.9	<b>Standards:</b> 2.W.1 2.W.2 2.W.3 2.C.3.2	<b>Standards:</b> 2.E.2A.1 2.E.2A.2	
Data and Analysis	<b>Standard 2:</b> Explore how computing devices collect and display data.				
	2.DA.2.1: Identify different ways and tools to collect data.	<b>Connections:</b> Identify different ways and tools to collect data when selecting and using appropriate tools to measure the length of an object and using analog and digital clocks to tell and record time to the nearest five-minute interval using <i>a.m.</i> and <i>p.m.</i>		<b>Connections:</b> Identify different ways and tools (i.e., thermometers, rulers, and scales) to collect data.	<b>Connections:</b> Identify different ways and tools to collect data on the structure and function of local, state, and national government.
		<b>Standards:</b> 2.MDA.1 2.MDA.6		<b>Standards:</b> 2.L.3 2.P.3 2.P.4 2.L.5	<b>Standards:</b> 2-2
	2.DA.2.2: Collect, organize, and display data using object graphs, picture graphs, and bar graphs.	<b>Connections:</b> Collect, organize, and display data with up to four categories using object graphs, picture graphs, and bar graphs with a single-unit scale.	<b>Connections:</b> Collect, organize, and display data using object graphs, picture graphs, and bar graphs when creating a simple presentation.	<b>Connections:</b> Collect, organize, and display weather data using object graphs, picture graphs, and bar graphs.	<b>Connections:</b> Collect, organize, and display data using object graphs, picture graphs, and bar graphs related to the structure and function of local, state, and national government.
		<b>Standards:</b> 2.MDA.9		<b>Standards:</b> 2.E.2A.1 2.E.2A.2	<b>Standards:</b> 2-2

Data and Analysis	<b>Standard 3:</b> Explore how data can be displayed for communication in many ways.				
	2.DA.3.1: Recognize how different data displays communicate information in different ways.	<b>Connections:</b> Recognize how different data displays such as T-charts, object graphs, picture graphs, and bar graphs communicate information in different ways.	<b>Connections:</b> Recognize how different data displays communicate information in different ways and explain how topics are depicted in a variety of media and formats.	<b>Connections:</b> Recognize how different data displays of weather data communicate information in different ways.	<b>Connections:</b> Recognize how different data displays about the structure and function of local, state, and national government communicate information in different ways.
		<b>Standards:</b> 2.MDA.9 2.MDA.10	<b>Standards:</b> 2.C.3.1	<b>Standards:</b> 2.E.2A.1 2.E.2A.2	<b>Standards:</b> 2-2
	2.DA.3.2: Transform data into a new representation (i.e., object graphs, picture graphs, bar graphs, charts).	<b>Connections:</b> Transform data into a new representation (i.e., object graphs, picture graphs, and bar graphs)	<b>Connections:</b> Transform data into a new representation by articulating ideas and information gathered from various print and multimedia sources in a concise manner that maintains clear focus.	<b>Connections:</b> Transform weather data into a new representation.	<b>Connections:</b> Transform data into a new representation on the structure and function of local, state, and national government.
		<b>Standards:</b> 2.MDA.9 2.MDA.10	<b>Standards:</b> 2.C.2.1	<b>Standards:</b> 2.E.2A.1 2.E.2A.2	<b>Standards:</b> 2-2

<b>Data and Analysis</b>	<b>Standard 4:</b> Understand how data can be used to make decisions.				
	2.DA.4.1: Draw conclusions and make predictions from different types of graphs (i.e., picture graphs, bar graphs).	<b>Connections:</b> Draw conclusions and make predictions from different types of graphs (i.e., picture graphs, bar graphs).	<b>Connections:</b> Draw conclusions and make predictions from different types of graphs by asking and answering literal and inferential questions to demonstrate understanding of a text; using specific details to make inferences and draw conclusions in texts heard or read.	<b>Connections:</b> Draw conclusions, analyze data, and make predictions from different types of graphs about weather, matter, forces, and animals.	<b>Connections:</b> Draw conclusions and make predictions from different types of graphs related to the structure and function of local, state, and national government.
		<b>Standards:</b> <i>2.MDA.10</i>	<b>Standards:</b> <i>2.RI.5.1</i>	<b>Standards:</b> <i>2.L.3</i> <i>2.P.3</i> <i>2.P.4</i> <i>2.L.5</i>	<b>Standards:</b> <i>2-2</i>

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	<b>Standard 1:</b> Understand how computing devices have changed people's lives.				
	2.IC.1.1: Identify the ways that computing has changed throughout society.				<b>Connections:</b> Identify the ways that computing has changed throughout society when summarizing changes that have occurred in the local community over time, including the ways people earn their living; and when explaining how people and businesses make economic decisions.
	2.IC.1.2: Demonstrate how some tasks can be completed with or without a computing device.				<b>Standards:</b> 2-1.4 2-3.2 2-3.3 2-3.4 2-3.5

	<b>Standard 2:</b> Discover how computing devices have affected the way people communicate.				
	2.IC.2.1: Explore similarities and differences between in-person and online communications.				<b>Connections:</b> Explore similarities and differences between in-person and online communications by summarizing changes that have occurred in the local community over time, including the ways people earn their living; and by recognizing the basic elements that make up a cultural region in the United States.
					<b>Standards:</b> 2-1.4 2-4.1 2-4.2

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Grade 3

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Digital Literacy	<b>Standard 1:</b> Use software applications to create an authentic product.				
	3.DL.1.1: Create documents (e.g., essays, letters) using a word processing program.	<b>Connections:</b> Create documents to explain the relationship between a three-dimensional shape and its net.	<b>Connections:</b> Write arguments, narratives, and informative pieces using a word processing program.	<b>Connections:</b> Create a document to communicate observations, explanations, and information.	<b>Connections:</b> Create a letter written from the perspective of a significant person associated with South Carolina's history documenting evidence of their daily life.
		<b>Standards:</b> 3.G.4	<b>Standards:</b> 3.W.1 3.W.2 3.W.3	<b>Standards:</b> 3.S.1A.8 3.P.2A.4 3.P.3A.1 3.E.4A.3 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-2 3-3 3-4 3-5



	3.DL.1.2: Edit and format a document using a word processing program to check spelling, change fonts, and change margins.	<b>Connections:</b> Use a word processing program to edit a document explaining the relationship between a three-dimensional shape and its net.	<b>Connections:</b> Use a word processing program to edit and revise narrative, opinion, and informative writing.	<b>Connections:</b> Revise and edit a document of observations and explanations with a word processing program to evaluate and communicate information.	<b>Connections:</b> Use a word processing program to edit and format a document categorizing the six landform regions of South Carolina.
		<b>Standards:</b> 3.G.4	<b>Standards:</b> 3.W.1 3.W.2 3.W.3	<b>Standards:</b> 3.S.1A.8 3.P.2A.4 3.P.3A.1 3.E.4A.3 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-1.1
	3.DL.1.3: Format a presentation using presentation software to insert an image/video, change background colors, and change text color.		<b>Connections:</b> Create and format a presentation in order to present ideas and information from research.	<b>Connections:</b> Create and format a presentation to present ideas and information from research, observations, and explanations.	<b>Connections:</b> Create and format a presentation to present information regarding student research of South Carolina history.
			<b>Standards:</b> 3.C.3.2	<b>Standards:</b> 3.S.1A.8 3.P.2A.4 3.P.3A.1 3.E.4A.3 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5

	3.DL.1.4: Understand that bullets are a way to organize a list.		<b>Connections:</b> Organize supporting reasons for an argument using a bulleted list.	<b>Connections:</b> Organize questions, explanations, and research using a bulleted list when conducting research and developing and refining models.	<b>Connections:</b> Use a bulleted list to organize information related to the culture, governance, and physical environment of the Cherokee, Catawba, and Yemassee tribal groups.
			<b>Standards:</b> <i>3.W.1.1.c</i>	<b>Standards:</b> <i>3.S.1A.1</i> <i>3.S.1A.2</i> <i>3.S.1A.8</i> <i>3.P.2A.4</i> <i>3.P.3A.1</i> <i>3.E.4A.3</i> <i>3.E.4B.3</i> <i>3.L.5B.1</i> <i>3.P.3A.2</i> <i>3.P.3B.1</i> <i>3.E.4A.2</i> <i>3.E.4B.1</i> <i>3.L.5A.2</i> <i>3.L.5B.2</i>	<b>Standards:</b> <i>3-2.1</i>
Digital Literacy	<b>Standard 2:</b> Demonstrate an awareness of fundamentals of digital citizenship.				
	3.DL.2.1: Demonstrate proper digital etiquette appropriate to the medium (e.g., not using all capital letters in an email).		<b>Connections:</b> Use appropriate writing styles based on the audience.	<b>Connections:</b> Demonstrate proper digital etiquette to the medium when obtaining and communicating to and from professionals. (See 3.NI.2.1.)	<b>Connections:</b> Demonstrate proper digital etiquette when communicating or obtaining information regarding South Carolina history.
	<b>Standards:</b> <i>3.W.6.1.c</i>		<b>Standards:</b> <i>3.S.1A.8</i> <i>3.P.2A.4</i> <i>3.P.3A.1</i> <i>3.E.4B.3</i> <i>3.L.5B.1</i> <i>3.E.4A.3</i>	<b>Standards:</b> <i>3-1</i> <i>3-2</i> <i>3-3</i> <i>3-4</i> <i>3-5</i>	

	3.DL.2.2: Recognize the disparity with regards to access to technology around the world and discuss ways in which digital equality may be reached.		<b>Connections:</b> Generate possible explanations for the disparity with regards to access to technology around the world and discuss ways in which digital equality may be reached.		
			<b>Standards:</b> 3.I.2.1		
Digital Literacy	<b>Standard 3:</b> Demonstrate responsibility when using connected computing devices.				
	3.DL.3.1: Understand the importance of acceptable use policies (e.g., to enforce safe internet usage among all members of the community).		<b>Connections:</b> Develop a plan for collecting information from primary and secondary sources that shows an understanding of acceptable use policies.		<b>Connections:</b> Understand the importance of acceptable use policies when researching information related to student study of South Carolina history.
			<b>Standards:</b> 3.I.3.1		<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5

	3.DL.3.2: Distinguish between online content that is open and free to use and content that is protected by copyright.	<b>Connections:</b> Distinguish between open and free content and content that is protected by copyright when selecting images of shapes and nets.	<b>Connections:</b> Determine appropriate primary and secondary sources while conducting inquiry-based research.	<b>Connections:</b> Distinguish between open and free to use and copyright information when obtaining information on specific grade-level standards (e.g., comparing different processes serve as sources of heat energy).	<b>Connections:</b> Distinguish between open and free to use content and content that is protected by copyright when researching information related to student study of South Carolina history.
		<b>Standards:</b> 3.G.4	<b>Standards:</b> 3.I.3.1 3.I.4.3	<b>Standards:</b> 3.S.1A.8 3.P.2A.4 3.P.3A.1 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5
	3.DL.3.3: Understand the notion of “digital footprint” and the permanence and trackability associated with online communication (e.g., email, social media).		<b>Connections:</b> Explore the topic of “digital footprints” and the permanence and trackability associated with online communication to formulate questions and build knowledge.		<b>Connections:</b> Understand the notion of “digital footprint” and the permanence and trackability associated with online communication when researching information related to student study of South Carolina history.
			<b>Standards:</b> 3.I.2.1		<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5

Digital Literacy	<b>Standard 4:</b> Demonstrate effective keyboarding skills on a computing device.				
	3.DL.4.1: Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 5 words per minute.	<b>Connections:</b> Demonstrate proper keyboarding technique when keying numbers through 999,999 in standard form and equations in expanded form.	<b>Connections:</b> Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 5 words per minute.	<b>Connections:</b> Demonstrate proper keyboarding techniques when creating documents and presentations for scientific explanations.	<b>Connections:</b> Demonstrate proper keyboarding technique when creating documents and presentations related to student study of South Carolina history.
		<b>Standards:</b> 3.NSBT.4	<b>Standards:</b> 3.W.6.4	<b>Standards:</b> 3.S.1A.8 3.P.2A.4 3.P.3A.1 3.E.4A.3 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5
	3.DL.4.2: Use software capabilities to correct errors.	<b>Connections:</b> Correct errors when keying numbers through 999,999.	<b>Connections:</b> Use software to edit and revise opinions, narratives, and informative pieces.	<b>Connections:</b> Correct errors when demonstrating proper keyboarding techniques by communicating scientific information.	<b>Connections:</b> Use software capabilities to correct errors when creating documents and presentations related to student study of South Carolina history.
		<b>Standards:</b> 3.NSBT.4	<b>Standards:</b> 3.W.1 3.W.2 3.W.3	<b>Standards:</b> 3.S.1A.8 3.P.2A.4 3.P.3A.1 3.E.4A.3 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	Standard 1: Identify and analyze various components and functions of computing devices (e.g., tablets, laptops, smartphones).				
	3.CS.1.1: Compare and contrast computing devices (e.g., tablets, laptops, smartphones).	Connections: Compare and contrast computing devices by noting the location and accessibility of numbers.	Connections: Write informative texts to compare and contrast computing devices.		
		Standards: 3.NSBT.3	Standards: 3.W.2.1.a		
	3.CS.1.2: Identify the parts of a computing device (e.g., input devices, output devices, processors).		Connections: Support informative writing with illustrations that identify the parts of a computing device.		
			Standards: 3.W.2.1.c		
Computing Systems	Standard 2: Analyze the various types and functions of software.				
	3.CS.2.1: Identify actions (e.g., opening a file; closing a window) that are specific to an operating system (e.g., Windows, MacOS, Android, iOS).		Connections: Create presentations to demonstrate actions specific to operating systems.		
			Standards: 3.C.3.2		

	3.CS.2.2: Compare operating systems to application software (e.g., word processor, spreadsheet, presentation software, web browser).	<b>Connections:</b> Compare operating systems, such as computers and calculators, when solving mathematics facts, and discuss how software varies on each computing device.	<b>Connections:</b> Compare operating systems and application software through a discussion with peers and adults.		
		<b>Standards:</b> 3.ATO.1 3.ATO.2	<b>Standards:</b> 3.C.1.1		
South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	<b>Standard 1:</b> Explore different ways a computer connects to the internet and other computing devices.				
	3.NI.1.1: Identify and distinguish between wireless and wired connections.		<b>Connections:</b> Report on the differences between wireless and wired connections using relevant facts and details.		
			<b>Standards:</b> 3.C.2.2		

Networks and the Internet	<b>Standard 2:</b> Discover the advantages of internet applications.				
	3.NI.2.1: Communicate electronically with others with support from peers, teachers, and others.	<b>Connections:</b> Communicate electronically with peers when practicing math facts.	<b>Connections:</b> Communicate electronically by writing for a variety of purposes and audiences.	<b>Connections:</b> Communicate electronically with teachers and peers by sharing researched information related to specific grade-level standards (e.g., communicating information on how electrical energy can be transformed into other forms of energy).	<b>Connections:</b> Communicate electronically with teachers and peers by sharing information regarding student study of South Carolina history.
		<b>Standards:</b> 3.ATO.1 3.ATO.2	<b>Standards:</b> 3.W.6.1.c	<b>Standards:</b> 3.S.1A.8 3.P.2A.4 3.P.3A.1 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5
	3.NI.2.2: Recognize particular websites as sources of research.		<b>Connections:</b> Gather information from websites to use as research.	<b>Connections:</b> Obtain information for specific concepts in grade-level standards (e.g., compare how different processes, including burning, friction, and electricity, serve as sources of heat energy).	<b>Connections:</b> Recognize particular websites as sources of research while seeking information related to student study of South Carolina history.
			<b>Standards:</b> 3.C.2.1	<b>Standards:</b> 3.P.2A.4 3.P.3A.1 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5



South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	<b>Standard 1:</b> Identify various ways in which data is stored and represented.				
	3.DA.1.1: Understand the different types of data storage (e.g., flash drives, hard drives, cloud storage).		<b>Connections:</b> Read informational texts with the purpose of understanding the different types of data storage.	<b>Connections:</b> Understand the different types of data storage by solving a specific problem and determining which would be the best data storage device.	<b>Connections:</b> Understand the different types of data storage to be used to save information related to student research and/or document creation during student study of South Carolina history.
			<b>Standards:</b> <i>3.RI.12.1</i>	<b>Standards:</b> <i>3.S.1B.1</i>	<b>Standards:</b> <i>3-1</i> <i>3-2</i> <i>3-3</i> <i>3-4</i> <i>3-5</i>
	3.DA.1.2: Identify various kinds of data (e.g., text, images, sounds, numbers).	<b>Connections:</b> Identify various kinds of data that can be organized into picture graphs, bar graphs, and line plots.		<b>Connections:</b> Identify various kinds of data such as qualitative and quantitative data.	<b>Connections:</b> Identify various kinds of data necessary to increase student understanding of South Carolina history.
		<b>Standards:</b> <i>3.MDA.3</i> <i>3.MDA.4</i>		<b>Standards:</b> <i>3.S.1A.3</i> <i>3.P.2A.3</i> <i>3.P.3B.2</i> <i>3.E.4B.2</i>	<b>Standards:</b> <i>3-1</i> <i>3-2</i> <i>3-3</i> <i>3-4</i> <i>3-5</i>

Data and Analysis	Standard 2: Collect, arrange, and represent data.				
	3.DA.2.1: Discuss appropriate tools for collecting data.	<b>Connections:</b> Discuss the tools used for collecting, organizing, and classifying data.	<b>Connections:</b> Create a plan for collecting information from primary and secondary sources.	<b>Connections:</b> Discuss the appropriate tools that can be used to collect and organize data.	<b>Connections:</b> Discuss the tools used for collecting, organizing, and classifying data related to student study of South Carolina history.
		<b>Standards:</b> 3.MDA.3	<b>Standards:</b> 3.I.3.1	<b>Standards:</b> 3.S.1A.3 3.S.1A.5 3.S.1A.6	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5
	3.DA.2.2: Represent data with bar graphs.	<b>Connections:</b> Represent data by drawing a scaled bar graph.		<b>Connections:</b> Understand and represent phenomena, processes, and relationships by representing data with bar graphs.	<b>Connections:</b> Represent data with bar graphs to show the population of Patriots, Loyalists, women, enslaved and free Africans, and Native Americans living in South Carolina during the American Revolution.
<b>Standards:</b> 3.MDA.3		<b>Standards:</b> 3.S.1A.2		<b>Standards:</b> 3-3.2	
Data and Analysis	Standard 3: Interpret and analyze data and information.				
	3.DA.3.1: Interpret and analyze given data (i.e., tables).	<b>Connections:</b> Interpret data with multiple categories.		<b>Connections:</b> Interpret and analyze data from observations and measurements to describe and compare different Earth materials.	<b>Connections:</b> Interpret and analyze given data associated with the economic impact of the Civil War on South Carolina.
		<b>Standards:</b> 3.MDA.3		<b>Standards:</b> 3.P.2A.1 3.S.1A.5 3.S.1A.6	<b>Standards:</b> 3-4.5

Data and Analysis	<b>Standard 4:</b> Understand the accuracy of conclusions and how they are influenced by the amount of data collected.				
	3.DA.4.1: Draw conclusions from different types of graphs (i.e., scaled bar graphs, line plots).	<b>Connections:</b> Draw conclusions and interpret data with multiple categories in a scaled picture graph, bar graph, and line plot.		<b>Connections:</b> Draw conclusions and construct explanations by using data communicated in graphs, tables, or diagrams.	<b>Connections:</b> Draw conclusions from different types of graphs (e.g., representations of population and migration) used to show various elements of South Carolina history.
		<b>Standards:</b> 3.MDA.3		<b>Standards:</b> 3.S.1A.6 3.P.2A.1 3.E.4A.1 3.L.5A.1	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5
	3.DA.4.2: Discuss factors that impact accuracy.	<b>Connections:</b> Discuss factors that impact accuracy when collecting, organizing, and classifying data.		<b>Connections:</b> Discuss the factors that impact accuracy when understanding the patterns, trends, and relationships.	<b>Connections:</b> Discuss factors that impact accuracy when discussing data analysis related to student study of South Carolina history.
		<b>Standards:</b> 3.MDA.3 3.MDA.4		<b>Standards:</b> 3.S.1A.4 3.S.1A.5	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Algorithms and Programming	<b>Standard 1:</b> Recognize that many daily tasks can be described as step-by-step instructions (i.e., algorithms).				
	3.AP.1.1: Describe a daily task as a sequence of steps.	<b>Connections:</b> Describe daily tasks using analog and digital clocks to record time to the nearest minute and/or time intervals.	<b>Connections:</b> Write for the domain-specific purpose of describing a step-by-step task.	<b>Connections:</b> Describe a task as a sequence of steps by using the scientific method.	<b>Connections:</b> Describe the sequence of steps necessary for the planting, cultivation, and harvesting of rice in the Carolina colony.
		<b>Standards:</b> 3.MDA.1	<b>Standards:</b> 3.W.6.1.b	<b>Standards:</b> 3.S.1A.3	<b>Standards:</b> 3-2.4 3-2.5
Algorithms and Programming	<b>Standard 2:</b> Use an ordered list of steps (i.e., sequential execution) and simple control structures.				
	3.AP.2.1: Describe, using picture models, an ordered list of steps to perform a simple task.	<b>Connections:</b> Describe how to add, subtract, or multiply using an ordered list of steps.	<b>Connections:</b> Create a presentation using photos to describe how to perform a specific task.	<b>Connections:</b> Use picture models to represent the steps and procedures in the scientific method.	<b>Connections:</b> Use picture models to represent the process of removing seeds from cotton using the cotton gin.
		<b>Standards:</b> 3.NSBT.2 3.NSBT.3	<b>Standards:</b> 3.C.3.2	<b>Standards:</b> 3.S.1A.3	<b>Standards:</b> 3-4.2
Algorithms and Programming	<b>Standard 3:</b> Explore how tasks can be decomposed into simple tasks and simple tasks can be composed to form complex tasks.				
	3.AP.3.1: Identify a simple task (e.g., eating breakfast; brushing your teeth; walking to the bus stop).	<b>Connections:</b> Identify a simple task as demonstrating fluency with basic multiplication and division facts.	<b>Connections:</b> Discuss the simple tasks that make up the writing process.	<b>Connections:</b> Identify one simple task in a specific scientific investigation.	<b>Connections:</b> Identify the simple tasks that comprised the planting of rice in the Carolina colony.
		<b>Standards:</b> 3.ATO.7	<b>Standards:</b> 3.C.1.2	<b>Standards:</b> 3.S.1A.3	<b>Standards:</b> 3-3.1

	3.AP.3.2: Identify a complex task (e.g., getting ready for school).	<b>Connections:</b> Identify a complex task as determining an unknown whole number in a multiplication or division equation or when solving problems.	<b>Connections:</b> Identify a complex task (e.g., becoming a published author).	<b>Connections:</b> Identify a complex task (e.g., lighting a bulb is a complex task of the path of an electric current).	<b>Connections:</b> Identify complex tasks that led to the American Revolution.
		<b>Standards:</b> 3.ATO.4 3.ATO.8	<b>Standards:</b> 3.C.1.2	<b>Standards:</b> 3.S.1A.3	<b>Standards:</b> 3-3.1
Algorithms and Programming	<b>Standard 4:</b> Develop a program to express an idea or address a problem.				
	3.AP.4.1: Use picture directions to design a series of steps to complete a simple task.	<b>Connections:</b> Use picture directions to design steps for adding/subtracting or multiplying/dividing whole numbers.	<b>Connections:</b> Write directions for a simple task using illustrations to aid comprehension.	<b>Connections:</b> Draw picture directions to describe the path of an electric current in a complete simple circuit as it accomplishes a task.	
		<b>Standards:</b> 3.NSBT.2 3.ATO.1 3.ATO.2	<b>Standards:</b> 3.W.2.1.c	<b>Standards:</b> 3.S.1A.3	
	3.AP.4.2: Test a series of directions to successfully complete a simple task.	<b>Connections:</b> Test a series of directions by solving addition/subtraction or multiplying/dividing problems.	<b>Connections:</b> Write narratives that develop clear event sequences.	<b>Connections:</b> Use the scientific method to perform a specific scientific investigation to test a series of directions to successfully complete a simple task (e.g., determine the factors that affect the strength of an electromagnet).	
		<b>Standards:</b> 3.NSBT.2 3.ATO.1 3.ATO.2	<b>Standards:</b> 3.C.3.1.a	<b>Standards:</b> 3.S.1A.3	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	<b>Standard 1:</b> Discuss how computing has impacted society.				
	3.IC.1.1: List examples of how computing technology has changed and improved the way people live, work, and interact.	<b>Connections:</b> Discuss how computing technology can speed up the processes of adding/subtracting and/or multiplying/dividing multi-digit numbers in equation(s).	<b>Connections:</b> Conduct research to find examples of the impact of computing technology.	<b>Connections:</b> When discussing the concept of engineering and constructing devices, list examples of how computing technology has changed throughout the years.	<b>Connections:</b> List examples of how computing technology has changed and improved the way people live, work, and interact specifically related to the growth of tourism and its effect on the South Carolina economy.
		<b>Standards:</b> 3.ATO.8	<b>Standards:</b> 3.I.2.1	<b>Standards:</b> 3.S.1B.1	<b>Standards:</b> 3-5.6
Impact of Computing	<b>Standard 2:</b> Evaluate the relevance and appropriateness of electronic information sources.				
	3.IC.2.1: Identify and discuss the relevance and appropriateness of various electronic information sources (e.g., online databases such as Discus; web search engines).		<b>Connections:</b> Organize and categorize research data for relevance.	<b>Connections:</b> Identify and discuss the relevance and appropriateness of various electronic sources when obtaining information identified in grade-level standards (e.g., explain how changes in habitats can be beneficial or harmful to the organisms that live there).	<b>Connections:</b> Identify and discuss the relevance and appropriateness of various electronic information sources while seeking information related to student study of South Carolina history.
			<b>Standards:</b> 3.I.3.2	<b>Standards:</b> 3.P.2A.4 3.P.3A.1 3.E.4B.3 3.L.5B.1	<b>Standards:</b> 3-1 3-2 3-3 3-4 3-5

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Grade 4

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Digital Literacy	<b>Standard 1:</b> Use software applications to create an authentic product.				
	4.DL.1.1: Create various documents (e.g., essays, posters) using a word processing program and including graphics (e.g., images, headlines).	<b>Connections:</b> Create using a word processing program documents to include fractions and decimals.	<b>Connections:</b> Create using word processing program presentations using multimedia elements.	<b>Connections:</b> Create using a word processing program documents that include graphics to communicate observations and explanations, and use various documents to design and refine scientific models.	<b>Connections:</b> Create using a word processing program a digital newspaper associated with a significant time period in United States history prior to 1865.
		<b>Standards:</b> 4.NSF.6	<b>Standards:</b> 4.C.3.2	<b>Standards:</b> 4.S.1A.8 4.E.2A.1 4.E.2B.2 4.E.3A.2 4.P.4A.3 4.L.5A.1 4.E.2A.2 4.E.3A.1 4.E.3B.4 4.P.4A.4 4.L.5A.3 4.L.5B.1	<b>Standards:</b> 4-1 4-2 4-3 4-4 4-5 4-6

	4.DL.1.2: Edit and format a document using a word processing program to insert, delete and move material within the document.		<b>Connections:</b> Revise and edit opinions, narratives, and informative pieces written using a word processing program.	<b>Connections:</b> Revise and edit a document of observations and explanations using a word processing program.	<b>Connections:</b> Use a word processing program to edit and format a document categorizing the everyday life, physical environment, and culture of the major Native American cultural groupings.
			<b>Standards:</b> 4.W.1 4.W.2 4.W.3	<b>Standards:</b> 4.S.1A.8 4.E.2A.1 4.E.2B.2 4.E.3A.2 4.P.4A.3 4.L.5A.1	<b>Standards:</b> 4-1.2
	4.DL.1.3: Format a presentation using presentation software to resize an image, change fonts, and change style.		<b>Connections:</b> Integrate craft techniques into presentations.	<b>Connections:</b> Format a presentation to present ideas and information from research, observations, and explanations.	<b>Connections:</b> Create and format a presentation to present information regarding student research of United States history, such as the Lewis and Clark Expedition.
			<b>Standards:</b> 4.C.5.1	<b>Standards:</b> 4.S.1A.8 4.E.2A.1 4.E.2B.2 4.E.3A.2 4.P.4A.3 4.L.5A.1	<b>Standards:</b> 4-1 4-2 4-3 4-4 4-5 4-6



	4.DL.1.4: Insert and modify a bulleted list in a word processor and presentation software.		<b>Connections:</b> Organize important information from inquiry research using a bulleted list.	<b>Connections:</b> Insert and modify a bulleted list of questions, explanations, and research on how constellations appear to move from Earth's perspective throughout the seasons.	<b>Connections:</b> Insert and modify a bulleted list of political, economic, and technological factors that led to the exploration of the New World by Spain, Portugal, France, the Netherlands, and England.
			<b>Standards:</b> 4.I.3.2	<b>Standards:</b> 4.S.1A.1 4.S.1A.2 4.S.1A.8 4.E.4A.2 4.E.3A.1 4.E.3B.4 4.P.4A.4 4.L.5A.3 4.L.5B.1 4.E.2A.1 4.E.2B.2 4.E.3A.2 4.P.4A.3 4.L.5A.1	<b>Standards:</b> 4-1.3

Digital Literacy	Standard 2: Demonstrate an awareness of fundamentals of digital citizenship.				
	4.DL.2.1: Discuss methods for digital communication (e.g., email, instant messaging) and determine the best method for specific needs (e.g., quickly sending large amounts of information).		Connections: Engage in purposeful dialogue about digital communication with peers and adults in order to share ideas and consider alternative viewpoints.	Connections: Demonstrate proper etiquette when obtaining information from professionals (e.g., an astronomer).	Connections: Demonstrate proper digital etiquette when communicating or obtaining information regarding United States history.
			Standards: 4.C.1.1	Standards: 4.S.1A.8 4.E.2A.1 4.E.3A.2 4.P.4A.3 4.L.5A.1	Standards: 4-1 4-2 4-3 4-4 4-5 4-6
	4.DL.2.2: Recognize and describe the potential risks and benefits associated with various forms of digital communication.		Connections: Ask and respond to questions about the risks and benefits of various forms of digital communication in order to acquire information.		
Standards: 4.C.1.2					
Digital Literacy	Standard 3: Demonstrate responsibility when using connected computing devices.				
	4.DL.3.1: Identify cyberbullying and describe potential strategies to manage and eliminate cyberbullying.		Connections: Explore the topic of cyberbullying to build knowledge and generate possible strategies to manage and eliminate cyberbullying.		
			Standards: 4.I.2.1		

	4.DL.3.2: Distinguish legal from illegal processes for downloading, sharing, and modifying online content.		<b>Connections:</b> Draw logical conclusions from the inquiry process to distinguish legal from illegal processes for downloading, sharing, and modifying online content.	<b>Connections:</b> Distinguish between illegal and legal processes for downloading, sharing, and modifying online content when developing models of Earth’s solar system to exemplify the location and order of the planets.	
			<b>Standards:</b> <i>4.I.4.1</i>	<b>Standards:</b> <i>4.E.2A.1</i> <i>4.E.3A.2</i> <i>4.P.4A.3</i> <i>4.L.5A.1</i>	
Digital Literacy	<b>Standard 4:</b> Demonstrate effective keyboarding skills on a computing device.				
	4.DL.4.1: Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 10 words per minute.	<b>Connections:</b> Demonstrate proper keyboarding technique when keying numbers through 999,999,999 in standard form.	<b>Connections:</b> Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 10 words per minute.	<b>Connections:</b> Demonstrate proper keyboarding techniques when creating documents and presentations for scientific explanations.	<b>Connections:</b> Demonstrate proper keyboarding technique when creating documents and presentations related to student study of United States history.
		<b>Standards:</b> <i>4.NSBT.2</i>	<b>Standards:</b> <i>4.W.6.4</i>	<b>Standards:</b> <i>4.S.1A.6</i> <i>4.S.1A.7</i> <i>4.S.1A.8</i>	<b>Standards:</b> <i>4-1</i> <i>4-2</i> <i>4-3</i> <i>4-4</i> <i>4-5</i> <i>4-6</i>

	4.DL.4.2: Use software capabilities to correct errors.	<b>Connections:</b> Correct errors when keying numbers through 999,999,999.	<b>Connections:</b> Revise and edit opinions, narratives, and informative pieces using software capabilities.	<b>Connections:</b> Correct errors when demonstrating proper keyboarding techniques when creating presentations of scientific investigations.	<b>Connections:</b> Use software capabilities to correct errors when creating documents and presentations related to student study of United States history.
		<b>Standards:</b> 4.NSBT.2	<b>Standards:</b> 4.W.1 4.W.2 4.W.3	<b>Standards:</b> 4.S.1A.6 4.S.1A.7 4.S.1A.8	<b>Standards:</b> 4-1 4-2 4-3 4-4 4-5 4-6

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	<b>Standard 1:</b> Identify and analyze various components and functions of computing devices (e.g., tablets, laptops, smartphones).				
	4.CS.1.1 : Describe what distinguishes humans from machines.		<b>Connections:</b> Write informative texts that describe what distinguishes humans from machines using facts and concrete details.	<b>Connections:</b> Distinguish between humans and machines when constructing devices to solve specific needs or problems.	
			<b>Standards:</b> 4.W.2.1.e	<b>Standards:</b> 4.S.1B.1	
	4.CS.1.2 : Identify a variety of computing devices and their functionality (e.g., mobility; available applications such as word processing; communication).		<b>Connections:</b> Write informative texts that identify a variety of computing devices by providing definitions.	<b>Connections:</b> Identify a variety of computing devices and their functionality to construct devices or design solutions.	
			<b>Standards:</b> 4.W.2.1.e	<b>Standards:</b> 4.S.1B.1	
	4.CS.1.3 : Describe the major hardware components (e.g., memory, processor) of a computing device (e.g., tablets, laptops, smartphones).		<b>Connections:</b> Write informative texts that describe the major hardware components by providing definitions and concrete facts.		
			<b>Standards:</b> 4.W.2.1.e		

Computing Systems	<b>Standard 2:</b> Analyze the various types and functions of software.				
	4.CS.2.1 : Explore the limitations and advantages of various computing devices for particular uses.	<b>Connections:</b> Explore the limitations and advantages of various computing devices when working with mathematics (e.g., fractions, multiple operations, geometric figures).	<b>Connections:</b> Explore the limitations and advantages of various computing devices in order to formulate questions and build knowledge.	<b>Connections:</b> Explore the limitations and advantages of various computer devices to construct effective devices or design solutions.	
		<b>Standards:</b> 4.NSF.2 4.NSF.3 4.G.1	<b>Standards:</b> 4.I.2.1	<b>Standards:</b> 4.S.1B.1	
	4.CS.2.2 : Explore application software (e.g., word processor, spreadsheet, presentation software, web browser).	<b>Connections:</b> Explore application software when generating a table to display data.	<b>Connections:</b> Explore application software in order to formulate questions and build knowledge.	<b>Connections:</b> Explore application software when generating data to analyze and interpret information.	
		<b>Standards:</b> 4.MDA.4	<b>Standards:</b> 4.I.2.1	<b>Standards:</b> 4.S.1A.4 4.E.2B.1 4.E.3B.1 4.P.4A.2 4.P.4B.2 4.L.5A.2	

Computing Systems	<b>Standard 3:</b> Apply troubleshooting strategies for identifying simple hardware and software problems that may occur during use.				
	4.CS.3.1 : Reboot a computing device correctly.				
	4.CS.3.2 : Identify whether the operating system or an application is the source of an error message.				
	4.CS.3.13: Identify and describe the causes of hardware (e.g., wiring), connectivity (e.g., no internet connection), and software (e.g., frozen screen) problems.				

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	Standard 1: Explore different ways a computer connects to the internet and other computing devices.				
	4.NI.1.1 : Identify types of wireless and wired connections (e.g., Wi-Fi, cellular).		Connections: Ask and respond to questions to acquire information concerning types of wireless and wired connections.		
			Standards: 4.C.1.2		
Networks and the Internet	Standard 2: Discover the advantages of internet applications.				
	4.NI.2.1 : Identify the appropriate use of email as a communication avenue.		Connections: Discuss the purpose and credibility of email as a communication avenue.	Connections: Model how emailing can be appropriate to obtain information from professionals in specific concepts in grade-level standards (e.g., emailing a meteorologist to explain the phases of the water cycle).	
			Standards: 4.C.2.2	Standards: 4.E.2A.1 4.E.3A.2 4.P.4A.3 4.L.5A.1	



	4.NI.2.2 : Effectively use search engines to find information.		<b>Connections:</b> Explore topics of interest using search engines.	<b>Connections:</b> Obtain information for the specific concepts in grade-level standards (e.g., gases in the atmosphere to develop models that exemplify the composition of Earth's atmosphere where weather takes place).	<b>Connections:</b> Effectively use search engines while seeking information related to student study of United States history.
			<b>Standards:</b> 4.I.2.1	<b>Standards:</b> 4.S.1A.8 4.E.2A.1 4.E.3A.2 4.P.4A.3 4.L.5A.1	<b>Standards:</b> 4-1 4-2 4-3 4-4 4-5 4-6
	4.NI.2.3 : Identify websites that are appropriate sources of research.		<b>Connections:</b> Identify websites that contain appropriate primary and secondary sources.	<b>Connections:</b> Identify websites when obtaining information for the specific concepts in grade-level standards (e.g., gases in the atmosphere to develop models that exemplify the composition of Earth's atmosphere where weather takes place).	<b>Connections:</b> Identify websites that are appropriate sources of research while seeking information related to student study of United States history.
			<b>Standards:</b> 4.I.3.1	<b>Standards:</b> 4.E.2A.1 4.E.3A.2 4.P.4A.3 4.L.5A.1	<b>Standards:</b> 4-1 4-2 4-3 4-4 4-5 4-6

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	<b>Standard 1:</b> Identify various ways in which data is stored and represented.				
	4.DA.1.1: Understand what it means to save a file in well-protected storage (e.g., hard drive, flash drive, cloud).		<b>Connections:</b> Draw conclusions from informational texts in order to understand what it means to save a file in well-protected storage.		<b>Connections:</b> Understand the different types of data storage to be used to effectively save information related to student research and/or document creation during student study of United States history.
			<b>Standards:</b> 4.RI.5.1		<b>Standards:</b> 4-1 4-2 4-3 4-4 4-5 4-6
	4.DA.1.2: Understand that computing devices have their own language (i.e., binary).		<b>Connections:</b> Acquire and use domain-specific words or phrases.		
			<b>Standards:</b> 4.RI.9.5		

Data and Analysis	<b>Standard 2:</b> Collect, arrange, and represent data.				
	4.DA.2.1: Select and use appropriate non-digital and digital tools for collecting data.	<b>Connections:</b> Select and use non-digital and digital tools for collecting measurement data for a line plot.	<b>Connections:</b> Collect, organize, and categorize data and other important information using non-digital and digital tools.	<b>Connections:</b> Select and use appropriate tools or instruments to collect qualitative and quantitative data.	<b>Connections:</b> Select and use appropriate non-digital and digital tools for collecting data related to student study of United States history.
		<b>Standards:</b> 4.MDA.4	<b>Standards:</b> 4.I.3.2	<b>Standards:</b> 4.S.1A.3 4.P.5A.5 4.P.4B.1	<b>Standards:</b> 4-1 4-2 4-3 4-4 4-5 4-6
	4.DA.2.2: Represent data with bar graphs and line plots.	<b>Connections:</b> Represent measurement data with a line plot.	<b>Connections:</b> Write informative texts that use illustrations, including bar graphs and line plots, to aid comprehension.	<b>Connections:</b> Represent data with bar graphs and line plots by developing, using, and refining models to communicate ideas to others.	<b>Connections:</b> Represent data with bar graphs and line plots to explain the motivations and methods of migrants and immigrants moving West during the early to mid-1800s.
		<b>Standards:</b> 4.MDA.4	<b>Standards:</b> 4.W.2.1.d	<b>Standards:</b> 4.S.1A.2 4.P.4A.4 4.L.5A.3 4.L.5B.1 4.E.4A.2 4.E.3A.1 4.E.3B.4	<b>Standards:</b> 4-5.2

Data and Analysis	Standard 3: Interpret and analyze data and information.				
	4.DA.3.1: Interpret and analyze given graphs (i.e., bar graphs, line plots).	Connections: Interpret and analyze line plots that display measurement data.		Connections: Interpret and analyze given graphs within the specific scientific concepts (e.g., data from weather maps to describe patterns).	Connections: Interpret and analyze given graphs to explain the significant economic and geographic differences between the North and the South prior to the Civil War.
		Standards: 4.MDA.4		Standards: 4.S.1A.4 4.E.2B.1 4.E.3B.1 4.P.4B.2	Standards: 4-6.1
Data and Analysis	Standard 4: Understand the accuracy of conclusions and how they are influenced by the amount of data collected.				
	4.DA.4.1: Apply factors that impact the accuracy of a conclusion.	Connections: Apply factors that impact accuracy, such as inaccurate measurements or data that is incorrectly recorded.	Connections: Draw accurate conclusions based on relationships and patterns found during the inquiry process.	Connections: Apply factors that impact the data conclusion by understanding patterns, trends, and relationships between variables.	Connections: Apply factors that impact the accuracy of a conclusion when discussing data analysis related to student study of United States history.
		Standards: 4.MDA.4	Standards: 4.1.4.1	Standards: 4.S.1A.5 4.P.4A.5 4.P.4B.1	Standards: 4-1 4-2 4-3 4-4 4-5 4-6

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Algorithms and Programming	<b>Standard 1:</b> Recognize that many daily tasks can be described as step-by-step instructions (i.e., algorithms).				
	4.AP.1.1: Use step-by-step instructions to perform tasks (i.e., sequential execution).	<b>Connections:</b> Use step-by-step instructions to illustrate and explain calculations.	<b>Connections:</b> Write narratives that develop real experiences using clear event sequences.	<b>Connections:</b> Perform a scientific investigation.	<b>Connections:</b> Use step-by-step instructions to explain the purpose, location, impact, and sequence of key United States land acquisitions in the first half of the nineteenth century.
		<b>Standards:</b> 4.NSBT.5 4.NSBT.6	<b>Standards:</b> 4.W.3.1.a	<b>Standards:</b> 4.S.1A.3 4.P.4A.5 4.P.4B.1	<b>Standards:</b> 4-5.3
Algorithms and Programming	<b>Standard 2:</b> Use an ordered list of steps (i.e., sequential execution) and simple control structures.				
	4.AP.2.1: Use a combination of picture models to reorder a sequence of steps.	<b>Connections:</b> Reorder a sequence of steps indicating how to fluently add and subtract multi-digit whole numbers.	<b>Connections:</b> Write informative texts that use illustrations to clarify a sequence of steps.	<b>Connections:</b> Identify the procedures within a scientific investigation and analyze which steps can be reordered with a picture model.	
		<b>Standards:</b> 4.NSBT.4	<b>Standards:</b> 4.W.2.1.d	<b>Standards:</b> 4.S.1A.3 4.P.4A.5 4.P.4B.1	

	4.AP.2.2: Recognize that the same steps can be ordered in different ways to perform the same task (i.e., simple control structures).	<b>Connections:</b> Recognize that steps can be ordered in different ways, such as composing and decomposing a fraction in more than one way.		<b>Connections:</b> Identify the procedures within a scientific investigation and analyze which steps can be reordered.	
		<b>Standards:</b> 4.NSF.3		<b>Standards:</b> 4.S.1A.3 4.P.4A.5 4.P.4B.1	
Algorithms and Programming	<b>Standard 3:</b> Explore how tasks can be decomposed into simple tasks and simple tasks can be composed to form complex tasks.				
	4.AP.3.1: Compose simple tasks (e.g., eating breakfast; brushing your teeth; walking to the bus stop) into a complex task (e.g., getting ready for school).	<b>Connections:</b> Compose simple tasks into complex tasks, such as using basic multiplication/division facts to multiply and divide multi-digit whole numbers.	<b>Connections:</b> Write narrative text that organizes the individual steps of the writing process into one cohesive complex task.	<b>Connections:</b> Compose the steps of the water cycle.	<b>Connections:</b> Compose the various tasks of the three branches of government associated with creating a law.
		<b>Standards:</b> 4.NSBT.5 4.NSBT.6	<b>Standards:</b> 4.W.3.1.c	<b>Standards:</b> 4.S.1A.3 4.E.2A.2	<b>Standards:</b> 4-2.2
	4.AP.3.2: Decompose a complex task (e.g., getting ready for school) into simple tasks (e.g., eating breakfast; brushing your teeth; walking to the bus stop).	<b>Connections:</b> Decompose a complex task into simple tasks, such as explaining why a fraction is equivalent to another fraction.	<b>Connections:</b> Write narrative text that breaks down a complex task into simple tasks using clear sequencing.	<b>Connections:</b> Decompose the life cycle of an animal or plant.	<b>Connections:</b> Decompose the process of creating a law into the various tasks associated with the three branches of government.
		<b>Standards:</b> 4.NSF.1	<b>Standards:</b> 4.W.3.1.c	<b>Standards:</b> 4.S.1A.3 4.L.5A.3	<b>Standards:</b> 4-4.2

Algorithms and Programming	<b>Standard 4:</b> Develop a program to express an idea or address a problem.				
	4.AP.4.1: Use picture directions to design a series of steps to complete a complex task.	<b>Connections:</b> Use picture directions to design a series of steps when composing/ decomposing a fraction in more than one way.	<b>Connections:</b> Use illustrations in informational text to clarify the steps of annotating a poem.	<b>Connections:</b> Use picture directions to design a scientific investigation.	<b>Connections:</b> Use picture directions to design a series of steps necessary to illustrate the process of creating a law.
		<b>Standards:</b> <i>4.NSF.3</i>	<b>Standards:</b> <i>4.W.2.1.d</i>	<b>Standards:</b> <i>4.S.1A.3</i> <i>4.P.4A.5</i> <i>4.P.4B.1</i>	<b>Standards:</b> <i>4-4.2</i>
	4.AP.4.2: Test a series of directions to successfully complete a complex task.	<b>Connections:</b> Test a series of directions to add/subtract mixed numbers with like denominators.		<b>Connections:</b> Test a series of directions within a scientific investigation.	
		<b>Standards:</b> <i>4.NSF.3</i>		<b>Standards:</b> <i>4.S.1A.3</i> <i>4.P.4A.5</i> <i>4.P.4B.1</i>	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	<b>Standard 1:</b> Discuss how computing has impacted society.				
	4.IC.1.1: Compare and contrast how computing has changed society from the past to the present.	<b>Connections:</b> Discuss how computing technology can speed up the processes of adding/subtracting and/or multiplying/dividing multi-digit numbers in equation(s).	<b>Connections:</b> Use information from multiple sources to write an opinion piece that compares and contrasts how computing has changed society from the past to the present.	<b>Connections:</b> Discuss how computing technologies can improve the process of analyzing and interpreting data from scientific investigations.	
		<b>Standards:</b> 4.NSBT.4 4.NSBT.5 4.NSBT.6 4.ATO.3	<b>Standards:</b> 4.W.1.1.b	<b>Standards:</b> 4.S.1A.4 4.E.2B.1 4.E.3B.1 4.P.4A.2 4.P.4B.2 4.L.5A.2	



Impact of Computing	<b>Standard 2:</b> Evaluate the relevance and appropriateness of electronic information sources.				
	4.IC.2.1: Compare the relevance and appropriateness of various electronic information sources (e.g., online databases such as Discus; web search engines).		<b>Connections:</b> Write an opinion piece that uses facts and details to compare the relevance and appropriateness of various electronic information sources.	<b>Connections:</b> Use appropriate online electronic resources to obtain information to plan and conduct scientific investigations, construct scientific arguments, and construct explanations of scientific phenomena.	<b>Connections:</b> Compare the relevance and appropriateness of various electronic information sources while seeking information related to student study of United States history.
			<b>Standards:</b> 4.W.1.1.c	<b>Standards:</b> 5.S.1A.3 5.S.1A.6 5.S.1A.7 4.P.4A.5 4.P.4B.1 4.E.2B.3 4.E.3B.2 4.E.3B.3 4.L.5B.2 4.L.5B.3 4.E.3A.3 4.P.4A.1 4.L.5A.4	<b>Standards:</b> 4-1 4-2 4-3 4-4 4-5 4-6

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Grade 5

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Digital Literacy	<b>Standard 1:</b> Use software applications to create an authentic product.				
	5.DL.1.1: Create various documents using a word processing program with various page elements (e.g., headers, footers, citations, tables, textboxes).	<b>Connections:</b> Create documents to explain patterns in the numbers of zeroes of a product and in the placement of the decimal point when multiplying/dividing by a power of 10; and to justify the reasonableness of a product when multiplying with fractions.	<b>Connections:</b> Use a word processing program to write informational texts that include formatting and illustrations to aid comprehension.	<b>Connections:</b> Create a document using a variety of features to communicate observations and explanations.	<b>Connections:</b> Create a document using a word processing program with various page elements to present information associated with a significant time period in United States history from 1865 to the present.
		<b>Standards:</b> 5.NSBT.2 5.NSF.5	<b>Standards:</b> 5.W.2.1.f	<b>Standards:</b> 5.S.1A.8 5.P.2B.1 5.L.4A.2	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6

	5.DL.1.2: Edit and format a document using a word processing program to change page and paragraph layouts.		<b>Connections:</b> Use a word processing program to edit and revise informative text in order to group information logically.	<b>Connections:</b> Revise and edit a document of observations and explanations on a word processing program.	<b>Connections:</b> Edit and format a document summarizing the factors that led to the involvement of the United States in World War I and the role of the United States in fighting the war.
			<b>Standards:</b> 5.W.2.1.d 5.W.2.1.h	<b>Standards:</b> 5.S.1A.8 5.P.2B.1 5.L.4A.2	<b>Standards:</b> 5-3.6
	5.DL.1.3: Format a presentation using presentation software (e.g., add transitions and speaker notes).		<b>Connections:</b> Create presentations that are enriched with transitions and speaker notes.	<b>Connections:</b> Format a presentation to present ideas and information from research, observations, and explanations.	<b>Connections:</b> Format a presentation using presentation software to present information regarding student research of United States history.
			<b>Standards:</b> 5.C.3.2	<b>Standards:</b> 5.S.1A.8 5.P.2B.1 5.L.4A.2	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6

	5.DL.1.4: Demonstrate an effective use of a bulleted list in a word processor and presentation software.		<b>Connections:</b> Use a word processor to create a bulleted list that provides logically ordered reasons for an argument.	<b>Connections:</b> Insert and modify a bulleted list of questions, explanations, and research in a word processor and presentation software (e.g., address claims that human activities affect the land and oceans of Earth).	<b>Connections:</b> Demonstrate an effective use of a bulleted list to compare the political, economic, and social effects of Reconstruction on different populations in the South and other regions of the United States.
			<b>Standards:</b> 5.W.1.1.c	<b>Standards:</b> 5.S.1A.1 5.S.1A.2 5.S.1A.8 5.P.2B.1 5.L.4A.2 5.P.2B.2 5.E.3A.2 3.E.3B.2 5.L.4B.2 5.P.5A.2	<b>Standards:</b> 5-1.4
	5.DL.1.5: Add data to spreadsheet software and create a simple graph.		<b>Connections:</b> Generate numerical patterns and organize in tables, and translate the patterns into ordered pairs and graph.	<b>Connections:</b> Use spreadsheet software to create a simple graph in order to draw conclusions from relationships and patterns discovered during inquiry.	<b>Connections:</b> Use spreadsheet software and simple graphs to analyze and interpret data from measurements, and use spreadsheet software to complete mathematical problems and engage in computational thinking.
			<b>Standards:</b> 5.ATO.3	<b>Standards:</b> 5.I.4.1	<b>Standards:</b> 5.S.1A.4 5.S.1A.5 5.P.2B.2 5.E.3B.1 5.L.4B.1 5.P.5A.1 5.P.5A.4

Digital Literacy	<b>Standard 2:</b> Demonstrate an awareness of fundamentals of digital citizenship.				
	5.DL.2.1: Demonstrate an understanding of digital security (i.e., protecting your digital information).		<b>Connections:</b> Write an informative text that introduces the topic of digital security.		<b>Connections:</b> Demonstrate an understanding of digital security when communicating or obtaining information regarding United States history.
			<b>Standards:</b> 5.W.2.1.		<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6
	5.DL.2.2: Demonstrate an understanding of digital rights and responsibilities (e.g., privacy, respectful communication).		<b>Connections:</b> Write an argument for or against digital rights and responsibilities using relevant facts and details.		<b>Connections:</b> Demonstrate an understanding of digital rights and responsibilities when sharing information with teachers, peers, and others regarding student study of United States history.
			<b>Standards:</b> 5.W.1.1.a 5.W.1.1.c		<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6

Digital Literacy	Standard 3: Demonstrate responsibility when using connected computing devices.				
	5.DL.3.1: Demonstrate awareness of software piracy and its consequences.		Connections: Write an informative piece that introduces the topic of software piracy and its consequences and develops the topic with facts and details.		
			Standards: 5.W.2.1.a 5.W.2.1.e		
	5.DL.3.2: Understand the legal ramifications for sending or receiving inappropriate content (e.g., cyberbullying, harassment).		Connections: Explore the legal ramifications for sending or receiving inappropriate content in order to build knowledge.		
Standards: 5.I.2.1					
Digital Literacy	Standard 4: Demonstrate effective keyboarding skills on a computing device.				
	5.DL.4.1: Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 15 words per minute.	Connections: Demonstrate proper keyboarding technique when keying decimal numbers in standard form and expanded form.	Connections: Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 15 words per minute when writing arguments, narratives, and informative texts.	Connections: Demonstrate proper keyboarding techniques when creating documents and presentations to communicate information about biotic factors of different terrestrial and aquatic ecosystems.	Connections: Demonstrate proper keyboarding technique when creating documents and presentations related to student study of United States history.
		Standards: 5.NSBT.3	Standards: 5.W.1 5.W.2 5.W.3	Standards: 5.S.1A.8 5.P.2B.1 5.L.4A.2	Standards: 5-1 5-2 5-3 5-4 5-5 5-6

	5.DL.4.2: Use software capabilities to correct errors.	<b>Connections:</b> Correct errors when keying decimal numbers.	<b>Connections:</b> Use software to edit and revise arguments, narratives, and informative texts.	<b>Connections:</b> Use software capabilities to correct errors when creating documents to communicate scientific information.	<b>Connections:</b> Use software capabilities to correct errors when creating documents and presentations related to student study of United States history.
		<b>Standards:</b> 5.NSBT.3	<b>Standards:</b> 5.W.1.1.e 5.W.2.1.h 5.W.3.1.e	<b>Standards:</b> 5.S.1A.8 5.P.2B.1 5.L.4A.2	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6
	5.DL.4.3: Demonstrate proper use of software capabilities to name, save, and retrieve information (e.g., organizing files and folders; following naming conventions).		<b>Connections:</b> Use software capabilities to organize and categorize research findings into files and folders.	<b>Connections:</b> Use software capabilities to organize and categorize research to create documents to relay scientific information.	<b>Connections:</b> Demonstrate proper use of software capabilities to name, save, and retrieve information related to student research and/or document creation during student study of United States history.
			<b>Standards:</b> 5.I.3.2	<b>Standards:</b> 5.S.1A.8 5.P.2B.1 5.L.4A.2	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	<b>Standard 1:</b> Identify and analyze various components and functions of computing devices (e.g., tablets, laptops, smartphones).				
	5.CS.1.1 : Select the appropriate computing device for an application (e.g., writing an essay on a laptop versus on a smartphone).		<b>Connections:</b> Select the appropriate computing device in order to adjust the writing process for the task.	<b>Connections:</b> Select the appropriate computing devices to develop and refine scientific models, plan and conduct scientific investigations, analyze scientific data and construct scientific arguments to communicate information.	<b>Connections:</b> Select the appropriate computing device for an application when researching, retrieving, or presenting information related to student study of United States history.
			<b>Standards:</b> 5.W.6.1.d	<b>Standards:</b> 5.S.1A.2 5.S.1A.3 5.S.1A.4 5.S.1A.7 5.P.3A.3 5.P.2B.3 5.E.3A.2 5.E.3B.2 5.L.4B.2 5.P.5A.2 5.P.2B.2 5.E.3B.1 5.L.4B.1 5.P.5A.4	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6



	5.CS.1.2: Explain the importance of the major hardware components of the computing device (e.g., input and output devices, processors).		<b>Connections:</b> Write an informative piece that defines the major hardware components and explains their importance.		
			<b>Standards:</b> 5.W.2.1.a 5.W.2.1.g		
Computing Systems	<b>Standard 2:</b> Analyze the various types and functions of software.				
	5.CS.2.1 : Justify the use of different computing devices for relevant tasks.	<b>Connections:</b> Justify the use of different computing devices when working with mathematics (e.g., fractions, multiple operations, geometric figures).	<b>Connections:</b> Write an argument that uses facts and details to justify the use of different computing devices for relevant tasks.	<b>Connections:</b> Justify the use of different computing devices when expressing quantitative observations, collecting and analyzing data or understanding patterns, trends and relationships between variables.	
		<b>Standards:</b> 5.NSBT.5 5.NSBT.6 5.NSBT.7	<b>Standards:</b> 5.W.1.1.a 5.W.1.1.c	<b>Standards:</b> 5.S.1A.5 5.P.5A.1	

	5.CS.2.2: Explore and compare multiple software applications (e.g., word processor, spreadsheet, presentation software, web browser).	<b>Connections:</b> Explore application software when generating a table to display data.	<b>Connections:</b> Explore multiple software applications, looking for patterns and relationships in order to compare the applications.	<b>Connections:</b> Explore application software when generating data to analyze and interpret information (e.g., predict how natural processes affect Earth's surface).	<b>Connections:</b> Explore and compare multiple software applications when researching, retrieving, or presenting information related to student study of United States history.
		<b>Standards:</b> 5.MDA.2	<b>Standards:</b> 5.I.2.1 5.I.4.1	<b>Standards:</b> 5.S.1A.4 5.P.2B.2 5.E.3B.1 5.L.4A.1 5.L.4B.1 5.P.5A.4	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6
Computing Systems	<b>Standard 3:</b> Apply troubleshooting strategies for identifying simple hardware and software problems that may occur during use.				
	5.CS.3.1: Respond appropriately to various error messages (e.g., "webpage not found;" "incorrect password").				
	5.CS.3.2: Identify the computing device components that may cause various problems.		<b>Connections:</b> Read a variety of informational texts with the purpose of identifying computing device components that may cause various problems.  <b>Standards:</b> 5.RI.12.1		

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	<b>Standard 1:</b> Explore different ways a computer connects to the internet and other computing devices.				
	5.NI.1.1 : Identify the advantages and disadvantages of various network types (e.g., wired, Wi-Fi, cellular data).		<b>Connections:</b> Read a variety of informational texts with the purpose of identifying the advantages and disadvantages of various network types.  <b>Standards:</b> 5.RI.12.1		
Networks and the Internet	<b>Standard 2:</b> Discover the advantages of internet applications.				
	5.NI.2.1: Recognize video conferencing as a communication avenue.		<b>Connections:</b> Compare and contrast video conferencing with other forms of communication.  <b>Standards:</b> 5.C.3.1	<b>Connections:</b> Obtain information by video conferencing with professionals connected to those concepts (e.g., video conference with a geologist to explain how different landforms and surface features result from the location and movement of water on Earth's surface through watersheds).  <b>Standards:</b> 5.S.1A.8 5.S.1A.6 5.E.3A.1 5.L.4A.2 5.P.2B.1 5.L.4A.2 5.P.2B.4 5.E.3A.1 5.L.3B.3	

	5.NI.2.2: Modify search criteria and use advanced search tactics to improve search results.		<b>Connections:</b> Reflect throughout the inquiry process in order to modify search criteria to improve search results.	<b>Connections:</b> Modify search criteria and use advanced tactics to develop, use and refine models (e.g., use models to explain the effect of the movement of ocean water on the ocean shore zone).	<b>Connections:</b> Modify search criteria and use advanced search tactics to improve search results while seeking information related to student study of United States history.
			<b>Standards:</b> 5.I.5	<b>Standards:</b> 5.S.1A.2 5.P.2B.3 5.E.3A.2 5.E.3B.2 5.L.4B.2 5.P.5A.2	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6
	5.NI.2.3: Utilize websites that are appropriate sources of research.		<b>Connections:</b> Develop a research plan that utilizes appropriate primary and secondary source websites.	<b>Connections:</b> Utilize websites that are appropriate for the specific concepts in grade-level standards (e.g., obtain information to describe and compare the biotic factors).	<b>Connections:</b> Utilize websites that are appropriate sources of research while seeking information related to student study of United States history.
			<b>Standards:</b> 5.I.3.1	<b>Standards:</b> 5.S.1A.8 5.P.2B.1 5.E.3A.1 5.L.4A.2	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	<b>Standard 1:</b> Identify various ways in which data is stored and represented.				
	5.DA.1.1: Save and retrieve files on computing devices.			<b>Connections:</b> Save and retrieve files on computing devices related to student research and/or document creation to communicate scientific information.	<b>Connections:</b> Save and retrieve files on computing devices related to student research and/or document creation during study of South Carolina history.
				<b>Standards:</b> 5.S.1A.8 5.P.2B.1 5.L.4A.2	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6
	5.DA.1.2: Recognize how text, images, and sounds are represented as binary numbers in computing devices.		<b>Connections:</b> Read a variety of informational texts with the purpose of recognizing how text, images, and sounds are represented as binary numbers in computing devices.		
			<b>Standards:</b> 5.RI.12.1		

Data and Analysis	<b>Standard 2:</b> Collect, arrange, and represent data.				
	5.DA.2.1: Compare and contrast tools for collecting data.	<b>Connections:</b> Compare and contrast tools for collecting data to create a line plot.	<b>Connections:</b> Compare and contrast tools for collecting data by grouping related information logically when writing informational text.	<b>Connections:</b> Use tools to collect and analyze data.	<b>Connections:</b> Compare and contrast tools for collecting data related to student study of United States history.
		<b>Standards:</b> 5.MDA.2	<b>Standards:</b> 5.W.2.1.d	<b>Standards:</b> 5.S.1A.4 5.P.2A.1 5.P.2B.2 5.E.3B.1 5.L.4A.2	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6
	5.DA.2.2: Determine the most effective way to represent a given data set (e.g., bar graphs, line plots).	<b>Connections:</b> Determine the most effective way to represent data consisting of unit fractions.		<b>Connections:</b> Determine the most effective representation by understanding or presenting phenomena, processes, and relationships.	<b>Connections:</b> Determine the most effective way to represent a given data set related to student study of United States history.
		<b>Standards:</b> 5.MDA.2		<b>Standards:</b> 5.S.1A.2 5.S.1A.3 5.P.2B.3 5.E.3A.2 5.E.3B.2 5.L.4B.2 5.P.5A.2 5.P.5A.3	<b>Standards:</b> 5-1 5-2 5-3 5-4 5-5 5-6

Data and Analysis	Standard 3: Interpret and analyze data and information.				
	5.DA.3.1: Compare and contrast models (e.g., graphs, tables) for data analysis.	Connections: Compare and contrast models such as line plots or tables for numerical patterns.		Connections: Compare and contrast models with data communicated in graphs, tables, or diagrams.	Connections: Compare and contrast models for data analysis related to the economic impact of the Great Depression.
		Standards: 5.MDA.2 5.ATO.3		Standards: 5.S.1A.6 5.P.2B.4 5.E.3A.1 5.L.4B.3	Standards: 5-4.2
Data and Analysis	Standard 4: Understand the accuracy of conclusions and how they are influenced by the amount of data collected.				
	5.DA.4.1: Discuss accuracy based on data available.	Connections: Discuss accuracy based on data for line plots or tables.	Connections: Reflect on the accuracy of data throughout the inquiry process.	Connections: Understand patterns, trends, and relationships to test for accuracy and when analyzing data.	Connections: Discuss accuracy based on data available when conducting a data analysis related to student study of United States history.
		Standards: 5.MDA.2 5.ATO.3	Standards: 5.I.5	Standards: 5.S.1A.4 5.S.1A.5 5.P.2A.1 5.P.2B.2 5.E.3B.1 5.L.4A.1 5.L.4B.1 5.P.5A.1 5.P.5A.4	Standards: 5-1 5-2 5-3 5-4 5-5 5-6

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Algorithms and Programming	Standard 1: Recognize that many daily tasks can be described as step-by-step instructions (i.e., algorithms).				
	5.AP.1.1: Execute a sequence of instructions (i.e., algorithm) that mimic a daily task.	Connections: Multiply multi-digit whole numbers using a standard algorithm.		Connections: Execute a controlled scientific investigation.	
		Standards: 5.NSBT.5		Standards: 5.S.1A.3 5.P.5A.3	
Algorithms and Programming	Standard 2: Use an ordered list of steps (i.e., sequential execution) and simple control structures.				
	5.AP.2.1: Recognize that a sequence of steps can be repeated.	Connections: Recognize that a sequence of steps can be repeated such as those in multiplying multi-digit whole numbers when using a standard algorithm.		Connections: Recognize the sequence of events in a controlled scientific investigation can be repeated.	
		Standards: 5.NSBT.5		Standards: 5.S.1A.3 5.P.5A.3	
	5.AP.2.2: Identify the result of a conditional statement (e.g., in the statement, “If it is dark, then turn on the light,” the result is the lights turning on).	Connections: Identify the result of a conditional statement when classifying two-dimensional figures.		Connections: In a scientific investigation, identify the result of a conditional statement.	
		Standards: 5.G.3 5.G.4		Standards: 5.S.1A.3 5.P.5A.3	



Algorithms and Programming	<b>Standard 3:</b> Explore how tasks can be decomposed into simple tasks and simple tasks can be composed to form complex tasks.				
	5.AP.3.1: Compose multiple levels of simple tasks (e.g., eating breakfast can include going to the table, sitting down in a chair, and picking up a spoon; brushing your teeth; walking to the bus stop) to make a more complex task.	<b>Connections:</b> Compose multiple levels of simple tasks into complex tasks, such as using the concept of multiplication to multiply a fraction or whole number by a fraction.	<b>Connections:</b> Organize simple tasks into natural sequences when writing narrative texts that describe complex tasks.	<b>Connections:</b> Compose multiple levels of simple tasks in the scientific investigation can be made into a more complex task or solution.	
		<b>Standards:</b> 5.NSF.4	<b>Standards:</b> 5.W.3.1.c	<b>Standards:</b> 5.S.1A.3 5.P.5A.3	
	5.AP.3.2: Decompose a complex task of higher complexity (e.g., cooking a meal) into simple tasks (e.g., selecting a recipe, getting the ingredients, preparing the food, and serving the meal, where the task of getting the ingredients can be decomposed into writing a shopping list, going to a store, selecting and buying the ingredients, and going home).	<b>Connections:</b> Decompose a complex task of higher complexity into simple tasks such as justifying the reasonableness of a product when multiplying with fractions.	<b>Connections:</b> Write a narrative that decomposes a complex task into simple tasks that follow a clear event sequence.	<b>Connections:</b> Decompose a solution from a scientific investigation into simple tasks.	
		<b>Standards:</b> 5.NSF.5	<b>Standards:</b> 5.W.3.1.a	<b>Standards:</b> 5.S.1A.3 5.P.5A.3	
	Algorithms and Programming	<b>Standard 4:</b> Develop a program to express an idea or address a problem.			
5.AP.4.1: Use a visual language to design and test a program that solves a simple task (e.g., online coding activity).				<b>Connections:</b> Identify a problem within a scientific investigation that allows for a solution that can be outputted through a visual language design.	
				<b>Standards:</b> 5.S.1A.3 5.P.5A.3	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	Standard 1: Discuss how computing has impacted society.				
	5.IC.1.1: Discuss the positive and negative impacts of computing on society.		Connections: Interact with others by listening, reflecting, and questioning to discuss the positive and negative impacts of computing on society.		Connections: Discuss the impact of computing on society and how technological innovations have changed daily life in the United States.
			Standards: 5.C.1		Standards: 5-6.4
Impact of Computing	Standard 2: Evaluate the relevance and appropriateness of electronic information sources.				
	5.IC.2.1: Demonstrate an understanding of the relevance and appropriateness of various electronic information sources (e.g., online databases such as Discus; web search engines).		Connections: Write a piece that argues for or against the relevance and appropriateness of various electronic information sources.	Connections: Use appropriate online electronic resources to obtain information to plan and conduct scientific investigations, construct scientific arguments and construct explanations of scientific phenomena.	Connections: Demonstrate an understanding of the relevance and appropriateness of various electronic information sources when researching, retrieving, or presenting information related to student study of United States history.
			Standards: 5.W.1.1.a	Standards: 5.S.1A.3 5.S.1A.6 5.S.1A.7 5.P.5A.3 5.P.2B.4 5.E.3A.1 5.L.4B.3 5.E.3B.3 5.L.4B.4	Standards: 5-1 5-2 5-3 5-4 5-5 5-6

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Grade 6

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Digital Literacy	<b>Standard 1:</b> Use software applications to collaborate and create authentic products.				
	6.DL.1.1: Use professional email protocol to communicate and share information with peers and teachers (e.g., addresses, subject line, body, salutations, closing).		<b>Connections:</b> Use professional email protocol to communicate and share information with peers and teachers (e.g., write an email to your teacher or your principal asking for information about an assignment or a school policy).	<b>Connections:</b> Use professional email protocol to communicate and share information obtained as a result of data collection and/or research on a science topic.	<b>Connections:</b> Use professional email protocol to explain Early Cultures to 1600 related content to peers and teachers (e.g., write professional emails to teacher as a key figure of the Renaissance and/or Reformation explaining their contribution [6-6.2]).
			<b>Standards:</b> <i>RC6.1</i> <i>6W.2.1</i> <i>6W.4</i> <i>6W.5</i> <i>6C.1.3</i> <i>6L.1.1</i> <i>6L.3.3</i> <i>6L.4.2</i> <i>6L.5.1</i>	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> <i>6-1</i> <i>6-2</i> <i>6-3</i> <i>6-4</i> <i>6-5</i> <i>6-6</i>

	6.DL.1.2: Share documents created using word processing, presentation, and spreadsheet software via email attachments.	<b>Connections:</b> Share documents to describe and critique reasoning (e.g., describe the distribution of a set of data collected or describe numerical data sets in relation to their real-world context).	<b>Connections:</b> Share documents created using word processing, presentation and spreadsheet software via email attachments (e.g., rough drafts, final drafts, and collaborative presentations).	<b>Connections:</b> Share documents created to communicate science knowledge using word processing and presentation programs via email attachments.	<b>Connections:</b> Share documents created using word processing, presentation, and spreadsheet software via email attachments in relation to Early Cultures to 1600.
		<b>Standards:</b> 6.DS.2 6.DS.5	<b>Standards:</b> RC6.1 6W.1.1 6W.2.1 6W.3.1 6W.4 6W.5 6C.1.3	<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 6-1 6-2 6-3 6-4 6-5 6-6
	6.DL.1.3: Use formulas in spreadsheets to perform real-world calculations (e.g., creating budgets).	<b>Connections:</b> Use formulas to find measures of center, unit rates; to work with percents; to translate between fractions, decimals, and percents.		<b>Connections:</b> Use formulas in spreadsheets to calculate data from scientific investigations.	<b>Connections:</b> Use formulas in spreadsheets to perform real-world calculations to show how early cultures used budgets and distribute resources.
		<b>Standards:</b> 6.NS.9 6.RP.3 6.DS.5		<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 6-1.2 6-5.1 6-6.4

Digital Literacy	<b>Standard 2:</b> Understand risks and responsibilities of being a digital citizen.				
	6.DL.2.1: Identify rules for safe internet use.		<b>Connections:</b> Read and discuss the school's rules for safe internet use.		
			<i>6C.1.1</i> <i>6C.1.2</i> <i>6C.1.3</i> <i>6C.1.4</i> <i>6C.1.5</i> <i>6RI.5.1</i> <i>6RI.6.1</i> <i>6RC.12.1</i>		
	6.DL.2.2: Identify appropriate use of social media (e.g., cyberbullying prevention).		<b>Connections:</b> Read and discuss the appropriate use of social media (e.g., inquiry projects on cyberbullying prevention, advertising).		
			<b>Standards:</b> <i>6C.1.1</i> <i>6C.1.2</i> <i>6C.1.3</i> <i>6C.1.4</i> <i>6C.1.5</i> <i>6RI.5.1</i> <i>6RI.6.1</i> <i>6RC.12.1</i>		

	6.DL.2.3: Identify appropriate use of computing devices.		<b>Connections:</b> Read and discuss the appropriate use of computing devices (e.g., reading on your cell phone, taking pictures of test items).		
			<b>Standards:</b> 6C.1.1 6C.1.2 6C.1.3 6C.1.4 6C.1.5 6RI.5.1 6RI.6.1 6RC.12.1		
Digital Literacy	<b>Standard 3:</b> Understand issues associated with appropriate use of personal digital information.				
	6.DL.3.1: Define and identify personal digital information.		<b>Connections:</b> Read and discuss issues related to personal digital information (e.g., digital footprints and career goals).		
			<b>Standards:</b> 6C.1.1 6C.1.2 6C.1.3 6C.1.4 6C.1.5 6RI.5.1 6RI.6.1 6RC.12.1		

	6.DL.3.2: Identify consequences of inappropriate sharing of personal digital information.		<b>Connections:</b> Read and discuss issues related to personal digital information (e.g., digital footprints and career goals).		
			<b>Standards:</b> 6C.1.1 6C.1.2 6C.1.3 6C.1.4 6C.1.5 6RI.5.1 6RI.6.1 6RC.12.1		
Digital Literacy	<b>Standard 4:</b> Demonstrate keyboarding speed and accuracy on a computing device.				
	6.DL.4.1: Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 20 words per minute.		<b>Connections:</b> Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 20 words per minute when composing an essay.	<b>Connections:</b> Reinforce proper keyboarding instruction when keying findings from scientific investigations.	
			<b>Standards:</b> 6W.6.4	<b>Standards:</b> All grade-level standards for this content area can apply.	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	<b>Standard 1:</b> Analyze the use of computing to solve relevant problems.				
	6.CS.1.1: Identify and describe the key functional components (e.g., input devices, output devices, processor, operating system, software applications, memory, storage) of a computer.				



	6.CS.1.2: Identify relevant problems and how they are solved using computer science and various types of computing devices (e.g., directions to a location can be obtained through Global Position Systems (GPS) and/or online maps).		<b>Connections:</b> Identify relevant problems and how they are solved using computer science and various types of computing devices (e.g., conduct an inquiry project where students explore the question, “How do computing devices solve relevant problems?”).	<b>Connections:</b> Use computing devices and computational thinking to construct devices or define solutions to real-world problems related to weather and climate, energy transfer and conservation, and diversity of living things.	<b>Connections:</b> Use various types of computing devices to compare the locations of places, the conditions of places, and the connections between places.
			<b>Standards:</b> <i>ELA Inquiry Standards</i> 6RI.5.1 6RI.6.1 6RI.7.1 6W.2 6W.3 6W.4 6W.5 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 6-1.1 6-1.2 6-1.3 6-2.1 6-2.4 6-2.5 6-3.1 6-3.2 6-3.3 6-3.4 6-4.1 6-4.2 6-4.3 6-4.4 6-5.1 6-5.3 6-5.5 6-6.3 6-6.5 6-6.6

Computing Systems	<b>Standard 2:</b> Examine how computing devices function.				
	6.CS.2.1: Understand various ways software is acquired and installed.				
Computing Systems	<b>Standard 3:</b> Evaluate various solutions to common hardware and software problems.				
	6.CS.3.1: Identify the source of a problem using a systematic process (i.e., troubleshooting).				

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	<b>Standard 1:</b> Analyze various network structures and how data is transmitted.				
	6.NI.1.1 : Identify and define hardware required to connect to a network (e.g., connect a school tablet or computer to Wi-Fi, network, or internet).			<b>Connections:</b> Identify the process and hardware used to connect an electronic device to a network in order to use a web-based science resource to obtain and analyze data and communicate information.	
				<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	
	6.NI.1.2 : Define an IP address and show an example.				
	6.NI.1.3 : Identify a Uniform Resource Locator (URL).		<b>Connections:</b> Identify the URL of a resource used to conduct research, and analyze and communicate data.	<b>Connections:</b> Identify the URL of a science resource used to conduct research, and analyze and communicate data.	<b>Connections:</b> Identify the URL of a social studies resource used to conduct research, analyze and communicate data.
			<b>Standards:</b> 6I.3.3 6C.2.2	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 6-1 6-2 6-3 6-4 6-5 6-6

	6.NI.1.4 : Define a packet and explain how they are used to transmit data across a network.				
Networks and the Internet	<b>Standard 2:</b> Identify methods to protect data, information, and computing devices across networks.				
	6.NI.2.1 : Identify common security risks associated with using computer networks (e.g., compromised passwords, phishing, viruses).		<b>Connections:</b> Conduct an inquiry project related to common security risks associated with using computer networks.		
			<b>Standards:</b> <i>Inquiry Standards</i> 6RI.5.1 6RI.6.1 6RI.7.1 6W.2 6W.3 6W.4 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2		

	<p>6.NI.2.2 : Identify how individuals and organizations protect data and information from security risks associated with using computer networks.</p>		<p><b>Connections:</b> Conduct inquiry projects related to how individuals and organizations protect data and information from security risks associated with using computer networks.</p> <p><b>Standards:</b> <i>Inquiry Standards</i> 6RI.5.1 6RI.6.1 6RI.7.1 6W.2 6W.3 6W.4 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2</p>		
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South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	<b>Standard 1:</b> Evaluate the storage and representation of data.				
	6.DA.1.1: Identify the file extensions (e.g., .ppt, .pdf, .mp3) associated with software programs.			<b>Connections:</b> Communicate the type of file extension used when conducting research, creating presentations, and storing information in science.  <b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	
Data and Analysis	<b>Standard 2:</b> Analyze how data is collected with both computational and non-computational tools and processes.				
	6.DA.2.1: Explore real-world data collection (e.g., identification number at lunch; teacher taking attendance; grocery store shopping card).	<b>Connections:</b> Explore and describe numerical data collected in real-world context when asking statistical questions.  <b>Standards:</b> 6.DS.1 6.DS.2 6.DS.3 6.DS.5	<b>Connections:</b> Explore real-world data collection in an inquiry project.  <b>Standards:</b> <i>Inquiry Standards</i> 6RI.5.1 6RI.6.1 6RI.7.1 6W.2 6W.3 6W.4 6W.5 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2	<b>Connections:</b> Use mathematical and computational thinking to collect and analyze real-world data during science investigations and simulations.  <b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Connections:</b> Explore real-world data collection using the development of governmental systems in early cultures.  <b>Standards:</b> 6-2.1 6-2.3 6-5.2

Data and Analysis	<b>Standard 3:</b> Analyze various ways to visually represent data.				
	6.DA.3.1: Explain how large data sets are represented graphically (e.g., frequency plots, bar graphs).	<b>Connections:</b> Describe qualitative aspects of large data sets that is represented graphically.	<b>Connections:</b> Explain in writing how large data sets described in informational texts are represented graphically.	<b>Connections:</b> Use data sets obtained from science investigations and simulations to create graphic representations.	<b>Connections:</b> Using early civilizations and their populations explain how large data sets are represented graphically.
		<b>Standards:</b> 6.DS.5	<b>Standards:</b> 6RI.7.1 6W.2 6W.4 6W.5 6C.3.1	<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 6-1.3 6-4.1 6-4.3 6-4.4 6-5.1
	6.DA.3.2: Represent one set of numerical data (e.g., histograms, box plots, dot plots).	<b>Connections:</b> Select and create the appropriate display of one set of numerical data.		<b>Connections:</b> Create a graphic representation using one set of numerical data obtained from a science investigation or simulation.	<b>Connections:</b> Using early civilizations and their populations, represent one set of numerical data.
		<b>Standards:</b> 6.DS.4		<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 6-1.3 6-4.1 6-4.3 6-4.4 6-5.1

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Algorithms and Programming	<b>Standard 1:</b> Design, evaluate, and modify simple algorithms (e.g., steps to make a sandwich; steps to a popular dance; steps for sending an email).				
	6.AP.1.1: Recognize that there are multiple ways to sequence instructions that can lead to the same result.	<b>Connections:</b> Recognize that there are multiple ways to solve an equation in one variable that lead to the same solution.	<b>Connections:</b> Write a process paper that includes sequence instructions (e.g., how to make a peanut butter and jelly sandwich, how tie a shoelace, how to get from home to school).	<b>Connections:</b> Recognize that the cycling of water through Earth's systems can be sequenced in multiple ways that lead to the same result.	<b>Connections:</b> Recognize that there are multiple ways to sequence instructions that can lead to the same result in regards to Early Culture to the 1600s (e.g., explain the various voyages of explorers to new lands [6-6.5]).
		<b>Standards:</b> 6.EE.7	<b>Standards:</b> 6W.2 6W.4 6W.5	<b>Standards:</b> 6.E.2A.3	<b>Standards:</b> 6-1 6-2 6-3 6-4 6-5 6-6
	6.AP.1.2: Interpret pseudocode and flowcharts.		<b>Connections:</b> Read and interpret a flowchart for a story or play.	<b>Connections:</b> Interpret flowcharts that explain how energy is conserved as it is transferred and transformed in electrical circuits.	<b>Connections:</b> Interpret flowcharts in regards to the Bubonic plague epidemic.
			<b>Standards:</b> 6RI.5.1 6RI.7.1 6RI.8.2	<b>Standards:</b> 6.P.3A.3	<b>Standards:</b> 6-5.5



Algorithms and Programming	<b>Standard 2:</b> Use and compare simple coding control structures (e.g., if-then, loops)				
	6.AP.2.1: Select appropriate coding control structures to skip or repeat instructions.				
Algorithms and Programming	<b>Standard 3:</b> Decompose problems into subproblems and write code to solve the subproblems (i.e., break down a problem into smaller parts).				
	6.AP.3.1: Discuss the parts of a program (e.g., components of creating a video game include keeping score, determining winners/losers, moving characters, designing game art, and advancing levels).		<b>Connections:</b> Conduct an inquiry project on a topic that invites analysis of the components (e.g., video games, board games, sports, dance), and discuss the breakdown into smaller parts.		<b>Connections:</b> Discuss the parts of a program when creating a game based on ancient war and the conquering of civilizations (e.g., components could include keeping score, determining winners/losers, moving characters, designing game art, and advancing levels).
			<b>Standards:</b> <i>Inquiry Standards</i> 6RI.5.1 6RI.6.1 6RI.7.1 6W.2 6W.3 6W.4 6W.5 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2		<b>Standards:</b> 6-1 6-2 6-3 6-4 6-5 6-6

Algorithms and Programming	<b>Standard 4:</b> Design and code programs to solve problems.				
	6.AP.4.1: Use a beginner coding language (e.g., drag-and-drop, block-based) to design and code a simple program that solves a problem.	<b>Connections:</b> Use a beginner coding language such as block-based coding to design and code a simple program that presents mathematical information (e.g., plot integers on a number line; graph equivalent ratios on a coordinate plane).	<b>Connections:</b> Use a beginner coding language to design and code a simple program that presents information (e.g., animate a story).	<b>Connections:</b> Use a beginner code language to design and code a simple program that designs and tests solutions that improve the efficiency of simple machines.	<b>Connections:</b> Use a beginner coding language to design and code a simple program that demonstrates stop the spread of the Bubonic plague.
		<b>Standards:</b> 6.NS.6 6.RP.3 6.EE.9	<b>Standards:</b> 6I.4.2 6W.3	<b>Standards:</b> 6.P.3B.2	<b>Standards:</b> 6-5.5
Algorithms and Programming	<b>Standard 5:</b> Identify variables and compare the types of data stored as variables.				
	6.AP.5.1: Recognize variables that represent information (e.g., age, first name).	<b>Connections:</b> Recognize variables that represent information in real-world situations and analyze their relationship.		<b>Connections:</b> Recognize variables that represent information obtained from conducting controlled scientific investigations.	
		<b>Standards:</b> 6.EE.6 6.EE.9		<b>Standards:</b> All grade-level standards for this content area can apply.	
	6.AP.5.2: Recognize variables can represent different types of data (e.g., numbers, words, colors, images).			<b>Connections:</b> Recognize variables can represent different types of data obtained from conducting controlled scientific investigations.	
				<b>Standards:</b> All grade-level standards for this content area can apply.	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	<b>Standard 1:</b> Evaluate the tradeoffs of computing in everyday activities.				
	6.IC.1.1: Explore how computer science is and can be used to solve problems in students' daily lives (e.g., "Internet of Things," smart appliances, smart cars).		<b>Connections:</b> Conduct an inquiry project on how computer science is and can be used to solve problems in students' daily lives (e.g., smart appliances, smart cars).	<b>Connections:</b> Explore how computer science is and can be used to construct devices or design solutions to solve problems in students' daily lives.	<b>Connections:</b> Explore how computer science is and can be used to solve problems that have historically manifested themselves throughout history in people's daily lives (e.g., explore how early cultures' problems could have been solved by more advanced technology).
			<b>Standards:</b> <i>Inquiry Standards</i> 6RI.5.1 6RI.6.1 6RI.7.1 6W.2 6W.3 6W.4 6W.5 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2	<b>Standards:</b> 6.P.3A.6 6.P.3B.2	<b>Standards:</b> 6-1 6-2 6-3 6-4 6-5 6-6

	6.IC.1.2: Discover positive and negative impacts of computing on society (e.g., personal, health, workforce, economy, education, culture, environment).		<b>Connections:</b> Conduct inquiry projects on the positive and negative impacts of computing on society.	<b>Connections:</b> Discover the positive and negative impacts on computing in the analysis and prediction of weather.	<b>Connections:</b> Investigate historical cases when technology had both a positive and negative impact on a culture and/or environment.
			<b>Standards:</b> <i>Inquiry Standards</i> 6RI.5.1 6RI.6.1 6RI.7.1 6W.2 6W.3 6W.4 6W.5 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2	<b>Standards:</b> 6.E.2B.1 6.E.2B.2 6.E.2B.3 6.E.2B.4	<b>Standards:</b> 6-1 6-2.3 6-3 6-4 6-5.1 6-5.5 6-6
Impact of Computing	<b>Standard 2:</b> Analyze various computing platforms used for communication.				
	6.IC.2.1: Identify current communication methods and computing devices.		<b>Connections:</b> Read and write about current communication methods and computing devices.	<b>Connections:</b> Identify current communication methods and computing devices to obtain and communicate information about science concepts.	<b>Connections:</b> Identify communication methods and computing devices through the use of historical print (e.g., Chinese woodblock printing, Gutenberg's printing press).
			<b>Standards:</b> 6RI.5.1 6RI.6.1 6W.2 6W.4 6W.5	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 6-3.1 6-6.2

Impact of Computing	<b>Standard 3:</b> Evaluate the tradeoffs in what and how information is shared digitally.				
	6.IC.3.1: Identify guidelines for safely using the internet.		<b>Connections:</b> Read and discuss guidelines for safely using the internet.	<b>Connections:</b> Identify guidelines for safely using the internet to obtain and communicate information related to science concepts.	
			<b>Standards:</b> 6RI.5.1 6RI.6.1 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2	<b>Standards:</b> All grade-level standards for this content area can apply.	
Impact of Computing	<b>Standard 4:</b> Evaluate how legal and ethical issues shape computing practices.				
	6.IC.4.1: Identify unethical and illegal behavior.		<b>Connections:</b> Conduct an inquiry project on legal and ethical issues that shape computing practices.		
			<b>Standards:</b> Inquiry Standards 6RI.5.1 6RI.6.1 6RI.7.1 6W.2 6W.3 6W.4 6W.5 6C.1.1-1.5 6C2.1-2.4 6C3.1-3.2 6C5.1-5.2		

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Grade 7

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
<b>Digital Literacy</b>	<b>Standard 1:</b> Use software applications to collaborate and create authentic products.				
	7.DL.1.1: Collaborate in small groups to create and edit online documents in real time (e.g., multiple users editing one document in a shared online space).	<b>Connections:</b> Collaborate in small groups in online documents to explain, justify and critique reasoning of others and explain (e.g., explain concepts of equality and inequality in real-world situations, justify steps for solving equations, describe cross sections, compare probabilities).	<b>Connections:</b> Collaborate online with peers (e.g., pairs, groups) on an inquiry/research project.	<b>Connections:</b> Collaborate in small groups to create and edit online documents in real time that construct explanations for scientific concepts.	<b>Connections:</b> Collaborate in small groups to create and edit online documents in real times content related to contemporary cultures (e.g., collaborate on a shared document to compare the different ways European nations developed political and economic influences [7-1.5]).
		<b>Standards:</b> <i>Math Process Standards</i> 7.NS.4 7.EEI.4 7.GM.3 7.DSP.8	<b>Standards:</b> <i>ELA Inquiry Standards,</i> 7W.1 7W.2 7W.3 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 7-1 7-2 7-3 7-4 7-5 7-6

	7.DL.1.2: Identify and use appropriate file sharing strategies (e.g., copy and paste, links, email attachments).		<b>Connections:</b> Share documents created using word processing, presentation and spreadsheet software via email attachments (e.g., rough drafts, final drafts, collaborative presentations).	<b>Connections:</b> Identify and use appropriate file sharing strategies while implementing the Science and Engineering Practices.	<b>Connections:</b> Identify and use appropriate file sharing strategies while implementing grade-level standards (e.g., collaborate on a shared document to compare the different ways European nations developed political and economic influences [7-1.5]).
			<b>Standards:</b> 7W.1 7W.2 7W.3 7W.4 7W.5 7CI.1 7CI.2 7C.1.3 7C.1.4	<b>Standards:</b> 7.S.1A.1 7.S.1A.2 7.S.1A.3 7.S.1A.4 7.S.1A.5 7.S.1A.6 7.S.1A.7 7.S.1A.8 7.S.1B.1	<b>Standards:</b> 7-1 7-2 7-3 7-4 7-5 7-6

	7.DL.1.3: Apply appropriate design principles to presentations (e.g., themes, contrast, animations).		<b>Connections:</b> Apply appropriate design principles to presentations.	<b>Connections:</b> Apply appropriate design principles to presentations to demonstrate an understanding of science concepts related to classification and conservation of matter, organization in living systems, inheritance and variation of traits, and interactions of living systems and the environment.	<b>Connections:</b> Apply appropriate design principles to presentations during the implementation of grade-level standards (e.g., create documents with the appropriate file sharing strategies to explain the causes, key events, and outcomes of the French Revolution [7-3.1]).
			<b>Standards:</b> 7C.5.1 7C5.2 7W.2.1e 7I.4.2	<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 7-1 7-2 7-3 7-4 7-5 7-6
Digital Literacy	<b>Standard 2:</b> Understand risks and responsibilities of being a digital citizen.				
	7.DL.2.1: Discuss consequences of improper internet use.		<b>Connections:</b> Read and discuss the school’s rules for safe internet use.		<b>Connections:</b> While explaining the significance and the impact of the technological revolution and the role of the internet, discuss consequences of improper internet use.
			<b>Standards:</b> 7RI.5.1 7RI.6.1 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2		<b>Standards:</b> 7-6.5



	7.DL.2.2: Discuss consequences of improper use of social media (e.g., cyberbullying).		<b>Connections:</b> Read and discuss the appropriate use of social media (e.g., inquiry projects on cyberbullying prevention, advertising).		<b>Connections:</b> While explaining the significance and the impact of the technological revolution and the role of the internet, discuss consequences of improper use of social media.
			<b>Standards:</b> 7RI.5.1 7RI.6.1 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2		<b>Standards:</b> 7-6.5
Digital Literacy	<b>Standard 3:</b> Understand issues associated with appropriate use of personal digital information.				
	7.DL.3.1: Identify appropriate methods for protecting personal digital information.		<b>Connections:</b> Read and discuss issues related to personal digital information (e.g., digital footprints and career goals).		<b>Connections:</b> Explain the significance and the impact of the technological revolution and identify appropriate methods for protecting personal digital information.
			<b>Standards:</b> 7RI.5.1 7RI.6.1 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2		<b>Standards:</b> 7-6.5

Digital Literacy	<b>Standard 4:</b> Demonstrate keyboarding speed and accuracy on a computing device.				
	7.DL.4.1: Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 25 words per minute.		<b>Connections:</b> Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 25 words per minute.	<b>Connections:</b> Reinforce proper keyboarding instruction when keying findings from scientific investigations.	
			<b>Standards:</b> 7W.6.4	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	<b>Standard 1:</b> Analyze the use of computing to solve relevant problems.				
	7.CS.1.1: Explore an expanded definition of computing devices (e.g., “Internet of Things,” wearable technology, robotics).		<b>Connections:</b> Conduct inquiry projects on the expanded definition of computing devices.	<b>Connections:</b> Explore an expanded definition of computing devices to construct scientific arguments using evidence to support claims concerning the advantages and disadvantages of the use of technology in influencing the transfer of genetic information.	<b>Connections:</b> Explain the significance of an expanded definition of computing devices and the impact it would have had on the information, technological, and communications revolutions.
			<b>Standards:</b> <i>ELA Inquiry Standards</i> 7RI.5.1 7RI.6.1 7RI.7.1 7W.2 7W.3 7W.4 7C.1.1-1.5 7C.2.1-2.4 7C.3.1-3.2 7C.5.1-5.2	<b>Standards:</b> 7.L.4A.6	<b>Standards:</b> 7-6.5

	7.CS.1.2: Analyze relevant problems and how they are solved using computer science and various types of computing devices (e.g., Global Positioning System (GPS) and online maps provide guided step-by-step directions to locations).		<b>Connections:</b> Conduct inquiry projects related to how computing devices solve relevant problems.	<b>Connections:</b> Use computer science and various types of computing devices to analyze and interpret data to predict changes in the number of organisms within a population when certain changes occur to the physical environment (e.g., changes due to natural hazards or limiting factors).	<b>Connections:</b> Analyze relevant problems and how they are solved using computer science and various types of computing devices in order to identify the location of places, the conditions at places, and the connections between places.
			<b>Standards:</b> <i>ELA Inquiry Standards</i> 7RI.5.1 7RI.6.1 7RI.7.1 7W.2 7W.3 7W.4 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2	<b>Standards:</b> 7.EC.5A.3	<b>Standards:</b> 7-1 7-3 7-4 7-6

Computing Systems	<b>Standard 2:</b> Examine how computing devices function.				
	7.CS.2.1 : Describe processing speed and storage capacity using standard units of measure (e.g., 3 TB hard drive, 256 GB cell phone, 3.8 GHz processor).	<b>Connections:</b> Use processing speed and capacity units in multi-step dimensional analysis.			
		<b>Standards:</b> 7.RP.3			
Computing Systems	<b>Standard 3:</b> Evaluate various solutions to common hardware and software problems.				
	7.CS.3.1 : Understand and communicate solutions to various computing problems (e.g., computing device is frozen; webpage does not load; application does not launch; keyboard does not work).		<b>Connections:</b> Explain in writing how to solve various computing problems.		
			<b>Standards:</b> 7W.2 7W.4 7W.5		
	7.CS.3.2 : Understand how rebooting a computing device can solve problems.				

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	<b>Standard 1:</b> Analyze various network structures and how data is transmitted.				
	7.NI.1.1 : Identify and compare types of networks (i.e., Local Area Networks (LANs) and Wide Area Networks (WANs)).		<b>Connections:</b> Write a comparison of the different types of networks.		
			<b>Standards:</b> 7W.2 7W.4 7W.5		
	7.NI.1.2 : Define and understand how the internet is a network of Wide Area Networks (WANs).		<b>Connections:</b> In writing, define and explain how the internet is a network of Wide Area Networks (WANs).		
			<b>Standards:</b> 7W.2 7W.4 7W.5		
	7.NI.1.3 : Compare and contrast network topologies (e.g., ring, star, mesh).		<b>Connections:</b> Write a comparison contrast piece on network typologies.		
			<b>Standards:</b> 7W.2 7W.4 7W.5		

Networks and the Internet	<b>Standard 2:</b> Identify methods to protect data, information, and computing devices across networks.				
	7.NI.2.1 : Identify software methods for protecting data transmitted across networks (e.g. anti-virus software).				
	7.NI.2.2 : Identify physical methods for securing computing devices (e.g., biometric-thumb reader, computer lock, restricted access rooms, hardware firewall).				

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	Standard 1: Evaluate the storage and representation of data.				
	7.DA.1.1: Describe how a picture, audio, and video are stored digitally (e.g., Red, Green, and Blue (RGB), pixels, .wav).		Connections: Write a description of how picture, audio, and video are stored digitally.		
			Standards: 7W.2 7W.4 7W.5		
Data and Analysis	Standard 2: Analyze how data is collected with both computational and non-computational tools and processes.				
	7.DA.2.1: Identify computing devices that assist with data collection (i.e., thermometers, barcode scanners, biometrics, sensors, radio-frequency identification (RFID), wearable technology).	Connections: Identify computing devices that assist with data collection of multiple random samples of a population (e.g., probeware, sensors to collect data).		Connections: Identify computing devices that assist with data collection in controlled scientific investigations.	Connections: Identify computing devices that assist with data collection and how those devices have made an impact on the information, technological, and communications revolutions.
		Standards: 7.DSP.2		Standards: All grade-level standards for this content area can apply.	Standards: 7-6.5



Data and Analysis	<b>Standard 3:</b> Analyze various ways to visually represent data.				
	7.DA.3.1: Create various graphical representations of large data sets (e.g., frequency plots, bar graphs, presentation software).	<b>Connections:</b> Graphical representations are created in previous years and can be expanded upon in Grade 7 to visually compare two displays of data and draw inferences about this data.		<b>Connections:</b> Create various graphical representations of large data sets from controlled scientific investigations to construct explanations of science concepts.	<b>Connections:</b> Select or design appropriate forms of social studies resources to organize and evaluate social studies information that create graphical representations of large data sets.
		<b>Standards:</b> 7.DSP.3		<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 7-1 7-4 7-6
	7.DA.3.2: Represent two sets of numerical data (e.g., histograms, box plots, dot plots).	<b>Connections:</b> Represent and visually compare two sets of data to draw inferences.		<b>Connections:</b> Represent two sets of numerical data from controlled scientific investigations to answer questions about science concepts (e.g., analyze how physical and chemical changes affect the properties of different substances; predict how changes in the number of organisms of one species affect the balance of an ecosystem).	<b>Connections:</b> Using examples from contemporary cultures, represent two sets of numerical data.
		<b>Standards:</b> 7.DSP.3		<b>Standards:</b> 7.P.2B.4 7.EC.5B.3	<b>Standards:</b> 7-1 7-3 7-4 7-5 7-6

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Algorithms and Programming	<b>Standard 1:</b> Design, evaluate, and modify simple algorithms (e.g., steps to make a sandwich; steps to a popular dance; steps for sending an email).				
	7.AP.1.1: Write sequences of instructions for others to perform tasks.	<b>Connections:</b> Write and justify steps for solving multi-step equations and two-step linear inequalities.	<b>Connections:</b> Write a process paper that includes sequence instructions (e.g., how to make a peanut butter and jelly sandwich, how to tie a shoelace, how to get from home to school).	<b>Connections:</b> Write sequences of instructions for others to perform tasks such as using mathematical and computational thinking to predict the probability of phenotypes and genotypes based on patterns of inheritance.	
		<b>Standards:</b> 7.EE1.4	<b>Standards:</b> 7W.2 7W.4 7W.5	<b>Standards:</b> 7.L.4A.4	
	7.AP.1.2: Suggest changes to the sequence of instructions that can lead to the same result (e.g., explore different ways to tying shoes).	<b>Connections:</b> Suggest changes to the sequence of solving multi-step equations and inequalities that lead to the same solution.	<b>Connections:</b> Write two versions of a process paper, demonstrating that changes to the sequence of instruction can lead to the same result (e.g., different ways to get dressed).	<b>Connections:</b> Suggest changes to the sequence of instructions for predicting the probability of phenotypes and genotypes based on patterns of inheritance that will lead to the same result.	
		<b>Standards:</b> 7.EE1.4	<b>Standards:</b> 7W.2 7W.4 7W.5	<b>Standards:</b> 7.L.4A.4	

	7.AP.1.3: Write clear instructions using pseudocode.			<b>Connections:</b> Write clear instructions using pseudocode to construct explanations for how compounds are classified as ionic or covalent using chemical formulas.	
				<b>Standards:</b> 7.P.2A.4	
Algorithms and Programming	<b>Standard 2:</b> Use and compare simple coding control structures (e.g., if-then, loops).				
	7.AP.2.1: Write code using control structures to skip or repeat instructions.				

Algorithms and Programming	<b>Standard 3:</b> Decompose problems into subproblems and write code to solve the subproblems (i.e., break down a problem into smaller parts).				
	7.AP.3.1: Decompose a problem into smaller parts.	<b>Connections:</b> Decompose real-world and mathematical problems involving ratios and percentages into smaller parts using proportional reasoning.  Decompose solving multi-step linear equations and two-step linear inequalities into smaller steps and justify those steps.	<b>Connections:</b> Conduct an inquiry project on a topic that invites analysis of the components (e.g., video games, board games, sports, dance), and discuss the breakdown into smaller parts.	<b>Connections:</b> Plan and conduct controlled scientific investigations to answer questions, test hypotheses, and develop explanations.	
		<b>Standards:</b> 7.RP.3 7.EE1.4	<b>Standards:</b> <i>ELA Inquiry Standards</i> 7RI.5.1 7RI.6.1 7RI.7.1 7W.2 7W.3 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	

	7.AP.3.2: Identify the parts of a program (e.g., components of creating a video game include keeping score, determining winners/losers, moving characters, designing game art, and advancing level).		<b>Connections:</b> Conduct an inquiry project on a topic that invites analysis of the components (e.g., video games, board games, sports, dance), and discuss the breakdown into smaller parts.		
			<b>Standards:</b> <i>ELA Inquiry Standards</i> 7RI.5.1 7RI.6.1 7RI.7.1 7W.2 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2		
Algorithms and Programming	<b>Standard 4:</b> Design and code programs to solve problems.				
	7.AP.4.1: Use a beginner coding language (e.g., drag-and-drop, block-based) to design and code a moderately complex program that solves a problem.	<b>Connections:</b> Use a beginning coding language to design and code a representation of a math process (e.g., graphing a line or proportional relationship).		<b>Connections:</b> Use a beginner coding language to design and code a moderately complex program that evaluates knowledge of a science concept.	
		<b>Standards:</b> 7.RP.2		<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	

Algorithms and Programming	<b>Standard 5:</b> Identify variables and compare the types of data stored as variables.				
	7.AP.5.1: Identify variables as a representation for information.			<b>Connections:</b> Identify variables that represent information obtained from conducting controlled scientific investigations.	
				<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	
	7.AP.5.2: Discuss the differences between the types of data (e.g., characters, integers, decimals).				

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	<b>Standard 1:</b> Evaluate the tradeoffs of computing in everyday activities.				
	7.IC.1.1 Understand how computer science is and can be used to solve problems in students' daily lives (e.g., voter identification website, online tax filing).		<b>Connections:</b> Conduct an inquiry project on how computer science is and can be used to solve problems in students' daily lives (e.g., smart appliances, smart cars).		<b>Connections:</b> Understand and explain the role and impact that computer science has on a student's daily life and the extent to which it can be and has been used to solve problems in society.
			<b>Standards:</b> <i>ELA Inquiry Standards</i> 7RI.5.1 7RI.6.1 7RI.7.1 7W.2 7W.3 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2		<b>Standards:</b> 7-6.5

	7.IC.1.2 Compare positive and negative impacts of computing on society (e.g., personal, health, workforce, economy, education, culture, environment).		<b>Connections:</b> Conduct inquiry projects on the positive and negative impacts of computing on society.	<b>Connections:</b> Compare the positive and negative impacts of computing on society through the contexts of the advantages and disadvantages of the use of technology in influencing the transfer of genetic information.	<b>Connections:</b> Compare positive and negative impacts of computing on society during the information, technological, and communications revolutions.
			<b>Standards:</b> <i>ELA Inquiry Standards</i> 7RI.5.1 7RI.6.1 7RI.7.1 7W.2 7W.3 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2	<b>Standards:</b> 7.L.4A.6	<b>Standards:</b> 7-6.5
Impact of Computing	<b>Standard 2:</b> Analyze various computing platforms used for communication.				
	7.IC.2.1 Describe current communication methods and computing devices.		<b>Connections:</b> Read and write about current communication methods and computing devices.	<b>Connections:</b> Describe current communication methods and computing devices to obtain and communicate information about science concepts.	<b>Connections:</b> Describe how current communication methods and computing devices have led to the information, technological, and communications revolutions.
			<b>Standards:</b> 7RI.5.1 7RI.6.1 7W.2 7W.4 7W.5 7C.1.1-1.5	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 7-6.5



Impact of Computing	Standard 3: Evaluate the tradeoffs in what and how information is shared digitally.				
	7.IC.3.1: Understand precautions to protect personal information (i.e., password strength, anti-virus software).		Connections: Read and discuss guidelines for protecting personal information.		Connections: When explaining the importance and significance of the technological, information, and communications revolutions, demonstrate an understanding of the precautions individuals need to take to protect their personal information.
			Standards: 7RI.5.1 7RI.6.1 7C.1.1-1.5		Standards: 7-6
Impact of Computing	Standard 4: Evaluate how legal and ethical issues shape computing practices.				
	7.IC.4.1: Understand the consequences of unethical and illegal behavior online (e.g., social media, gaming, cyberbullying).		Connections: Conduct an inquiry project on the consequences of unethical and illegal behaviors online.		Connections: Explain the significance of technological advancements while also demonstrating an understanding of the consequences of unethical and illegal behavior online.
			Standards: ELA Inquiry Standards 7RI.5.1 7RI.6.1 7W.2 7W.3 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2		Standards: 7-6.5

Impact of Computing	Standard 5: Understand the importance of access and equity in computing.				
	7.IC.5.1: Discuss and understand factors that affect access to computing resources locally, nationally, and globally (e.g., geographical location, socioeconomic status, government structure).		Connections: Read and discuss factors that affect access to computing resources locally, nationally, and globally.		Connections: Understand factors that affect access to computing resources locally, nationally, and globally that impact the growth and spread of the technological revolution.
			Standards: 7RI.5.1 7RI.6.1 7CI.1-1.5		Standards: 7-6
Impact of Computing	Standard 6: Explore computer science and computing-intensive careers.				
	7.IC.6.1: Explain how computer science plays a role in every industry.		Connections: Conduct an inquiry project on the role computer science plays in every industry.	Connections: Explain how computer science plays a role in the development and understanding of science concepts.	Connections: Explain how computer science plays a role in every industry and has helped add to the impact and understanding of the significant political, economic, geographic, scientific, technological, and cultural changes.
			Standards: ELA Inquiry Standards 7RI.5.1 7RI.6.1 7W.2 7W.3 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2	Standards: All grade-level standards for this content area can apply.	Standards: 7-1.4 7-3.4 7-3.5 7-5.4 7-6

Impact of Computing	<b>Standard 7:</b> Evaluate the history of computers and computing.				
	7.IC.7.1: Understand and communicate the changes in computing and computer science over time.		<b>Connections:</b> Conduct an inquiry project on how computing and computer science has changed over time.	<b>Connections:</b> Conduct research to understand and communicate how changes in computing and computer science over time have impacted the development of science models.	<b>Connections:</b> Explain the significance and impact of the information, technological, and communications revolutions, including the changes in computing and computer science over time.
			<b>Standards:</b> <i>ELA Inquiry Standards</i> <i>ELA Communication Standards</i> 7RI.5.1 7RI.6.1 7W.2 7W.3 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2	<b>Standards:</b> 7.S.1A.2	<b>Standards:</b> 7-6.5

	7.IC.7.2: Understand and communicate the history and development of the internet.		<b>Connections:</b> Conduct an inquiry project on the history and development of the internet.		<b>Connections:</b> Understand, communicate, and explain the significance and impact of the history and development of the internet.
			<b>Standards:</b> <i>ELA Inquiry Standards</i> 7RI.5.1 7RI.6.1 7W.2 7W.3 7W.4 7W.5 7C.1.1-1.5 7C2.1-2.4 7C3.1-3.2 7C5.1-5.2		<b>Standards:</b> 7-6.5

## South Carolina Computer Science and Digital Literacy Standards Content Overlay Resource: Grade 8

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Digital Literacy	<b>Standard 1:</b> Use software applications to collaborate and create authentic products.				
	8.DL.1.1: Produce documents according to industry standards (e.g., citation styles, agendas, financial statements, resumes).		<b>Connections:</b> Produce documents related to industry fields and according to industry standards (e.g., MLA, APA, agendas, resumes).	<b>Connections:</b> Produce documents according to industry standards that construct explanations of phenomena.	<b>Connections:</b> Produce documents according to industry standards that focus on the history of South Carolina and the role that the state and its people have played in the development of the United States as a nation.
			<b>Standards:</b> 8W.1.g 8W.2.e 8W.2.i	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>

	8.DL.1.2: Identify and use tabs in a word processing document (i.e., left, right, center, decimal).		<b>Connections:</b> Identify and use tabs in a word processing document produced (e.g., essays, resumes, narratives).	<b>Connections:</b> Identify and use tabs in a word processing document to analyze and interpret data from informational texts, observations, measurements, or investigations using a wide range of methods to reveal patterns and construct meanings, or support hypotheses, explanations, claims, or designs.	<b>Connections:</b> Identify and use tabs in a word processing document about the history of South Carolina and the role that the state and its people have played in the development of the United States as a nation.
			<b>Standards:</b> 8W.1 8W.2 8W.3	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>
	8.DL.1.3: Identify and use appropriate file compression techniques (e.g., zipping folders and files; image and file compression).		<b>Connections:</b> Identify and use appropriate file compression techniques when working with folders and files (e.g., essays, presentations, narratives).	<b>Connections:</b> Identify and use appropriate file compression techniques when creating work related to scientific investigations.	<b>Connections:</b> Identify and use appropriate file compression techniques when creating work related to the history of South Carolina and the role that the state and its people have played in the development of the United States as a nation.
			<b>Standards:</b> 8W.1 8W.2 8W.3	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>

Digital Literacy	<b>Standard 2:</b> Understand risks and responsibilities of being a digital citizen.				
	8.DL.2.1: Explore legal and ethical issues of improper computer and internet use (e.g., music, video, and software piracy; cyberbullying).		<b>Connections:</b> Conduct inquiry projects related to the legal and ethical issues of improper computer and internet use.		
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.3 8W.4 8W.5 8C.1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2		
Digital Literacy	<b>Standard 3:</b> Understand issues associated with appropriate use of personal digital information.				
	8.DL.3.1: Explore real-world examples of appropriate and inappropriate sharing of personal digital information.		<b>Connections:</b> Conduct inquiry projects related to the appropriate and inappropriate of sharing personal digital information.		
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.3 8W.4 8W.5 8C1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2		

Digital Literacy	<b>Standard 4:</b> Demonstrate keyboarding speed and accuracy on a computing device.				
	8.DL.4.1: Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 30 words per minute.		<b>Connections:</b> Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 30 words per minute.	<b>Connections:</b> Reinforce proper keyboarding instruction when keying findings from scientific investigations.	
			<b>Standards:</b> 8W.6.4	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	



South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Computing Systems	<b>Standard 1:</b> Analyze the use of computing to solve relevant problems.				
	8.CS.1.1: Compare and contrast relevant problems and how they are solved using computer science and various types of computing devices (e.g., Global Positioning System (GPS) and online maps include different features, including real-time traffic, satellite images, construction and accident notifications).		<b>Connections:</b> Conduct inquiry projects related to real-world problems and how they are solved using computer science and various types of computing devices.	<b>Connections:</b> Compare and contrast relevant problems and how they are solved using computer science and various types of computing devices to obtain and communicate information (e.g., how various instruments are used to extend human senses by transmitting and detecting waves to exemplify how technological advancements and designs meet human needs).	<b>Connections:</b> Compare and contrast the locations of places, the conditions at places, and the connections between those places using computer science and various types of computing devices.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.3 8W.4 8W.5 8C.1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2	<b>Standards:</b> 8.P.3A.6	<b>Standards:</b> 8-1 8-2 8-4 8-5 8-6 8-7

Computing Systems	<b>Standard 2:</b> Examine how computing devices function.				
	8.CS.2.1: Understand that computers receive and process data as a series of on and off signals (i.e., binary data).				
	8.CS.2.2: Determine appropriate hardware, operating systems, and software based upon the needs of users in various career fields (e.g., computing devices used by professional video producers and students differ).				
Computing Systems	<b>Standard 3:</b> Evaluate various solutions to common hardware and software problems.				
	8.CS.3.1: Understand computer hardware and software compatibility (e.g., applications designed for Android devices cannot run on iOS devices).				
	8.CS.3.2: Identify appropriate resources for troubleshooting hardware and software problems (e.g., user manuals, online searches, technology support services).				

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Networks and the Internet	<b>Standard 1:</b> Analyze various network structures and how data is transmitted.				
	8.NI.1.1: Identify a protocol as a set of rules, and identify common protocols (e.g., Hypertext Transfer Protocol (HTTP), File Transfer Protocol (FTP), Internet Protocol (IP), Transmission Control Protocol (TCP)).				
	8.NI.1.2: Diagram a small network using a switch and a router.				
	8.NI.1.3: Identify the best network topology given a problem (e.g., mesh, tree, ring).				

Networks and the Internet	<b>Standard 2:</b> Identify methods to protect data, information, and computing devices across networks.				
	8.NI.2.1: Discuss and understand recent events and trends regarding cybercrimes (i.e., identity theft, hacking).		<b>Connections:</b> Conduct inquiry projects related to recent events and trends regarding cybercrimes.		<b>Connections:</b> Discuss and understand recent events and trends regarding cybercrimes and how understanding those trends can and will affect the growing globalization and foreign investment into South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.3 8W.4 8W.5 8C1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2		<b>Standards:</b> 8-7

	8.NI.2.2 : Discuss and understand the impact of computing copyright issues (i.e., music and software piracy; plagiarism).		<b>Connections:</b> Conduct inquiry projects related to the impact of computing copyright issues.	<b>Connections:</b> Discuss and understand the impact of computing copyright issues when conducting scientific research.	<b>Connections:</b> Discuss and understand the impact of computing copyright issues when discussing how students will integrate technology into projects related to grade-level standards.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.3 8W.4 8W.5 8C1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2	<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 8-1 8-2 8-4 8-5 8-6 8-7

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Data and Analysis	<b>Standard 1:</b> Evaluate the storage and representation of data.				
	8.DA.1.1: Discuss how text, images, and sounds are represented using binary numbers in computing devices.				
	8.DA.1.2: Compare and contrast characteristics of a variety of file formats (e.g., software compatibility, file size, compressed and uncompressed files, transparency).		<b>Connections:</b> Write a comparison and contrast piece on the characteristics of a variety of file formats.		
			<b>Standards:</b> 8W.2 8W.4 8W.5		
	8.DA.1.3: Compare and contrast current storage mediums and their uses (e.g., flash drives, hard drives, networks, cloud).	<b>Connections:</b> Compare relative size of storage units using scientific notation.	<b>Connections:</b> Write a comparison and contrast piece on current storage mediums and their uses.		
			<b>Standards:</b> 8.EEI.3		

Data and Analysis	<b>Standard 2:</b> Analyze how data is collected with both computational and non-computational tools and processes.				
	8.DA.2.1: Compare and contrast computing devices that assist with data collection (i.e., thermometers, barcode scanners, biometrics, sensors, radio-frequency identification (RFID), wearable technology).		<b>Connections:</b> Write a comparison and contrast piece on computing devices that assist with data collection.	<b>Connections:</b> Compare and contrast computing devices that assist with data collection in controlled scientific investigations.	
			<b>Standards:</b> 8W.2 8W.4 8W.5	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	

Data and Analysis	<b>Standard 3:</b> Analyze various ways to visually represent data.				
	8.DA.3.1: Identify components of infographics that can be used to represent numerical data (e.g., scatterplots).	<b>Connections:</b> Create scatterplots and two-way tables to represent numerical data.		<b>Connections:</b> Identify components of infographics that can be used to represent numerical data collected during controlled scientific investigations.	<b>Connections:</b> Identify components of infographics that can be used to represent numerical data while evaluating multiple points of view or biases, explaining historical patterns, analyzing evidence, arguments, claims, and beliefs, and identifying and explaining the relationships among multiple causes and multiple effects (e.g., create infographics comparing the differing impact of the Civil War on South Carolinians in each of the various social classes, including those groups defined by race, gender, and age [8-4.6]).
		<b>Standards:</b> 8.DSP.1 8.DSP.4		<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 8-1 8-2 8-4 8-5 8-6 8-7



	8.DA.3.2: Make inferences based on collected data (e.g., online video watching history used to recommend new videos users may like).	<b>Connections:</b> Make inferences and predictions based on line of best fit and explore possible associations in two-way tables.	<b>Connections:</b> Read and make inferences based on collected data found in informational text (e.g., advertising, propaganda, current events related to grade-level standards).	<b>Connections:</b> Make inferences based on collected data from scientific investigations.	<b>Connections:</b> While focusing on the history of South Carolina and the role that the state and its people have played in the development of the United States as a nation, students will draw conclusions reached on the basis of evidence and reasoning.
		<b>Standards:</b> 8.DSP.3 8.DSP.4	<b>Standards:</b> 8RI.5.1 8RI.6.1	<b>Standards:</b> All grade-level standards for this content area can apply.	<b>Standards:</b> 8-1.4 8-1.5 8-2.1 8-2.3 8-2.6 8-3 8-4 8-5.1 8-5.5 8-5.6 8-5.7 8-5.8 8-6 8-7
	8.DA.3.3: Explain how models are used to predict specific behaviors and/or outcomes (e.g., weather data presented in a model used to predict future weather conditions and activity).	<b>Connections:</b> Apply line of best fit to predict in real-world problems and explore patterns of possible association between variables in two-way tables for prediction.	<b>Connections:</b> Write an explanation of how models are used to predict specific behaviors and /or outcomes.	<b>Connections:</b> Explain how models are used to predict specific behaviors and/or outcomes related to the Sun-Earth-Moon system.	<b>Connections:</b> Use present-day South Carolina data to explain and predict future outcomes for South Carolina and specific behaviors the citizens of South Carolina may take in the future.
		<b>Standards:</b> 8.DSP.3 8.DSP.4	<b>Standards:</b> 8W.2 8W.4 8W.5	<b>Standards:</b> 8.E.4B.2 8.E.4B.3 8.E.4B.4	<b>Standards:</b> 8-7.1 8-7.3 8-7.4

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Algorithms and Programming	<b>Standard 1:</b> Design, evaluate, and modify simple algorithms (e.g., steps to make a sandwich; steps to a popular dance; steps for sending an email).				
	8.AP.1.1: Modify a sequence of instructions to solve problems.	<b>Connections:</b> Describe and modify a sequence to solve linear equations and inequalities in one variable.	<b>Connections:</b> Write and modify a series of instructions to solve problems (e.g., making dinner, studying for a test, shooting a free throw).	<b>Connections:</b> Modify a sequence of instructions to solve problems that represent the motion of an object's position and speed as a function of time.	<b>Connections:</b> Identify and explain the relationships among multiple causes and multiple effects and how modifying a sequence in those relationships could have changed those outcomes.
		<b>Standards:</b> 8.EE.1.7	<b>Standards:</b> 8W.2 8W.4 8W.5	<b>Standards:</b> 8.P.2A.6	<b>Standards:</b> 8-1 8-2 8-4 8-5 8-6 8-7

	8.AP.1.2: Make changes to the sequence of instructions that can lead to the same result.	<b>Connections:</b> When solving linear equations and inequalities in one variable, make changes to the sequence of solving to lead to the same result.	<b>Connections:</b> Write two versions of a process paper, demonstrating that changes to the sequence of instruction can lead to the same result (e.g., different ways to get dressed).	<b>Connections:</b> Make changes to the sequence of instructions that represent the motion of an object's position and speed as a function of time.	<b>Connections:</b> Analyze and explain how historical events in grade-level standards would have led to the same result even had the events been altered (e.g., analyze how sectionalism arose from racial tension, including the Denmark Vesey plot, slave codes, and the growth of the abolitionist movement, and debate how changes in these events would have still led to the same events [8-4.2]).
		<b>Standards:</b> 8.EE1.7	<b>Standards:</b> 8W.2 8W.4 8W.5	<b>Standards:</b> 8.P.2A.6	<b>Standards:</b> 8-1 8-2 8-4 8-5 8-6 8-7

	8.AP.1.3: Write clear instructions using flowcharts.			<b>Connections:</b> Write clear instructions using flowcharts to describe the relationship between the processes and forces that create igneous, sedimentary, and metamorphic rocks.	<b>Connections:</b> Write clear instructions using flowcharts as related to grade-level standards (e.g., analyze how sectionalism arose from racial tension, including the Denmark Vesey plot, slave codes, and the growth of the abolitionist movement, and debate how changes in these events would have still led to the same events [8-4.2]).
				<b>Standards:</b> 8.E.5A.2	<b>Standards:</b> 8-1 8-2 8-4 8-5 8-6 8-7
Algorithms and Programming	<b>Standard 2:</b> Use and compare simple coding control structures (e.g., if-then, loops).				
	8.AP.2.1: Modify an algorithm using conditionals and iteration.			<b>Connections:</b> Modify a hypothesis from a controlled scientific investigation using if-then statements.	
				<b>Standards:</b> All grade-level standards for this content area can apply.	

Algorithms and Programming	Standard 3: Decompose problems into subproblems and write code to solve the subproblems (i.e., break down a problem into smaller parts).				
	8.AP.3.1: Decompose a problem into functional parts.			Connections: Plan and conduct controlled scientific investigations to answer questions, test hypotheses, and develop explanations.	
				Standards: All grade-level standards for this content area can apply.	
	8.AP.3.2: Compose a program with multiple parts.			Connections: Create a program with multiple parts that evaluates knowledge of a science concept.	
Standards: All grade-level standards for this content area can apply.					
Algorithms and Programming	Standard 4: Design and code programs to solve problems.				
	8.AP.4.1: Use a beginner coding language (e.g., drag-and-drop, block-based) to design and code a complex program that solves a problem.	Connections: Use a beginner coding language to design and code a complex program that presents mathematical information (e.g., graph equations, systems, comparing rational numbers on a number line).		Connections: Use a beginner coding language to design and code a complex program that evaluates knowledge of a science concept.	
		Standards: 8.NS.2 8.F.1 8.EE1.8		Standards: All grade-level standards for this content area can apply.	

Algorithms and Programming	<b>Standard 5:</b> Identify variables and compare the types of data stored as variables.				
	8.AP.5.1: Compare and contrast variables that change or are constant.			Connections Compare and contrast variables that change or are constants in a controlled scientific investigation.	
				<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	
	8.AP.5.2: Identify the variables needed to solve a given problem (i.e., information that needs to be tracked).			<b>Connections:</b> Identify the variable needed to solve a given problem in a controlled scientific investigation.	
				<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	

South Carolina Computer Science and Digital Literacy Standards		South Carolina College- and Career-Ready Standards for Mathematics	South Carolina College- and Career-Ready Standards for English Language Arts	South Carolina Academic Standards and Performance Indicators for Science 2014	South Carolina Social Studies Academic Standards
Impact of Computing	<b>Standard 1:</b> Evaluate the tradeoffs of computing in everyday activities.				
	8.IC.1.1: Justify how computer science is and can be used to solve problems in students' daily lives (e.g., mobile applications to accomplish tasks or solve problems in a neighborhood; remote traffic control).		<b>Connections:</b> Conduct an inquiry project related to how computer science is and can be used to solve problems in students' daily lives.		<b>Connections:</b> Justify how computer science is and can be used to solve problems related to present-day South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.3 8W.4 8W.5 8C.1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2		<b>Standards:</b> 8-7.4

	8.IC.1.2: Analyze positive and negative impacts of computing on society (e.g., personal, health, workforce, economy, education, culture, environment).		<b>Connections:</b> Conduct an inquiry project related to the positive and negative impacts of computing on society.	<b>Connections:</b> Analyze positive and negative impacts of computing on society as related to the effects of forces and motion, information about objects in the solar system, and catastrophic events.	<b>Connections:</b> Analyze positive and negative impacts of computing on society as globalization, foreign investment, and the influx of immigrants and migrants increases in South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.3 8W.4 8W.5 8C.1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2	<b>Standards:</b> 8.P.2A 8.E.4B 8.E.5B	<b>Standards:</b> 8-7.4
Impact of Computing	<b>Standard 2:</b> Analyze various computing platforms used for communication.				
	8.IC.2.1: Compare and contrast current communication methods and computing devices.		<b>Connections:</b> Write a comparison and contrast piece on current communication methods and computing.	<b>Connections:</b> Compare and contrast current communication methods and computing devices for obtaining and evaluating scientific information.	<b>Connections:</b> Compare and contrast current communication methods and computing devices and how those methods and devices have and will impact present-day South Carolina.
			<b>Standards:</b> 8W.2 8W.4 8W.5	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 8-7.1 8-7.4



Impact of Computing	<b>Standard 3:</b> Evaluate the tradeoffs in what and how information is shared digitally.				
	8.IC.3.1: Identify risks associated with sharing information digitally (e.g., phishing, identity theft, hacking).		<b>Connections:</b> Conduct an inquiry project related to the risks associated with sharing information digitally.		<b>Connections:</b> While describing the growing impact of globalization on South Carolina, students should also identify risks associated with sharing information digitally.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.4 8W.5 8C1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2		<b>Standards:</b> 8-7.4
Impact of Computing	<b>Standard 4:</b> Evaluate how legal and ethical issues shape computing practices.				
	8.IC.4.1: Investigate recent laws that have been created to govern computer use (e.g., privacy, piracy, censorship, intellectual property).		<b>Connections:</b> Conduct an inquiry project related to recent laws that have been created to govern computer use.		<b>Connections:</b> Investigate recent laws that have been created to govern computer use and how those laws have impacted globalization in South Carolina
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.4 8W.5 8C.1.1-1.5 8C2.1-2.4 8C3.1-3.2 8C5.1-5.2		<b>Standards:</b> 8-7.4

Impact of Computing	<b>Standard 5:</b> Understand the importance of access and equity in computing.				
	8.IC.5.1: Investigate historical and current trends of underrepresentation in computer science (e.g., race, ethnicity, gender, socioeconomic status).		<b>Connections:</b> Conduct an inquiry project related to the historical and current trends of underrepresentation in computer science.		<b>Connections:</b> Investigate historical and current trends of underrepresentation in computer science while demonstrating an understanding of the impact that significant events of the late twentieth and early twenty-first centuries have had on South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.4 8W.5 8C.1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2		<b>Standards:</b> 8-7.1 8-7.4

	8.IC.5.2: Recognize computer scientists from underrepresented populations who have advanced computing.		<b>Connections:</b> Conduct an inquiry project on computer scientists from underrepresented populations who have advanced computing.		<b>Connections:</b> Recognize computer scientists from underrepresented populations who have advanced computing while understanding the changes that took place in the United States during the late twentieth and early twenty-first centuries.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.4 8W.5 8C.1.1-1.5 8C2.1-2.4 8C3.1-3.2 8C5.1-5.2		<b>Standards:</b> 8-7.1 8-7.4
	8.IC.5.3: Explain how the lack of diverse perspectives and backgrounds restricts possible solutions to computational problems (e.g., first iteration of Google Maps included only driving directions, but later public transit and walking directions were added).		<b>Connections:</b> Write an explanation of how the lack of diverse perspectives and background restricts possible solutions to computational problems.		<b>Connections:</b> Explain how the lack of diverse perspectives and backgrounds restricts possible solutions to computational problems and could possibly impact globalization and key economic issues in present-day South Carolina.
			<b>Standards:</b> 8W.2 8W.4 8W.5		<b>Standards:</b> 8-7.4

Impact of Computing	<b>Standard 6:</b> Explore computer science and computing-intensive careers.				
	8.IC.6.1: Identify traditional and nontraditional careers that use computer science (e.g., computer science in agriculture, medical, and public safety fields).		<b>Connections:</b> Conduct an inquiry project related to traditional and nontraditional careers that use computer science.	<b>Connections:</b> Identify traditional and nontraditional careers that use computer science to solve problems related to 8th science concepts.	<b>Connections:</b> Identify traditional and nontraditional careers that use computer science in the growing economic climate of present-day South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.4 8C1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 8-7.4

	8.IC.6.2: Relate the five disciplines of computing (i.e., computer science, software engineering, information technology, information systems, and computer engineering) to careers in various industries (e.g., advancements in healthcare, national security, and transportation).		<b>Connections:</b> Conduct an inquiry project on how the five disciplines of computing relate to careers in various industries.		<b>Connections:</b> Relate the five disciplines of computing to careers in various industries and discuss how these disciplines can impact key economic issues in present-day South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.4 8W.5 8C.1.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2		<b>Standards:</b> 8-7.4

Impact of Computing	<b>Standard 7:</b> Evaluate the history of computers and computing.				
	8.IC.7.1: Analyze the impact of computing and computer science over time (e.g., advantages such as faster, more efficient completion of tasks and access to the information; disadvantages such as fewer human jobs due to automation).		<b>Connections:</b> Conduct an inquiry project on the impact of computing and computer science over time.	<b>Connections:</b> Analyze the impact of computing and computer science over time as related to obtaining and evaluating scientific information related to science concepts.	<b>Connections:</b> Analyze the impact of computing and computer science over time and how those changes will impact key economic issues in present-day South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.4 8W.5 8CI.1-1.5 8C2.1-2.4 8C3.1-3.2 8C5.1-5.2	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 8-7.4

	8.IC.7.2: Understand the historical impact and future potential of exponential growth in computing (i.e., Moore’s Law).		<b>Connections:</b> Conduct an inquiry project on the historical impact and future potential of exponential growth in computing.	<b>Connections:</b> Understand the historical impact and future potential of exponential growth in computing and how it will impact obtaining and evaluating scientific information.	<b>Connections:</b> Understand the historical impact and future potential of exponential growth in computing and how that growth will impact economic issues in present-day South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8RI.7.1 8W.2 8W.4 8W.5 8CI.1-1.5 8C2.1-2.3 8C3.1-3.2 8C5.1-5.2	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 8-7.4
	8.IC.7.3: Identify and describe emerging technologies (e.g., virtual reality, biometrics, health monitoring systems).		<b>Connections:</b> Conduct an inquiry project related to emerging technologies.	<b>Connections:</b> Identify and describe emerging technologies and how those technologies impact knowledge of science concepts.	<b>Connections:</b> Identify and describe emerging technologies and how those will impact economic issues and globalization in present-day South Carolina.
			<b>Standards:</b> <i>Inquiry Standards</i> 8RI.5.1 8RI.6.1 8W.2 8W.4 8W.5 8CI.1-1.5 8C2.1-2.4 8C3.1-3.2 8C5.1-5.2	<b>Standards:</b> <i>All grade-level standards for this content area can apply.</i>	<b>Standards:</b> 8-7.4