Marking Period	Unit Title	Recommended Instructional Days
Trimester 1	**Computer Programming with Kodable**	Approximately 14-16 days **(Meet Once Per Week)**

Disciplinary Concept:	**Practice:**	**Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSLS-CSDT within Unit**
IC AP	Fostering an Inclusive Computing and Design Culture Collaborating Around Computing and Design Recognizing and Defining Computational Problems Creating Computational Artifacts Testing and Refining Computational Artifacts Communicating About Computing and Design	
Core Idea:	**Performance Expectation/s:**	
Computing technology has positively and negatively changed the way individuals live and work (e.g., entertainment, communication, productivity tools). Individuals develop and follow directions as part of daily life. A sequence of steps can be expressed as an algorithm that a computer can process. Real world information can be stored and manipulated in programs as data. Computers follow precise sequences of steps that automate tasks. Complex tasks can be broken down	8.1.2.IC.1: Compare how individuals live and work before and after the implementation of new computing technology. 8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks. 8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information. 8.1.2.AP.3: Create programs with sequences and simple loops to accomplish tasks. 8.1.2.AP.4: Break down a task into a	**Essential Question/s:** What is a sequence? Why is it important to organize code and put it in the right order? Why is it important to identify and fix mistakes (test and debug) in code? Can I change the order of instructions within the program to create unique outcomes? How can I create and code my own maze? What are similarities and differences? Why is it important to understand the importance of diversity and inclusion?

into simpler instructions, some of which can be broken down even further. People work together to develop programs for a purpose, such as expressing ideas or addressing problems. The development of a program involves identifying a sequence of events, goals, and expected outcomes, and addressing errors (when necessary).	sequence of steps. 8.1.2.AP.5: Describe a program's sequence of events, goals, and expected outcomes. 8.1.2.AP.6: Debug errors in an algorithm or program that includes sequences and simple loops.	**<u>Activity Description</u>**: Watch the video "Intro to Sequencing" and discuss. Illustrate pp. 1,2,3 Sequence in Coding and complete in whole group activity. Engage in independent online practice, Love Landing and Sweet Street. Create a new fuzz add color and accessories (unplugged p.4) - name the fuzz. Discuss with students the colors and accessories they might add to their fuzz. Remind students that programmers must include representations of all people (diversity and inclusion - age appropriate) . (Fuzz may have eyeglasses, hearing aid, etc.).
Social and Emotional Learning: ***Competencies***	**Social and Emotional Learning:** ***Sub-Competencies***	Complete the rainbow (symmetry). Finish the drawing and color it in. Unplugged activity p. 5. Math connection.
Self-Awareness Self-Management Social Awareness Responsible. Decision-Making Relationship Skills	● Recognize one's feelings and thoughts ● Recognize the importance of self-confidence in handling daily tasks and challenges ● Understand and practice strategies for managing one's own emotions, thoughts, and behaviors ● Recognize and identify the thoughts, feelings, and perspectives of others ● Demonstrate an understanding of the need for mutual respect when viewpoints differ ● Develop, implement, and model effective problem-solving and critical thinking skills ● ● Establish and maintain healthy relationships ● Utilize positive communication and social	One of the Fuzzes has the correct code to solve the maze. Find the correct code for each of the mazes (unplugged debugging pp. 6, 7, 8). Bugs happen! Computer scientists are always finding errors in their code and making changes to fix them. Practice finding and fixing bugs in these underground levels in *Rainbow Road* and *Rainy Runway*. Students will be given an incorrect solution and asked to fix it. Debug pictures "Spot the Difference." Students will find the Cloudhaven item that is different in each row (unplugged activity p. 9). Combine sequencing problem solving skills to complete an online activity *Up & Away Alley, Fly Highway, Sleepy Time Terrace, and Fuzzerfly Lane.* Design and code your own rainbow maze. Add 3 stars and 2 decorations to your path (Cloudhaven Maze Maker). Discuss the Holocaust (age appropriate content). *Anne believed that she does not have any close and true friends whom she can confide in. Though she had friends, she was never able to truly open up about her feelings with them. So she decided to confide all her thoughts and innermost feelings to her diary instead.* Students will create a drawing (artistic expression) of Anne Frank using technology to write

	skills to interact effectively with others	down her thoughts instead of a journal/diary. Students will choose from technology discussed (laptops, tablets, iPads, iPhones) **Interdisciplinary Connections: Content:** ELA SL.1.1; SL.1.2; SL.1.5; L.1.1, RI.1.5

Assessments (Formative) ***To show evidence of meeting the standard/s, students will successfully engage within:***	**Assessments (Summative)** ***To show evidence of meeting the standard/s, students will successfully complete:***
Formative Assessments: ● Exit Slips ● Quizzes ● Self Assessments/Reflection ● Lesson Activity Worksheets/Drawings ● Independent Online Activities	**Benchmarks:** ● Performance Assessment ● Unit Assessment **Summative Assessments:** ● District/Department Assessment

Differentiated Student Access to Content:
Teaching and Learning *Resources/Materials*

Core Resources	**Alternate Core Resources** ***IEP/504/At-Risk/ESL***	**ELL Core Resources**	**Gifted & Talented Core Resources**
● Kodable.com	● Reteaching worksheets ● Spanish version of lesson activities	● Dictionary for native language	● Enrichment/Extension activities

Supplemental Resources

Technology:
- Chromebooks, MacBook
- Projector, Interactive Whiteboard
- Clever
- Schoology
- Kodable
- GAFE
- Google Search
- YouTube

Other:

- Pencils, crayons, markers, paper
- Kodable unplugged handouts

Differentiated Student Access to Content:
Recommended *Strategies & Techniques*

Core Resources	**Alternate Core Resources** ***IEP/504/At-Risk/ESL***	**ELL Core Resources**	**Gifted & Talented Core**
● Deliver instruction utilizing varied learning styles including audio, visual, and tactile/kinesthetic, provide individual instruction as needed, modify assessments and/or rubrics, repeat instructions as needed.	● Special Education: Adhere to IEP/504s. Utilize a multi-sensory (VAKT) approach during instruction, provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.), modify test content and/or format, allow students to retake test for additional credit, provide additional times and preferential seating as needed, review, restate and repeat directions, provide study guides, and/or break assignments into segments of shorter tasks. ● Students at Risk of School Failure: Deliver instruction utilizing varied learning styles including audio, visual, and tactile/kinesthetic, provide individual instruction as needed, modify assessments	● English Language Learners: Extend time requirements, preferred seating, positive reinforcement, check often for understanding/review, oral/visual directions/prompts when necessary, supplemental materials including use of online or paper bilingual dictionaries, and modified assessment and/or rubric.	● Provide extension activities related to the topic being discussed. Create an enhanced set of introductory activities, integrate active teaching/learning opportunities, incorporate authentic components, propose interest-based extension activities, and connect students to related talent development opportunities.

	and/or rubrics, repeat instructions as needed.		

NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS	**Disciplinary Concept:**	
	Core Ideas:	• **Brainstorming can create new, innovative ideas** • **Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem.** • **Digital tools and media resources provide access to vast stores of information that can be searched.** • **A variety of diverse sources, contexts, disciplines, and cultures provide valuable and necessary information that can be used for different purposes.** • **Digital tools have a purpose.**
	Performance Expectation/s:	• **9.4.2.CI.2; 9.4.2.CT.3; 9.4.2.IML.1; 9.4.2.IML.3; 9.4.2.TL.4**
	Career Readiness, Life Literacies, & Key Skills Practices	
	• **Act as a responsible and contributing community members and employee.** • **Demonstrate creativity and innovation.** • **Utilize critical thinking to make sense of problems and persevere in solving them.** • **Use technology to enhance productivity, increase collaboration and communicate effectively.**	

New Jersey Legislative Statutes and Administrative Code (place an "X" before each law/statute if/when present within the curriculum map)									
	Amistad Law:	X	Holocaust Law:		LGBT and Disabilities	X	Diversity & Inclusion:		Standards in Action:

	N.J.S.A. 18A 52:16A-88		*N.J.S.A. 18A:35-28*		Law: *N.J.S.A. 18A:35-4.35*		*N.J.S.A. 18A:35-4.36a*		*Climate Change*