Marking Period	Unit Title	Recommended Instructional Days
Trimester 1	**Introduction to Computer Programming/Coding**	Approximately 12-14 days **(Once Per Week)**

Disciplinary Concept:	**Practice:**	**Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSLS-CSDT within Unit**
AP	Collaborating Around Computing and Design Recognizing and Defining Computational Problems Creating Computational Artifacts Testing and Refining Computational Artifacts	
Core Idea:	**Performance Expectation/s:**	
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. Computers follow precise sequences of steps that automate tasks. Complex tasks can be broken down 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	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 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	**Essential Question/s:** What is sequencing in code? Why is it important to write code in the correct sequence? What are conditions and how do I use them when writing code? Why is it important to test and debug code? Why is it important to design places that include and celebrate all different people? **Activity Description**:

involves identifying a sequence of events, goals, and expected outcomes, and addressing errors (when necessary)	algorithm or program that includes sequences and simple loops.	Help the Fuzz get through the maze! Draw the missing arrows to tell the fuzz which way to roll to get to the end of the maze. Complete two unplugged activities (pp.2-3) in the Kodable Basics Activity Book. Engage in online activities introducing students to coding "Intro to Sequence - 1,2,3, Roll." Discuss conditions in code (If.. then). Whole class activity illustrating the unplugged worksheets for conditions (p.4) and working together to complete. Independently complete Conditions worksheet (p.5).. Whole group activity to understand debugging in code. Illustrate and discuss how to debug code utilizing unplugged worksheets (pp.6-7). Engage in online coding activities to debug code: Intro to Debugging: Buggy Basics. Draw and color the next image (unplugged activity p. 9) to finish the pattern and assess understanding of debugging. Design a rocketship for the Fuzz family and include labels (unplugged activity - Kodable Basics). Watch a video about sequencing and how programmers use it when writing code. Engage in online activities to practice sequencing: Alien Algorithms - Practice Sequencing; Off and Rolling. Watch a video about conditions understanding it is an exception to a rule and practice using conditions "Fuzzy Fiesta," "MIssion Condition," "Crossy Fuzz," Engage in unplugged activities: Conditions (pp. 1-2, 5). Engage in unplugged activities to learn more about debugging (pp.3-4) and practice those skills in an online game "Bugs Away." Discuss with students how we should respect and celebrate differences in people. Design a planet and include labels. The fuzzFamily loves to explore new planets, such as the rainbow planet of Smeeborg! Connect the correct algorithm with several different mazes (unplugged: Conditions Practice Matching Game); match conditions with the correct conclusions (If this….then That).
Social and Emotional Learning: ***Competencies***	**Social and Emotional Learning:** ***Sub-Competencies***	
Self Awareness	● Recognize one's feelings and thoughts ● Recognize the impact of one's feeling and thoughts on one's own behavior ● Recognize one's personal traits, strengths, and limitations	
Self-Management	● Recognize the skills needed to establish personal and educational goals	
Social Awareness	● Recognize and identify the thoughts, feelings, and perspectives of others ● Demonstrate an understanding of the need for mutual respect when viewpoints differ	
Responsible-Decision Making	● Develop, implement, and model effective problem-solving and critical thinking skills	
Relationship Skills	● Establish and maintain healthy relationships ● Utilize positive communication and social skills to interact effectively with others	

		Interdisciplinary Connections: **Content: ELA** RF.K.1; SL.K.1; SL.K.5; SL.K.6

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 Tickets ● Tests/Quizzes ● Lesson Activity Worksheets/Drawings ● Self Assessments/Reflection	**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
- GAFE
- Kodable
- 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	• 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.

	individual instruction as needed, modify assessments and/or rubrics, repeat instructions as needed.		

NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS	**Disciplinary Concept: Creativity and Innovation, Critical Thinking and Problem-solving, Digital Citizenship, Technological LIteracy**	
	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.** • **Collaboration can simplify the work an individual has to do and sometimes produce a better product.**
	Performance Expectation/s:	• **9.4.2.CI.1; 9.4.2.CT.3; 9.4.2.TL.4; 9.4.2.TL.7**
	Career Readiness, Life Literacies, & Key Skills Practices	
	• Act as a responsible and contributing community member 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: *N.J.S.A. 18A 52:16A-88*		Holocaust Law: *N.J.S.A. 18A:35-28*		LGBT and Disabilities Law: *N.J.S.A. 18A:35-4.35*	X	Diversity & Inclusion: *N.J.S.A. 18A:35-4.36a*		Standards in Action: *Climate Change*