

Grade 3-5 Scope and Sequence for Technology

Students participate in rotating marking periods.	Unit	Number of Instructional Days
MP -1, 2	The Basics - Things To Remember	4 Instructional Days
MP -1, 2	Internet Safety - Digital Citizenship	4 Instructional Days
MP -1, 2	Basic Publishing - Technology Operations and Concepts	4 Instructional Days
MP -1, 2	Spreadsheets and Graphs - Technology Operations and Concepts	4 Instructional Days
MP -1, 2	Presentations - Creativity and Innovations	4 Instructional Days
MP -1, 2	Using Scratch to Create Animations - Critical Thinking, Problem Solving and Decision Making	4 Instructional Days

3-5 Grade Technology Curriculum	
Course Title: Technology	
Philosophy	Quick Link
Unit 1: The Basics - Things To Remember	Quick Link to Unit 1
Unit 2: Internet Safety - Digital Citizenship	Quick Link to Unit 2
Unit 3: Basic Publishing - Technology Operations and Concepts	Quick Link to Unit 3
Unit 4: Spreadsheets and Graphs - Technology Operations and Concepts	Quick Link to Unit 4
Unit 5: Presentations - Creativity and Innovations	Quick Link to Unit 5
Unit 6: Using Scratch to Create Animations - Critical Thinking, Problem Solving and Decision Making	Quick Link to Unit 6

Philosophy
<p>The Florham Park School District's technology curriculum encourages students to use creativity, problem solving, critical thinking, and decision making skills to prepare for the global workplace. In today's global economy, students need to be lifelong learners who have the knowledge and skills to adapt to an evolving workplace and world. To address these demands, Standard 9, 21st Century Life and Careers, which includes the 12 Career Ready Practices, establishes clear guidelines for what students need to know and be able to do in order to be successful in their future careers and to achieve financial independence.</p> <p>21st century life and career skills enable students to make informed decisions that prepare them to engage as active citizens in a</p>

dynamic global society and to successfully meet the challenges and opportunities of the 21st century global workplace.
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Unit 1: The Basics		Grade: 3-5
Unit Summary To fully implement and integrate the use of current and future technologies with the intent of enhancing the teaching and learning process as well as fostering students' ability to problem solve and think critically.		
NJ Student Learning Standards 2020 NJSLS - Computer Science and Design Thinking Core Ideas: <i>The study of human-computer interaction can improve the design of devices and extend the abilities of humans.</i> <i>Computing devices may be connected to other devices to form a system as a way to extend their capabilities.</i> <i>Software and hardware work together as a system to accomplish tasks (e.g., sending, receiving, processing, and storing units of information).</i> <i>Shared features allow for common troubleshooting strategies that can be effective for many systems.</i> Performance Expectations: <i>8.1.8.CS.1: Recommend improvements to computing devices in order to improve the ways users interact with the devices.</i> <i>8.1.5.CS.1: Model how computing devices connect to other components to form a system.</i> <i>8.1.5.CS.2: Model how computer software and hardware work together as a system to accomplish tasks.</i> <i>8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.</i>		
Unit Sequence		
Part A: Essential Questions		Part B: Enduring Understandings
<ul style="list-style-type: none"> How are digital tools used to access, manage, evaluate, and synthesize information to solve problems individually and collaboratively? How are digital tools used to create and communicate knowledge? 		<ul style="list-style-type: none"> The use of technology and digital tools requires knowledge and appropriate use of operations and related applications. The use of digital tools and media-rich resources enhances creativity and the construction of knowledge. Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems. Technological advancements create societal concerns regarding the practice of

	<p>safe, legal, and ethical behaviors.</p> <ul style="list-style-type: none"> • Effective use of digital tools assists in gathering and managing information. • Information accessed using digital tools assists in generating solutions and making decisions. • Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. • Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. • Students apply digital tools to gather, evaluate, and use information. • Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
Unit 1: The Basics	Teaching Point
	<ul style="list-style-type: none"> • Today I want to teach you to log-in and out and maneuver a few areas (Google, classroom, docs, drive, typing.com) • Today I want to teach you touch typing techniques for alpha, numeric and punctuation, grade level specific. • Today I want to teach you basic terms including network drives, fonts, cut, copy, paste, open and close, save, maximize, minimize, highlight, menu, favorites, links, toolbar, programs, applications, icon, graphic, message box, white space, data projectors, cursor, exit, double click and navigate • Today I want to teach to access the Network accounts, Log-on/off, save to, retrieve files from, organizing files. • Today I want to teach you to use Google Drive Log-on procedures and basic file creation capabilities. • Today I want to teach you to utilize professional applications to create documents, spreadsheets, and presentations • Today I want to teach you to use digital tools to collect and analyze data to solve problems • Today I want to teach you to generate multimedia rich documents for integration in published works • Today I want to teach you to utilize problem solving skills and creative innovation to create animation content constructed from program scripting. • Today I want to teach you to develop self-directed learning behaviors via online learning community to view content, participate in online discussion, collaborate with peers, upload assignments, and take online assessments. • Today I want to teach you to properly cite sources of information • Today I want to teach you to evaluate the accuracy of information found on the internet • Today I want to teach you to research a topic and publish a report using digital tools for all steps in the process • Today I want to teach you to adhere to district acceptable use policy. • Today I want to teach you to establish, outline, and plan projects

	<ul style="list-style-type: none"> • Today I want to teach you to locate and extract useful information from appropriate project resources • Today I want to teach you to utilize online database tools to locate research quality resources • Today I want to teach you to incorporate information into the project without plagiarizing • Today I want to teach you to locate royalty-free, Creative Commons licensed content (Free-use media)
Evidence of Learning (Assessments)	Accommodations and Modifications
<p>Formative Assessments:</p> <ul style="list-style-type: none"> • Pre-test • Teacher observation • Project completion/rubrics • Performance Tasks • Surveys <p>Summative Assessments:</p> <ul style="list-style-type: none"> • Unit Projects • Summative tests • Questionnaire • Demonstrations • Digital Portfolio • Learning Log <p>Benchmark Assessments:</p> <ul style="list-style-type: none"> • Initial Benchmark: Beginning of first marking period • Mid-Year Benchmark: Given in January • End of year Benchmark: end of marking period <p>Alternative Assessments:</p> <ul style="list-style-type: none"> • Choice Projects • Portfolios 	<p>Special Education:</p> <ul style="list-style-type: none"> • Curricular Modifications and Guidance for Students Educated in Special Class Settings • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Differentiation:</p> <ul style="list-style-type: none"> • <i>Preview content and concepts</i> • <i>Behavior management plan</i> • <i>Highlight text</i> • <i>Small group setting</i> • <i>Keyboards will be marked with specific colors on various keys.</i> <p>High-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Alternative formative and summative assessments</i> • <i>Guided Reading</i> • <i>Personal agendas</i> • <i>Project-based learning</i> • <i>Tiered activities/assignments</i> • <i>Varying organizers for instructions</i> <p>Low-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Clubbing activities</i> • <i>Exploration by interest</i> • <i>Flexible groupings</i> <p>English Language Learners:</p> <ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Students at Risk for Failure:</p>

	<ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Gifted and Talented</p> <ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Students with 504 Plans</p> <ul style="list-style-type: none"> • Subgroup Accommodations and Modification • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
<p>Core Instructional and Supplemental Materials Professional Resources:</p>	<p>Core Instructional, Supplemental, Instructional, and Intervention Resources</p>
<p>Core Professional Resources:</p> <ul style="list-style-type: none"> • https://alicekeeler.com • ISTE NET-S Implementation Wiki • http://www.typingweb.com/tutor/courses/ • https://www.tech4learning.com/ • https://www.battelleforkids.org/networks/p21 • Learning Activity Types – William And Mary University - TPACK • http://www.commonsemmedia.org/educators/curriculum/k-5 <p>Supplemental Professional Resources:</p> <ul style="list-style-type: none"> • ISTE NET-S Implementation Wiki • Partnership for 21st Century Skills • Learning Activity Types – William And Mary University - TPACK • https://sites.google.com/a/fpks.org/toolsforteachers/tools-to-enhance-instruction • http://www.typingweb.com/tutor/courses/ 	<p>Core Instructional Resources:</p> <ul style="list-style-type: none"> • <i>BrainPop</i> • <i>Newsela</i> • https://www.discoveryeducation.com/ • https://sos.fbi.gov/en/ • <i>Google Forms</i> • <i>Typing.com</i> • <i>Canva.com</i> <p>Supplemental Resources:</p> <p>Suggested Lessons for Differentiation with Small Groups:</p> <ul style="list-style-type: none"> • <i>All Standards, All Students/Case Studies</i> • <i>(Restructure Lessons with UDL)</i> • <i>Project Based Learning</i> • <i>Brainpop</i> • <i>Newsela</i> <p>Intervention Resources:</p>

	<ul style="list-style-type: none"> • Graphic Organizers • Scaffolded Notes • Closed Notes • Shared Notes and slide presentations • Study guides • Newsela • Brain Pop • Large Computer Keyboard • Noise canceling headphones
Interdisciplinary Connections	Integration of Technology through NJSLS
<ul style="list-style-type: none"> • Highlight texts, themes, and reflections that connect to themes related to ethical use and cyberbullying. • All major subject areas can be integrated into the area of technology including ELA, Mathematics, Social Studies, Science and Health. • Correlates to routine units in technology. <p>Math Math Practice Make sense of problems and persevere in solving them.</p> <p>ELA</p> <p>SL.3.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p> <p>SL.3.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.</p> <p>Standard 8 Computer Science 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.</p> <p>Standard 9 Career Readiness, Life Literacy, and Key Skills 9.2.8.CAP.2: Develop a plan that includes information about career areas of interest.</p>	<ul style="list-style-type: none"> • Use a document camera or overhead projector for shared lessons. • Use of chromebooks or iMacs • Use microphone or camera feature on computer <p>Ongoing:</p> <ul style="list-style-type: none"> • Use of Computers with headphones, Internet access, digital camera, microphones, drawing tablets • Use an overhead screen for shared information. <p>Other:</p> <ul style="list-style-type: none"> • Use Microsoft Word, Google Suite, Scratch software, iLife Suite.
Integration of 21st Century Themes and Skills	Media Literacy Integration
<ul style="list-style-type: none"> • Creativity and Innovation • Critical Thinking and Problem Solving Communication and Collaboration • Information Literacy • Media Literacy • Life and Career Skills 	<ul style="list-style-type: none"> • Ask students to look for specific things when they view videos or read print material, and then ask questions about those items • Build on the intuitive knowledge students have gained from media about the story and character • Clarify the distinction between fiction and nonfiction in different types of media reporting on the same topic • Use print materials to practice reading and comprehension skills

Career Education	Global Perspective
<ul style="list-style-type: none"> • Virtual Field Trips • EdTech Video • Google Teacher Tribe Podcasts • TechLearning.com 	<ul style="list-style-type: none"> • Black History Month • National Women’s History Month • Week of Respect • Red Ribbon Week • Kindness Month

Unit 2: Internet Safety	Grade: 3-5
Unit Summary To fully implement a child-friendly practice for smart internet habits and to stay safe online.	
NJ Student Learning Standards 2020 NJSLS - Computer Science and Design Thinking Core Ideas: <i>Information needs a physical or wireless path to travel to be sent and received.</i> <i>Distinguishing between public and private information is important for safe and secure online interactions.</i> <i>Information can be protected using various security measures (i.e., physical and digital).</i> Performance Expectations: <i>8.1.8.CS.1: Recommend improvements to computing devices in order to improve the ways users interact with the devices.</i> <i>8.1.5.NI.1: Develop models that successfully transmit and receive information using both wired and wireless methods.</i> <i>8.1.5.NI.2: Describe physical and digital security measures for protecting sensitive personal information.</i>	
Unit Sequence	
Part A: Essential Questions	Part B: Enduring Understandings
<ul style="list-style-type: none"> • How can I stay safe on the internet? • What does cyber citizenship look like among students? • How can I safeguard my personal information when surfing the web? 	<ul style="list-style-type: none"> • The use of the internet and social media can enhance creativity but also requires caution. • Students use critical thinking skills when posed with “netiquette” scenarios. • Students recognize when they should safeguard their personal information online.

Unit 2:Internet Safety	Teaching Point
	<ul style="list-style-type: none">● Today I want to teach you to demonstrate an understanding of the rules when accessing FP computers.● Today I want to teach you not to use other’s work.● Today I want to teach you to acquire information that is in the form of text, graphics, audio, and video and save information for use in student projects consistent with copyright issues, with teacher assistance.● Today I want to teach you to use proper computer etiquette (clean hands, no banging keyboard or mouse, respect equipment, hands stay in your space, no cords in mouth.● Today I want to teach you to demonstrate proper etiquette when using the Internet.● Today I want to teach you to practice simple searches.● Today I want to teach you to use keywords for searching through clip art.● Today I want to teach you the use of keywords for internet searches.

Evidence of Learning (Assessments)	Accommodations and Modifications
<div>Formative Assessments:</div> <ul style="list-style-type: none">● Pre-test● Teacher observation● Project completion/rubrics● Performance Tasks● Surveys <div>Summative Assessments:</div> <ul style="list-style-type: none">● Unit Projects● Summative tests● Questionnaire● Demonstrations● Digital Portfolio● Learning Log <div>Benchmark Assessments:</div> <ul style="list-style-type: none">● Initial Benchmark: Beginning of first marking period	<div>Special Education:</div> <ul style="list-style-type: none">● Curricular Modifications and Guidance for Students Educated in Special Class Settings● Subgroup Accommodations and Modifications● Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <div>Differentiation:</div> <ul style="list-style-type: none">● Preview content and concepts● Behavior management plan● Highlight text● Small group setting● Keyboards will be marked with specific colors on various keys. <div>High-Prep Differentiation:</div> <ul style="list-style-type: none">● Alternative formative and summative assessments● Guided Reading● Personal agendas● Project-based learning● Tiered activities/assignments● Varying organizers for instructions <div>Low-Prep Differentiation:</div>

<ul style="list-style-type: none"> • Mid-Year Benchmark: Given in January • End of year Benchmark: end of marking period 	<ul style="list-style-type: none"> • <i>Clubbing activities</i> • Exploration by interest • Flexible grouping
Alternative Assessments:	English Language Learners:
<ul style="list-style-type: none"> • Choice Projects • Portfolios 	<ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
	Students at Risk for Failure:
	<ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
	Gifted and Talented
	<ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
	Students with 504 Plans
Core Instructional and Supplemental Materials Professional Resources:	<ul style="list-style-type: none"> • Subgroup Accommodations and Modification • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) Core Instructional, Supplemental, Instructional, and Intervention Resources

<div data-bbox="176 232 1052 298"> <p>Core Professional Resources:</p> </div> <div data-bbox="176 298 1052 509"> <ul style="list-style-type: none"> • https://alicekeeler.com • ISTE NET-S Implementation Wiki • http://www.typingweb.com/tutor/courses/ • https://www.tech4learning.com/ • https://www.battelleforkids.org/networks/p21 • Learning Activity Types – William And Mary University - TPACK • http://www.common sense media.org/educators/curriculum/k-5 </div> <div data-bbox="176 509 1052 576"> <p>Supplemental Professional Resources:</p> </div> <div data-bbox="176 576 1052 737"> <ul style="list-style-type: none"> • ISTE NET-S Implementation Wiki • Partnership for 21st Century Skills • Learning Activity Types – William And Mary University - TPACK • https://sites.google.com/a/fpks.org/toolsforteachers/tools-to-enhance-instruction • http://www.typingweb.com/tutor/courses/ </div>	<div data-bbox="1079 232 1837 298"> <p>Core Instructional Resources:</p> </div> <div data-bbox="1079 298 1837 509"> <ul style="list-style-type: none"> • <i>BrainPop</i> • <i>Newsela</i> • https://www.discoveryeducation.com/ • https://sos.fbi.gov/en/ • <i>Google Forms</i> • <i>Typing.com</i> • <i>Canva.com</i> </div> <div data-bbox="1079 509 1837 576"> <p>Supplemental Resources:</p> </div> <div data-bbox="1079 576 1837 761"> <p>Suggested Lessons for Differentiation with Small Groups:</p> <ul style="list-style-type: none"> • All Standards, All Students/Case Studies • (Restructure Lessons with UDL) • Project Based Learning • Brainpop • Newsela </div> <div data-bbox="1079 761 1837 828"> <p>Intervention Resources:</p> </div> <div data-bbox="1079 828 1837 1092"> <ul style="list-style-type: none"> • Graphic Organizers • Scaffolded Notes • Closed Notes • Shared Notes and slide presentations • Study guides • Newsela • Brain Pop • Large Computer Keyboard • Noise canceling headphones </div>
<div data-bbox="176 1133 1052 1175"> <p>Interdisciplinary Connections</p> </div> <div data-bbox="176 1175 1052 1321"> <ul style="list-style-type: none"> • Highlight texts, themes, and reflections that connect to themes related to ethical use and cyberbullying. • All major subject areas can be integrated into the area of technology including ELA, Mathematics, Social Studies, Science and Health. • Correlates to routine units in technology. </div> <div data-bbox="176 1321 1052 1411"> <p>Math Math Practice Make sense of problems and persevere in solving them.</p> </div>	<div data-bbox="1079 1133 1837 1175"> <p>Integration of Technology through NJSLs</p> </div> <div data-bbox="1079 1175 1837 1411"> <ul style="list-style-type: none"> • Use a document camera or overhead projector for shared lessons. • Use of chromebooks or iMacs • Use microphone or camera feature on computer <p>Ongoing:</p> <ul style="list-style-type: none"> • Use of Computers with headphones, Internet access, digital camera, microphones, drawing tablets • Use of overhead screen for shared information. • <p>Other:</p> </div>

<p>ELA</p> <p>SL.3.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p> <p>SL.3.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.</p> <p>Standard 8 Computer Science 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.</p> <p>Standard 9 Career Readiness, Life Literacy, and Key Skills 9.2.8.CAP.2: Develop a plan that includes information about career areas of interest.</p>	<ul style="list-style-type: none"> • Use Microsoft Word, Google Suite, Scratch software, iLife Suite.
<p>Integration of 21st Century Themes and Skills</p>	<p>Media Literacy Integration</p>
<ul style="list-style-type: none"> • Creativity and Innovation • Critical Thinking and Problem Solving Communication and Collaboration Information Literacy • Media Literacy • Life and Career Skills 	<ul style="list-style-type: none"> • Ask students to look for specific things when they view videos or read print material, and then ask questions about those items • Build on the intuitive knowledge students have gained from media about the story and character • Clarify the distinction between fiction and nonfiction in different types of media reporting on the same topic • Use print materials to practice reading and comprehension skills
<p>Career Education</p>	<p>Global Perspective</p>
<ul style="list-style-type: none"> • Virtual Field Trips • EdTech Video • Google Teacher Tribe Podcasts • TechLearning.com 	<ul style="list-style-type: none"> • Black History Month • National Women's History Month • Week of Respect • Red Ribbon Week • Kindness Month

<p>Unit3: Basic Publishing</p>	<p>Grade: 3-5</p>
<p>Unit Summary To fully implement and integrate the use of current and future technologies with the intent of enhancing the teaching and learning process as well as fostering students' ability to problem solve and think critically.</p>	
<p>NJ Student Learning Standards</p>	
<p>2020 NJSLS - Computer Science and Design Thinking Core Ideas: <i>The study of human-computer interaction can improve the design of devices and extend the abilities of humans.</i></p>	

Performance Expectations: <i>8.1.8.CS.1: Recommend improvements to computing devices in order to improve the ways users interact with the devices.</i>	
Unit Sequence	
Part A: Essential Questions	Part B: Enduring Understandings
<ul style="list-style-type: none"> How are digital tools used to access, manage, evaluate, and synthesize information to solve problems individually and collaboratively? How are digital tools used to create and communicate knowledge? 	<ul style="list-style-type: none"> The use of technology and digital tools requires knowledge and appropriate use of operations and related applications. The use of digital tools and media-rich resources enhances creativity and the construction of knowledge. Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems. Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors. Effective use of digital tools assists in gathering and managing information. Information accessed using digital tools assists in generating solutions and making decisions. Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students apply digital tools to gather, evaluate, and use information. Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
Unit 3: Basic Publishing	Teaching Point
	<ul style="list-style-type: none"> Today I want to teach you to use proper keyboarding techniques such as correct hand and body positions and smooth and rhythmic keystroke patterns as grade-level appropriate. Today I want to teach you to sit properly at the computer (flat on bottom, back to back of chair); Use two hands at the keyboard, left and right side keys, thumbs on spacebar Today I want to teach you to demonstrate touch keyboarding techniques for operating the alphabetic, numeric, punctuation, and

	<p>symbol keys.</p> <ul style="list-style-type: none"> • Today I want to teach you to use the shift key to produce capitals. • Today I want to teach you to use the backspace key to delete spacebar to space, and enter key to go to another line. • Today I want to teach you to use the arrow keys to navigate a page. • Today I want to teach you to use font attributes, color, white space, and graphics to ensure that products are appropriate. • Today I want to teach you to format a document using font, color, size, style, Word Art, white space, vertical and horizontal centering. • Today I want to teach you to create a new document or open an existing one on the network folder.
Evidence of Learning (Assessments)	
<p>Formative Assessments:</p> <ul style="list-style-type: none"> • Pre-test • Teacher observation • Project completion/rubrics • Performance Tasks • Surveys 	
<p>Summative Assessments:</p> <ul style="list-style-type: none"> • Unit Projects • Summative tests • Questionnaire • Demonstrations • Digital Portfolio • Learning Log 	
<p>Benchmark Assessments:</p> <ul style="list-style-type: none"> • Initial Benchmark: Beginning of first marking period • Mid-Year Benchmark: Given in January • End of year Benchmark: end of marking period 	
<p>Alternative Assessments:</p> <ul style="list-style-type: none"> • Choice Projects • Portfolios 	
Accommodations and Modifications	
	<p>Special Education:</p> <ul style="list-style-type: none"> • Curricular Modifications and Guidance for Students Educated in Special Class Settings • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Differentiation:</p> <ul style="list-style-type: none"> • <i>Preview content and concepts</i> • <i>Behavior management plan</i> • <i>Highlight text</i> • <i>Small group setting</i> • <i>Keyboards will be marked with specific colors on various keys.</i> <p>High-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Alternative formative and summative assessments</i> • <i>Guided Reading</i> • <i>Personal agendas</i> • <i>Project-based learning</i> • <i>Tiered activities/assignments</i> • <i>Varying organizers for instructions</i> <p>Low-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Clubbing activities</i> • <i>Exploration by interest</i> • <i>Flexible groupings</i>
	<p>English Language Learners:</p> <ul style="list-style-type: none"> • Subgroup Accommodations and Modifications

	<ul style="list-style-type: none"> • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
	Students at Risk for Failure:
	<ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
	Gifted and Talented
	<ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
	Students with 504 Plans
	<ul style="list-style-type: none"> • Subgroup Accommodations and Modification • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
Core Instructional and Supplemental Materials Professional Resources:	Core Instructional, Supplemental, Instructional, and Intervention Resources

<div data-bbox="176 232 976 297"> <p>Core Professional Resources:</p> </div> <div data-bbox="176 297 976 508"> <ul style="list-style-type: none"> • https://alicekeeler.com • ISTE NET-S Implementation Wiki • http://www.typingweb.com/tutor/courses/ • https://www.tech4learning.com/ • https://www.battelleforkids.org/networks/p21 • Learning Activity Types – William And Mary University - TPACK • http://www.common sense media.org/educators/curriculum/k-5 </div> <div data-bbox="176 508 976 573"> <p>Supplemental Professional Resources:</p> </div> <div data-bbox="176 573 976 735"> <ul style="list-style-type: none"> • ISTE NET-S Implementation Wiki • Partnership for 21st Century Skills • Learning Activity Types – William And Mary University - TPACK • https://sites.google.com/a/fpks.org/toolsforteachers/tools-to-enhance-instruction • http://www.typingweb.com/tutor/courses/ </div>	<div data-bbox="1001 232 1837 297"> <p>Core Instructional Resources:</p> </div> <div data-bbox="1001 297 1837 508"> <ul style="list-style-type: none"> • <i>BrainPop</i> • <i>Newsela</i> • https://www.discoveryeducation.com/ • https://sos.fbi.gov/en/ • <i>Google Forms</i> • <i>Typing.com</i> • <i>Canva.com</i> </div> <div data-bbox="1001 508 1837 573"> <p>Supplemental Resources:</p> </div> <div data-bbox="1001 573 1837 760"> <p>Suggested Lessons for Differentiation with Small Groups:</p> <ul style="list-style-type: none"> • <i>All Standards, All Students/Case Studies</i> • <i>(Restructure Lessons with UDL)</i> • <i>Project Based Learning</i> • <i>Brainpop</i> • <i>Newsela</i> </div> <div data-bbox="1001 760 1837 824"> <p>Intervention Resources:</p> </div> <div data-bbox="1001 824 1837 1092"> <ul style="list-style-type: none"> • Graphic Organizers • Scaffolded Notes • Closed Notes • Shared Notes and slide presentations • Study guides • Newsela • Brain Pop • Large Computer Keyboard • Noise canceling headphones </div>
<div data-bbox="163 1133 989 1174"> <p>Interdisciplinary Connections</p> </div> <div data-bbox="163 1174 989 1320"> <ul style="list-style-type: none"> • Highlight texts, themes, and reflections that connect to themes related to ethical use and cyberbullying. • All major subject areas can be integrated into the area of technology including ELA, Mathematics, Social Studies, Science and Health. • Correlates to routine units in technology. </div> <div data-bbox="163 1320 989 1411"> <p>Math Math Practice Make sense of problems and persevere in solving them.</p> </div>	<div data-bbox="989 1133 1852 1174"> <p>Integration of Technology through NJSLS</p> </div> <div data-bbox="989 1174 1852 1411"> <ul style="list-style-type: none"> • Use a document camera or overhead projector for shared lessons. • Use of chromebooks or iMacs • Use microphone or camera feature on computer <p>Ongoing:</p> <ul style="list-style-type: none"> • Use of Computers with headphones, Internet access, digital camera, microphones, drawing tablets • Use the overhead screen for shared information. • <p>Other:</p> </div>

<p>ELA</p> <p>SL.4.3 Identify the reasons and evidence a speaker provides to support particular points. SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p>Standard 8 Computer Science 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.</p> <p>Standard 9 Career Readiness, Life Literacy, and Key Skills 9.2.8.CAP.2: Develop a plan that includes information about career areas of interest.</p>	<ul style="list-style-type: none"> • Use Microsoft Word, Google Suite, Scratch software, iLife Suite.
Integration of 21st Century Themes and Skills	Media Literacy Integration
<ul style="list-style-type: none"> • Creativity and Innovation • Critical Thinking and Problem Solving Communication and Collaboration • Information Literacy • Media Literacy • Life and Career Skills 	<ul style="list-style-type: none"> • Ask students to look for specific things when they view videos or read print material, and then ask questions about those items • Build on the intuitive knowledge students have gained from media about the story and character • Clarify the distinction between fiction and nonfiction in different types of media reporting on the same topic • Use print materials to practice reading and comprehension skills
Career Education	Global Perspective
<ul style="list-style-type: none"> • Virtual Field Trips • EdTech Video • Google Teacher Tribe Podcasts • TechLearning.com 	<ul style="list-style-type: none"> • Black History Month • National Women's History Month • Week of Respect • Red Ribbon Week • Kindness Month

Unit4: Spreadsheets and Graphs	Grade: 3-5
<p>Unit Summary To fully implement and integrate the use of current and future technologies with the intent of enhancing the teaching and learning process as well as fostering students' ability to problem solve and think critically.</p>	
<p>NJ Student Learning Standards</p>	
<p>2020 NJSLS - Computer Science and Design Thinking</p> <p>Core Ideas: <i>The development and modification of computing technology is driven by individual's needs and wants and can affect individuals differently.</i></p> <p>Performance Expectations: <i>8.1.8.CS.1: Recommend improvements to computing devices in order to improve the ways users interact with the devices.</i></p>	

8.1.5.IC.1: Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes.
8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.

Unit Sequence

Part A: Essential Questions

- How are digital tools used to access, manage, evaluate, and synthesize information to solve problems individually and collaboratively?
- How are digital tools used to create and communicate knowledge?

Part B: Enduring Understandings

- The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
- The use of digital tools and media-rich resources enhances creativity and the construction of knowledge.
- Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems.
- Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors.
- Effective use of digital tools assists in gathering and managing information.
- Information accessed using digital tools assists in generating solutions and making decisions.
- Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
- Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
- Students apply digital tools to gather, evaluate, and use information.
- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Unit 4: Spreadsheets and Graphs

Teaching Point

- Today I want to teach you to identify and locate **cells**, **rows**, and **columns**.
- Today I want to teach you to create a spreadsheet by entering text, and values (numeric).
- Today I want to teach you to create a formula to calculate a value.
- Today I want to teach you to change the font size, type, style (**bold**, **italicize**, **underline**), and color.

	<ul style="list-style-type: none"> • Today I want to teach you to interpret the graph, what do the numbers “say” by writing an essay describing the meaning of the graph. • Today I want to teach you to enter data into a pre-created spreadsheet with a chart. They will watch the chart change as their data is entered. • Today I want to teach you to create a spreadsheet and add formulas to calculate taxes “Let’s Add it all up.” • Today I want to teach you to create a spreadsheet in Google Drive that demonstrates information from science or social studies class.
Evidence of Learning (Assessments)	Accommodations and Modifications
Formative Assessments: <ul style="list-style-type: none"> • Pre-test • Teacher observation • Project completion/rubrics • Performance Tasks • Surveys 	Special Education: <ul style="list-style-type: none"> • Curricular Modifications and Guidance for Students Educated in Special Class Settings • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Differentiation:</p> <ul style="list-style-type: none"> • <i>Preview content and concepts</i> • <i>Behavior management plan</i> • <i>Highlight text</i> • <i>Small group setting</i> • <i>Keyboards will be marked with specific colors on various keys.</i> <p>High-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Alternative formative and summative assessments</i> • <i>Guided Reading</i> • <i>Personal agendas</i> • <i>Project-based learning</i> • <i>Tiered activities/assignments</i> • <i>Varying organizers for instructions</i> <p>Low-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Clubbing activities</i> • <i>Exploration by interest</i> • <i>Flexible groupings</i>
Summative Assessments: <ul style="list-style-type: none"> • Unit Projects • Summative tests • Questionnaire • Demonstrations • Digital Portfolio • Learning Log 	
Benchmark Assessments: <ul style="list-style-type: none"> • Initial Benchmark: Beginning of first marking period • Mid-Year Benchmark: Given in January • End of year Benchmark: end of marking period 	
Alternative Assessments: <ul style="list-style-type: none"> • Choice Projects • Portfolios 	English Language Learners: <ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)

	Students at Risk for Failure:
	<ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
	Gifted and Talented
	<ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
	Students with 504 Plans
	<ul style="list-style-type: none"> • Subgroup Accommodations and Modification • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
Core Instructional and Supplemental Materials Professional Resources:	Core Instructional, Supplemental, Instructional, and Intervention Resources

<div data-bbox="184 232 976 297"> Core Professional Resources: </div> <div data-bbox="237 316 976 500"> <ul style="list-style-type: none"> • https://alicekeeler.com • ISTE NET-S Implementation Wiki • http://www.typingweb.com/tutor/courses/ • https://www.tech4learning.com/ • https://www.battelleforkids.org/networks/p21 • Learning Activity Types – William And Mary University - TPACK • http://www.common sense media.org/educators/curriculum/k-5 </div> <div data-bbox="184 511 976 576"> Supplemental Professional Resources: </div> <div data-bbox="237 596 976 727"> <ul style="list-style-type: none"> • ISTE NET-S Implementation Wiki • Partnership for 21st Century Skills • Learning Activity Types – William And Mary University - TPACK • https://sites.google.com/a/fpks.org/toolsforteachers/tools-to-enhance-instruction • http://www.typingweb.com/tutor/courses/ </div>	<div data-bbox="1014 232 1835 297"> Core Instructional Resources: </div> <div data-bbox="1066 316 1835 500"> <ul style="list-style-type: none"> • BrainPop • Newsela • https://www.discoveryeducation.com/ • https://sos.fbi.gov/en/ • Google Forms • Typing.com • Canva.com </div> <div data-bbox="1014 511 1835 576"> Supplemental Resources: </div> <div data-bbox="1014 596 1835 760"> Suggested Lessons for Differentiation with Small Groups: <ul style="list-style-type: none"> • All Standards, All Students/Case Studies • (Restructure Lessons with UDL) • Project Based Learning • Brainpop • Newsela </div> <div data-bbox="1014 771 1835 836"> Intervention Resources: </div> <div data-bbox="1066 855 1835 1084"> <ul style="list-style-type: none"> • Graphic Organizers • Scaffolded Notes • Closed Notes • Shared Notes and slide presentations • Study guides • Newsela • Brain Pop • Large Computer Keyboard • Noise canceling headphones </div>
<div data-bbox="373 1141 781 1174"> Interdisciplinary Connections </div> <div data-bbox="226 1177 976 1308"> <ul style="list-style-type: none"> • Highlight texts, themes, and reflections that connect to themes related to ethical use and cyberbullying. • All major subject areas can be integrated into the area of technology including ELA, Mathematics, Social Studies, Science and Health. • Correlates to routine units in technology. </div> <div data-bbox="163 1333 216 1357"> Math </div> <div data-bbox="163 1360 281 1385"> Math Practice </div> <div data-bbox="163 1388 604 1406"> Make sense of problems and persevere in solving them. </div>	<div data-bbox="1140 1141 1705 1174"> Integration of Technology through NJSLs </div> <div data-bbox="1056 1177 1835 1357"> <ul style="list-style-type: none"> • Use a document camera or overhead projector for shared lessons. • Use of chromebooks or iMacs • Use microphone or camera feature on computer <p>Ongoing:</p> <ul style="list-style-type: none"> • Use of Computers with headphones, Internet access, digital camera, microphones, drawing tablets • Use an overhead screen for shared information. </div> <div data-bbox="1014 1388 1066 1406"> Other: </div>

<p>ELA</p> <p>SL.4.3 Identify the reasons and evidence a speaker provides to support particular points. SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p>Standard 8 Computer Science 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.</p> <p>Standard 9 Career Readiness, Life Literacy, and Key Skills 9.2.8.CAP.2: Develop a plan that includes information about career areas of interest.</p>	<ul style="list-style-type: none"> • Use Microsoft Word, Google Suite, Scratch software, iLife Suite.
Integration of 21st Century Themes and Skills	Media Literacy Integration
<ul style="list-style-type: none"> • Creativity and Innovation • Critical Thinking and Problem Solving Communication and Collaboration • Information Literacy • Media Literacy • Life and Career Skills 	<ul style="list-style-type: none"> • Ask students to look for specific things when they view videos or read print material, and then ask questions about those items • Build on the intuitive knowledge students have gained from media about the story and character • Clarify the distinction between fiction and nonfiction in different types of media reporting on the same topic • Use print materials to practice reading and comprehension skills
Career Education	Global Perspective
<ul style="list-style-type: none"> • Virtual Field Trips • EdTech Video • Google Teacher Tribe Podcasts • TechLearning.com 	<ul style="list-style-type: none"> • Black History Month • National Women's History Month • Week of Respect • Red Ribbon Week • Kindness Month

Unit 5: Presentations	Grades: 3-5
<p>Unit Summary To fully implement and integrate the use of presentation tools with the intent of teaching others.</p>	
<p>NJ Student Learning Standards</p>	
<p>2020 NJSLS - Computer Science and Design Thinking</p> <p>Core Ideas: <i>The development and modification of computing technology is driven by individual's needs and wants and can affect individuals differently.</i> <i>Data can be organized, displayed, and presented to highlight relationships.</i> <i>The type of data being stored affects the storage requirements.</i> <i>Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data.</i></p>	

Many factors influence the accuracy of inferences and predictions.

Performance Expectations:

8.1.8.CS.1: Recommend improvements to computing devices in order to improve the ways users interact with the devices.

8.1.5.IC.1: Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes.

8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.

8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.

8.1.5.DA.2: Compare the amount of storage space required for different types of data.

8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.

8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim.

8.1.5.DA.5: Propose cause and effect relationships, predict outcomes, or communicate ideas using data.

Unit Sequence

Part A: Essential Questions

- How are digital tools used to access, manage, evaluate, and synthesize information to solve problems individually and collaboratively?
- How are digital tools used to create and communicate knowledge?
- How can we use technology to collect and present data? [Climate Change Raw Data and Graphing Tools](#)

Part B: Enduring Understandings

- The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
- The use of digital tools and media-rich resources enhances creativity and the construction of knowledge.
- Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems.
- Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors.
- Effective use of digital tools assists in gathering and managing information.
- Information accessed using digital tools assists in generating solutions and making decisions.
- Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
- Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
- Students apply digital tools to gather, evaluate, and use information.
- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Unit 5: Presentations	Teaching Point
	<ul style="list-style-type: none"> • Today I want to teach you to add text to slides. • Today I want to teach you to insert multiple New Slides. • Today I want to teach you to change font size, type, style (bold, italicize, underline), add color. • Today I want to teach you to use Alignment tools to format text (left, right, center, justify). • Today I want to teach you to format text by using Bullets and Numbering. • Today I want to teach you to insert pictures from Clipart Gallery and from File. • Today I want to teach you to create links to slides in the presentation that are linear. • Today I want to teach you to use the Slide Sorter view to organize (change sequence) and edit presentation. • Today I want to teach you to demonstrate understanding of slide symmetry. • Today I want to teach you to demonstrate understanding of balancing colors and making information easy to view. • Today I want to teach you to review the basic elements of the Google Presentation software. • Today I want to teach you to use Google Presentations to make a presentation for a science or social studies topic. • Today I want to teach you how to use digital tools to collect, present and analyze data on Climate Change.
Evidence of Learning (Assessments)	Accommodations and Modifications
<p data-bbox="191 946 478 976">Formative Assessments:</p> <ul style="list-style-type: none"> • Pre-test • Teacher observation • Project completion/rubrics • Performance Tasks • Surveys <p data-bbox="191 1174 491 1203">Summative Assessments:</p> <ul style="list-style-type: none"> • Unit Projects • Summative tests • Questionnaire • Demonstrations • Digital Portfolio • Learning Log 	<p data-bbox="1014 946 1260 976">Special Education:</p> <ul style="list-style-type: none"> • Curricular Modifications and Guidance for Students Educated in Special Class Settings • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p data-bbox="1014 1117 1161 1141">Differentiation:</p> <ul style="list-style-type: none"> • <i>Preview content and concepts</i> • <i>Behavior management plan</i> • <i>Highlight text</i> • <i>Small group setting</i> • <i>Keyboards will be marked with specific colors on various keys.</i> <p data-bbox="1014 1282 1260 1307">High-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Alternative formative and summative assessments</i> • <i>Guided Reading</i> • <i>Personal agendas</i> • <i>Project-based learning</i>

<p>Benchmark Assessments:</p> <ul style="list-style-type: none"> Initial Benchmark: Beginning of first marking period Mid-Year Benchmark: Given in January End of year Benchmark: end of marking period <p>Alternative Assessments:</p> <ul style="list-style-type: none"> Choice Projects Portfolios 	<ul style="list-style-type: none"> <i>Tiered activities/assignments</i> <i>Varying organizers for instructions</i> <p>Low-Prep Differentiation:</p> <ul style="list-style-type: none"> <i>Clubbing activities</i> <i>Exploration by interest</i> <i>Flexible groupings</i> <p>English Language Learners:</p> <ul style="list-style-type: none"> Subgroup Accommodations and Modifications Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Students at Risk for Failure:</p> <ul style="list-style-type: none"> Subgroup Accommodations and Modifications Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Gifted and Talented</p> <ul style="list-style-type: none"> Subgroup Accommodations and Modifications Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Students with 504 Plans</p> <ul style="list-style-type: none"> Subgroup Accommodations and Modification Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
<p>Core Instructional and Supplemental Materials Professional Resources:</p>	<p>Core Instructional, Supplemental, Instructional, and Intervention Resources</p>

<div data-bbox="184 232 968 509"> <p>Core Professional Resources:</p> <ul style="list-style-type: none"> • https://alicekeeler.com • ISTE NET-S Implementation Wiki • http://www.typingweb.com/tutor/courses/ • https://www.tech4learning.com/ • https://www.battelleforkids.org/networks/p21 • Learning Activity Types – William And Mary University - TPACK • http://www.commonsemmedia.org/educators/curriculum/k-5 </div> <div data-bbox="184 509 968 737"> <p>Supplemental Professional Resources:</p> <ul style="list-style-type: none"> • ISTE NET-S Implementation Wiki • Partnership for 21st Century Skills • Learning Activity Types – William And Mary University - TPACK • https://sites.google.com/a/fpks.org/toolsforteachers/tools-to-enhance-instruction • http://www.typingweb.com/tutor/courses/ </div>	<div data-bbox="1010 232 1829 509"> <p>Core Instructional Resources:</p> <ul style="list-style-type: none"> • <i>BrainPop</i> • <i>Newsela</i> • https://www.discoveryeducation.com/ • https://sos.fbi.gov/en/ • <i>Google Forms</i> • <i>Typing.com</i> • <i>Canva.com</i> </div> <div data-bbox="1010 509 1829 764"> <p>Supplemental Resources:</p> <p>Suggested Lessons for Differentiation with Small Groups:</p> <ul style="list-style-type: none"> • All Standards, All Students/Case Studies • (Restructure Lessons with UDL) • Project Based Learning • Brainpop • Newsela </div> <div data-bbox="1010 764 1829 1089"> <p>Intervention Resources:</p> <ul style="list-style-type: none"> • Graphic Organizers • Scaffolded Notes • Closed Notes • Shared Notes and slide presentations • Study guides • Newsela • Brain Pop • Large Computer Keyboard • Noise canceling headphones </div>
<div data-bbox="184 1133 968 1312"> <p>Interdisciplinary Connections</p> <ul style="list-style-type: none"> • Highlight texts, themes, and reflections that connect to themes related to ethical use and cyberbullying. • All major subject areas can be integrated into the area of technology including ELA, Mathematics, Social Studies, Science and Health. • Correlates to routine units in technology. </div> <div data-bbox="184 1312 968 1401"> <p>Math Math Practice Make sense of problems and persevere in solving them.</p> </div>	<div data-bbox="1010 1133 1829 1401"> <p>Integration of Technology through NJSLs</p> <ul style="list-style-type: none"> • Use a document camera or overhead projector for shared lessons. • Use of chromebooks or iMacs • Use microphone or camera feature on computer <p>Ongoing:</p> <ul style="list-style-type: none"> • Use of Computers with headphones, Internet access, digital camera, microphones, drawing tablets • Use an overhead screen for shared information. <p>Other:</p> <ul style="list-style-type: none"> • Use Microsoft Word, Google Suite, Scratch software, iLife Suite. </div>

<p>ELA</p> <p>SL.5.2 Summarize a written text read aloud or information presented in diverse media and formats (e.g., visually, quantitatively, and orally).</p> <p>SL.5.3 Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.</p> <p>SL.5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p>SL.5.6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.</p> <p>Standard 8 Computer Science 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.</p> <p>Standard 9 Career Readiness, Life Literacy, and Key Skills 9.2.8.CAP.2: Develop a plan that includes information about career areas of interest.</p>	
<p>Integration of 21st Century Themes and Skills</p>	<p>Media Literacy Integration</p>
<ul style="list-style-type: none"> • Creativity and Innovation • Critical Thinking and Problem Solving Communication and Collaboration • Information Literacy • Media Literacy • Life and Career Skills 	<ul style="list-style-type: none"> • Ask students to look for specific things when they view videos or read print material, and then ask questions about those items • Build on the intuitive knowledge students have gained from media about the story and character • Clarify the distinction between fiction and nonfiction in different types of media reporting on the same topic • Use print materials to practice reading and comprehension skills
<p>Career Education</p>	<p>Global Perspective</p>
<ul style="list-style-type: none"> • Virtual Field Trips • EdTech Video • Google Teacher Tribe Podcasts • TechLearning.com 	<ul style="list-style-type: none"> • Black History Month • National Women's History Month • Week of Respect • Red Ribbon Week • Kindness Month

<p>Unit 6: Using Scratch to Make Animations</p>	<p>Grades: 3-5</p>
<p>Unit Summary To fully implement and integrate the use of current and future technologies with the intent of enhancing the teaching and learning process as well as fostering students' ability to problem solve and think critically.</p>	
<p>NJ Student Learning Standards</p>	
<p>2020 NJSLS - Computer Science and Design Thinking Core Ideas:</p>	

Data can be organized, displayed, and presented to highlight relationships.

The type of data being stored affects the storage requirements.

Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data.

Many factors influence the accuracy of inferences and predictions.

Different algorithms can achieve the same result.

Some algorithms are more appropriate for a specific use than others.

Programming languages provide variables, which are used to store and modify data.

A variety of control structures are used to change the flow of program execution (e.g., sequences, events, loops, conditionals).

Programs can be broken down into smaller parts to facilitate their design, implementation, and review. Programs can also be created by incorporating smaller portions of programs that already exist.

Individuals develop programs using an iterative process involving design, implementation, testing, and review.

Engineering design is a systematic and creative process of communicating and collaborating to meet a design challenge.

Often, several design solutions exist, each better in some way than the others.

Performance Expectations:

8.1.8.CS.1: Recommend improvements to computing devices in order to improve the ways users interact with the devices.

8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.

8.1.5.DA.2: Compare the amount of storage space required for different types of data.

8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.

8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim.

8.1.5.DA.5: Propose cause and effect relationships, predict outcomes, or communicate ideas using data.

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

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

8.1.5.AP.3: Create programs that include sequences, events, loops, and conditionals.

8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.

8.1.5.AP.5: Modify, remix, or incorporate pieces of existing programs into one's own work to add additional features or create a new program.

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

8.2.5.ED.1: Explain the functions of a system and its subsystems.

Unit Sequence

Part A: *Essential Questions*

Part B: *Enduring Understandings*

<ul style="list-style-type: none"> • How are digital tools used to access, manage, evaluate, and synthesize information to solve problems individually and collaboratively? • How are digital tools used to create and communicate knowledge? 	<ul style="list-style-type: none"> • The use of technology and digital tools requires knowledge and appropriate use of operations and related applications. • The use of digital tools and media-rich resources enhances creativity and the construction of knowledge. • Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems. • Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors. • Effective use of digital tools assists in gathering and managing information. • Information accessed using digital tools assists in generating solutions and making decisions. • Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. • Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. • Students apply digital tools to gather, evaluate, and use information. • Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
Unit 6: Using Scratch to Make Animations	Teaching Point
	<ul style="list-style-type: none"> • Today I will teach you to recognize the vocabulary of the program scratch. • Today I will teach you the various kinds of control items that can be used. • Today I will teach you to identify the difference between a script and a block. • Today I will teach you the concept of loops, in the form of a Forever block. • Today I will teach you to use x y coordinates to position sprites. • Today I will teach you to use green flags in script to become introduced to if then statements. • Today I will teach you to use pre-writing and explore conceptualizing an idea and then determine how to program the computer to create the idea.
Evidence of Learning (Assessments)	Accommodations and Modifications

<p>Formative Assessments:</p> <ul style="list-style-type: none"> • Pre-test • Teacher observation • Project completion/rubrics • Performance Tasks • Surveys <p>Summative Assessments:</p> <ul style="list-style-type: none"> • Unit Projects • Summative tests • Questionnaire • Demonstrations • Digital Portfolio • Learning Log <p>Benchmark Assessments:</p> <ul style="list-style-type: none"> • Initial Benchmark: Beginning of first marking period • Mid-Year Benchmark: Given in January • End of year Benchmark: end of marking period <p>Alternative Assessments:</p> <ul style="list-style-type: none"> • Choice Projects • Portfolios 	<p>Special Education:</p> <ul style="list-style-type: none"> • Curricular Modifications and Guidance for Students Educated in Special Class Settings • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Differentiation:</p> <ul style="list-style-type: none"> • <i>Preview content and concepts</i> • <i>Behavior management plan</i> • <i>Highlight text</i> • <i>Small group setting</i> • <i>Keyboards will be marked with specific colors on various keys.</i> <p>High-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Alternative formative and summative assessments</i> • <i>Guided Reading</i> • <i>Personal agendas</i> • <i>Project-based learning</i> • <i>Tiered activities/assignments</i> • <i>Varying organizers for instructions</i> <p>Low-Prep Differentiation:</p> <ul style="list-style-type: none"> • <i>Clubbing activities</i> • <i>Exploration by interest</i> • <i>Flexible groupings</i> <p>English Language Learners:</p> <ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Students at Risk for Failure:</p> <ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) <p>Gifted and Talented</p> <ul style="list-style-type: none"> • Subgroup Accommodations and Modifications • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
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	<p>Students with 504 Plans</p> <ul style="list-style-type: none"> • Subgroup Accommodations and Modification • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
<p>Core Instructional and Supplemental Materials Professional Resources:</p>	<p>Core Instructional, Supplemental, Instructional, and Intervention Resources</p>
<p>Core Professional Resources:</p> <ul style="list-style-type: none"> • https://alicekeeler.com • ISTE NET-S Implementation Wiki • http://www.typingweb.com/tutor/courses/ • https://www.tech4learning.com/ • https://www.battelleforkids.org/networks/p21 • Learning Activity Types – William And Mary University - TPACK • http://www.common sense media.org/educators/curriculum/k-5 <p>Supplemental Professional Resources:</p> <ul style="list-style-type: none"> • ISTE NET-S Implementation Wiki • Partnership for 21st Century Skills • Learning Activity Types – William And Mary University - TPACK • https://sites.google.com/a/fpks.org/toolsforteachers/tools-to-enhance-instruction • http://www.typingweb.com/tutor/courses/ 	<p>Core Instructional Resources:</p> <ul style="list-style-type: none"> • BrainPop • Newsela • https://www.discoveryeducation.com/ • https://sos.fbi.gov/en/ • Google Forms • Typing.com • Canva.com <p>Supplemental Resources:</p> <p>Suggested Lessons for Differentiation with Small Groups:</p> <ul style="list-style-type: none"> • All Standards, All Students/Case Studies • (Restructure Lessons with UDL) • Project Based Learning • Brainpop • Newsela <p>Intervention Resources:</p> <ul style="list-style-type: none"> • Graphic Organizers • Scaffolded Notes • Closed Notes • Shared Notes and slide presentations • Study guides • Newsela • Brain Pop • Large Computer Keyboard • Noise canceling headphones

Interdisciplinary Connections	Integration of Technology through NJSLS
<ul style="list-style-type: none"> Highlight texts, themes, and reflections that connect to current themes. All major subject areas can be integrated into the area of technology including ELA, Mathematics, Social Studies, Science and Health. Correlates to routine units in technology. <p>Math Math Practice Make sense of problems and persevere in solving them.</p> <p>ELA</p> <p>SL.5.2 Summarize a written text read aloud or information presented in diverse media and formats (e.g., visually, quantitatively, and orally).</p> <p>SL.5.3 Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.</p> <p>SL.5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p>SL.5.6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.</p> <p>Standard 8 Computer Science 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users.</p> <p>Standard 9 Career Readiness, Life Literacy, and Key Skills 9.2.8.CAP.2: Develop a plan that includes information about career areas of interest.</p>	<ul style="list-style-type: none"> Use a document camera or overhead projector for shared lessons. Use of chromebooks or iMacs Use microphone or camera feature on computer <p>Ongoing:</p> <ul style="list-style-type: none"> Use of Computers with headphones, Internet access, digital camera, microphones, drawing tablets Use an overhead screen for shared information. <p>Other:</p> <ul style="list-style-type: none"> Use Microsoft Word, Google Suite, Scratch software, iLife Suite.
Integration of 21st Century Themes and Skills	Media Literacy Integration
<ul style="list-style-type: none"> Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration Information Literacy Media Literacy Life and Career Skills 	<ul style="list-style-type: none"> Ask students to look for specific things when they view videos or read print material, and then ask questions about those items Build on the intuitive knowledge students have gained from media about the story and character Clarify the distinction between fiction and nonfiction in different types of media reporting on the same topic Use print materials to practice reading and comprehension skills
Career Education	Global Perspective
<ul style="list-style-type: none"> Virtual Field Trips EdTech Video Google Teacher Tribe Podcasts TechLearning.com 	<ul style="list-style-type: none"> Black History Month National Women's History Month Week of Respect Red Ribbon Week Kindness Month

