Marking Period	Unit Title	Recommended Instructional Days
4	**Design Thinking: Genius Hour**	Approximately 20-24 days **(Meet Twice Per Week)**

Disciplinary Concept:	**Practice:**	**Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSLS-CSDT within Unit**
ED NT	Fostering an Inclusive Computing and Design Culture Collaborating Around Computing and Design Developing and Using Abstractions Testing and Refining Computational Artifacts Communicating About Computing and Design	
Core Idea:	**Performance Expectation/s:**	
Engineering design is a systematic, creative, and iterative process used to address local and global problems. The process includes generating ideas, choosing the best solution, and making, testing, and redesigning models or prototypes. Engineering design requirements and specifications involve making trade-offs between competing requirements and desired design features. Technology advances through the	8.2.8.ED.2: Identify the steps in the design process that could be used to solve a problem. 8.2.8.ED.3: Develop a proposal for a solution to a real-world problem that includes a model (e.g., physical prototype, graphical/technical sketch) 8.2.8.ED.5: Explain the need for optimization in a design process. 8.2.8.ED.6: Analyze how trade-offs can impact the design of a product. 8.2.8.ED.7: Design a product to address a real-world problem and document the	Topics students research can be in the area of science, history, entertainment, sports, literature, technology, and world culture. **Essential Question/s:** How do I define an essential question based on my selected topic? **Activity Description**: Students will select a topic of interest. Students must start with an essential question that cannot be answered with a simple Google search. Students must create something. Their product may be digital, physical or service oriented.

<table>
<tr><td>processes of innovation and invention which relies upon the imaginative and inventive nature of people.</td><td>iterative design process, including decisions made as a result of specific constraints and trade-offs (e.g., annotated sketches).
8.2.8.NT.4: Explain how a product designed for a specific demand was modified to meet a new demand and led to a new product.</td><td rowspan="3">Students are expected to share their projects with their class, peers and/or school.

Interdisciplinary Connections:
ELA
ELA. W7, ELA W.8.7., NJSLA ELA W.8.2. ELA RI.8.7., NJSLSA.SL2., NJSLSA.SL5., NJSLA SL.8.2., NJSLA SL.8.5, NJSLSA.R7, NJSLSA.SL2, SL.8.2., NJSLSA.SL4., NJSLSA.SL5., NJSLSA.SL6., SL.8.5.
Social Studies
6.3.8.CivicsPI.3</td></tr>
<tr><td>Social and Emotional Learning:
Competencies</td><td>Social and Emotional Learning:
Sub-Competencies</td></tr>
<tr><td>Self Awareness

Self-Management

Social Awareness

Responsible-Decision Making

Relationship Skills</td><td>● Recognize the importance of self-confidence in handling daily tasks and challenges.
● Recognize one’s personal traits, strengths, and limitations
● Recognize the skills needed to establish and achieve personal and educational goals
● Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals.
● Demonstrate an awareness of differences among individuals, groups, and others’ cultural backgrounds
● Develop implement, aand model effective problem-solving and critical thinking skills</td></tr>
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	• utiliz positive communication and social skills to interact effectively with others	

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: • Rubric • Weekly progress meetings • Presentations / videos	**Benchmark:** • Performance Assessment • Unit Assessments • Projects **Summative Assessments:** • District/Department Assessments

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**
• Online Research (google.com) • Books - Library	• Reteaching worksheets • Spanish version of lesson activities	• Dictionary for native language • Google Translate • Translation by classroom Paraprofessional	• Enrichment/Extension activities

Supplemental Resources

Technology:
- Chromebooks, MacBook
- Projector
- Smartboard
- Google.com

Other:

- Schoology
- Google Meet Conferencing Tool
- GAFE (Docs, Sheets, Slides, Drawings, Sites)
- YouTube
- Pens, Pencils, Paper, Markers, Crayons, chart paper, envelopes

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.	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.	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.

	Disciplinary Concept:	
NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS	***Core Ideas:***	**Collaboration with individuals with diverse perspectives can result in new ways of thinking and/or innovative solutions.** **Curiosity and a willingness to try new ideas contributes to the development of creativity and innovation skills.** **The ability to solve problems effectively begins with gathering data,**

		seeking resources, and applying critical thinking skills. • Sending and receiving copies of media on the internet creates the opportunity for unauthorized use of data, such as personally owned video, photos, and music. • Culture and geography can shape an individual's experiences and perspectives. • Digital tools can be used to modify and display data in various ways that can be organized to communicate ideas. • Different digital tools have different purposes. • Collaborating digitally as a team can often develop a better artifact than an individual working alone.
	Performance Expectation/s:	**9.4.8.CI.4, 9.4.8.CT.2, 9.4.8.DC.1:, 9.4.8.DC.7:, 9.4.8.IML.3, 9.4.8.IML.4, 9.4.8.IML.7, 9.4.8.IML.8, 9.4.8.IML.9, 9.4.8.IML.12, 9.4.8.TL.1, 9.4.8.TL.2:**
	Career Readiness, Life Literacies, & Key Skills Practices	
	• **Consider the environmental, social, and economic impacts of decisions** • **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** • **Work productively in team while using cultural/global competence**	

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*