Kingsway Regional School District

Committed to Excellence

Course Name: STEM Seminar	**Grade Level(s): 9**
Department: Science	**Credits: .5**
BOE Adoption Date: October 20, 2016	**Revision Date(s): October 2019, October 2021**

Course Description and Outcomes

This course prepares STEM academy students for the coursework ahead with a focus on real-world application. Topics include career exploration in Science, Technology, Engineering and Mathematics as well as service learning. Students will be introduced to service learning in this course, which they will complete every year from the onset. By the end of the course, students will have 1) been exposed to multiple careers in the STEM field and reflected on their interest in that field, 2) will have engaged in teams to work collaboratively to problem-solve and 3) will have completed 20 hours of service learning and recorded evidence of this in the form of logs, reflections and proposals.

Proficiencies and Pacing Guide:

Course Title: STEM Seminar
Prerequisite(s): N/A

Unit Title:	**Duration/ Month(s)**	**Related Standards:**	**Learning Goals:**	**Topics and Skills: Identify the DOK Level**
Unit 1: STEM Careers	September- 5 weeks	NJSLS.9.2.12.CAP.4 NJSLS.9.2.12.CAP.5 NJSLS.9.2.12.CAP.6 NJSLS.9.2.12.CAP.1 NJSLS.9.2.12.CAP.8 NJSLS.9.2.12.CAP.10 NJSLS.9.2.12.CAP.7 NJSLS.9.1.12.PB.2 NJSLS.9.4.12.CI.2 NJSLS.9.3.ST.4 NJSLS.9.3.ST.5 NJSLS-CLKS.1-9	1. Students will be able to determine their key areas of interest within STEM through the completion of Naviance Career Exploration Tools. (1 week) 2. Students will be able to distinguish between specific careers in STEM. (1 week) 3. Students will be able to determine a STEM field that most relates to their interests and investigate deeper through their Career Project. (2 weeks) 4. Students will be able to explain what a "Service Learning Project" is. Students will then begin to plan and execute a teacher-facilitated Service Learning Project based upon one of the branches of STEM. Students will have SLP check-ins throughout the semester. (1 week)	1. Investigate personal interests in STEM as well as careers of interest using Naviance. (DOK 3) 2. Compare careers in STEM (DOK 2) 3. Investigate colleges that specialize in each student's chosen STEM career (DOK 3) 4. Construct a schooling plan required for a specific STEM career (DOK 3) 5. Estimate the cost of acquiring a specific degree(s) (DOK 2) 6. Analyze the average base salaries and projected job growth/decline of specific careers in STEM. (DOK 4) 7. Create a presentation that would take students through a day in the life of a person in a specific STEM job (DOK 4) 8. Each student will construct a current resume. (DOK 3) 9. Formulate possible service learning projects associated with STEM (DOK 3) 10. Students will choose one Service Learning Project topic associated with STEM, which will have an impact on the community, to complete over the course of the semester. (DOK 3) 1.
Unit 2: Science	2 weeks	NJSLS.9.2.12.CAP.5 NJLSL.9.2.12.CAP.6 NJSLS.9.2.12.CAP.8 NJSLS.9.3.ST-SM.4 NJSLS.9.4.12.CI.1 NJSLS.9.4.12.CI.2	1. Students will be able to distinguish between specific careers in the science field through in-class investigations as well as through seminars/webinars with 1-2 science industry experts. (1 week) 2. Students will be able to determine their key areas of interest within the science field through the	1. Investigate different branches of science. (Physical Science, Earth Science, and Life Science) (DOK 3) 2. Compare and contrast science careers within the 3 main branches of science. (DOK 3)

Unit Title:	Duration/ Month(s)	Related Standards:	Learning Goals:	Topics and Skills: Identify the DOK Level
		NJSLS.9.4.12.CI.3 NJSLS.9.4.12.CT.1 NJSLS.9.4.12.CT.2 NJSLS.9.4.12.IML.2 NJSLS.9.4.12.GCA.1 NJSLS.9.3.ST.4 NJSLS.9.3.ST.5 NJSLS.9.3.ST-ET.1 NJSLS.9.3.ST-ET.2 NJSLS.9.3.ST-ET.5 NJSLS.CLKS.1-9	completion of an inquiry-based project utilizing the scientific method. (1 week)	3. Analyze career opportunities in science fields through interactive webinars/seminars delivered by scientists currently working in the industry. (DOK 4) 4. Complete a reflection based off of industry expert webinars/seminars. (DOK 4) 5. Evaluate the scientific method as a tool for scientific investigation and problem-solving. (DOK 3) 6. Design, conduct, and analyze an inquiry-based science project utilizing the scientific method as a framework for investigation and problem-solving. (DOK 4) 7. Present findings and project reflections from inquiry-based science projects. (DOK 4)
Unit 3: Technology	2 weeks	NJSLS.9.2.12.CAP.5 NJLSL.9.2.12.CAP.6 NJSLS.9.2.12.CAP.8 NJSLS.9.3.ST-SM.4 NJSLS.9.4.12.CI.1 NJSLS.9.3.ST.5 NJSLS.9.3.ST-ET.3 NJSLS.9.3.ST-ET.1 NJSLS.9.3.ST-ET.2 NJSLS.9.3.ST-ET.5 NJSLS.CLKS.1-9	1. Students will be able to distinguish between specific careers in the technology field through seminars/webinars with 1-2 technology industry experts. (1 week) 2. Students will be able to explore areas of interest within the technology field using a technology-based coding app. (1 week)	1. Investigate the variety of careers within the technology field. (DOK 3) 2. Analyze career opportunities in technology through interactive webinars/seminars delivered by professionals currently working in the industry. (DOK 4) 3. Complete a reflection based off of industry expert webinars/seminars. (DOK 4) 4. Complete activities which include an introduction to coding using a technology-based coding app. (DOK 1-2)

Unit Title:	Duration/ Month(s)	Related Standards:	Learning Goals:	Topics and Skills: Identify the DOK Level
				5. Create an animated story or interactive game using a technology-based coding app. (DOK 4) 6. Complete a reflection based off of the story or game created. (DOK 4)
Unit 4: Engineering	2 weeks	NJSLS.9.2.12.CAP.5 NJLSL.9.2.12.CAP.6 NJSLS.9.2.12.CAP.8 NJSLS.9.3.ST-SM.4 NJSLS.9.4.12.CI.1 NJSLS.9.4.12.IML.3 NJSLS.9.3.ST.1 NJSLS.9.3.ST.5 NJSLS.9.3.ST-ET.4 NJSLS.9.3.ST-ET.1 NJSLS.9.3.ST-ET.2 NJSLS.9.3.ST-ET.5 NJSLS.CLKS.1-9	1. Students will be able to distinguish between specific careers in the engineering field through seminars/webinars with 1-2 technology industry experts. (1 week) 2. Students will be able to explore areas of interest within the engineering field while completing a project utilizing the Engineering Design Process . (1 week)	1. Investigate the variety of careers within the engineering field. (DOK 3) 2. Analyze career opportunities in engineering through interactive webinars/seminars delivered by engineers currently working in the industry. (DOK 4) 3. Complete a reflection based off of industry expert webinars/seminars. (DOK 4) 4. Design an investigation for an engineering problem, such as bridge building, or engineering a building to withstand an earthquake, using the Engineering Design Process as a framework. (DOK 3) 5. Conduct an investigation to solve an engineering design problem using the Engineering Design process as a framework. Students will test and revise their solutions and report their findings. (DOK 4) 6. Complete a reflection based off of the Engineering Design Project. (DOK 4)
Unit 5: Math	2 weeks	NJSLS.9.2.12.CAP.5 NJLSL.9.2.12.CAP.6 NJSLS.9.2.12.CAP.8	1. Students will be able to distinguish between specific careers in the math field through seminars/webinars with 1-2 math industry experts. (1 week)	1. Investigate the variety of careers within the math field. (DOK 3)

Unit Title:	Duration/ Month(s)	Related Standards:	Learning Goals:	Topics and Skills: Identify the DOK Level
		NJSLS.9.3.ST-SM.4 NJSLS.9.4.12.CI.1 NJSLS.9.3.ST.5 NJSLS.9.3.ST-ET.1 NJSLS.9.3.ST-ET.2 NJSLS.9.3.ST-ET.5 NJSLS.CLKS.1-9	2. Students will be able to explore the impact of minority STEM contributors while completing a project based on the movie adaptation of the *Hidden Figures* novel, which follows the contributions of three black women, Katherine Johnson, Dorothy Vaughan, and Mary Jackson, to NASA in the 1960s. (1 week)	2. Analyze career opportunities in engineering through interactive webinars/seminars delivered by engineers currently working in the industry. (DOK 4) 3. Complete a reflection based off of industry expert webinars/seminars. (DOK 4) 4. Identify themes in the movie *Hidden Figures* and/or passages from the book *Hidden Figures.* (DOK 2) 5. Participate in a class discussion which assesses the struggles of underrepresented and minority individuals in STEM careers, using *Hidden Figures* as an example. (DOK 3) 6. Complete a reflection based on *Hidden Figures* and the resulting class discussion. (DOK 4) 7. Applying concepts from reflections and classroom discussions, complete a research project on one minority individual who made an impact on the field of STEM. (DOK 4)
Unit 6: Service Learning	5 weeks	NJSLS.CLKS.1 NJSLS.CLKS.3 NJSLS.CLKS.4 NJSLS.CLKS.5 NJSLS.CLKS.6 NJSLS.9.2.12.CAP.5 NJSLS.9.2.12.CAP.6 NJSLS.9.1.12.CFR.1 NJSLS.9.1.12.PB.2	1. Students will complete a teacher-facilitated service learning project which encompasses civic duty and STEM content knowledge. Students will complete any necessary research, building, and/or preparation steps to get their project ready for presentation. (4 weeks) 2. Students will present and reflect on their service learning project, its effectiveness, and its implementation. (1 week)	1. Organize materials and budget estimating what is needed for project planning. (DOK 2) 2. Research background knowledge for the project topic, continue research to provide context for findings, and/or conduct research to assist in testing the project hypothesis. (DOK 4)

Unit Title:	Duration/ Month(s)	Related Standards:	Learning Goals:	Topics and Skills: Identify the DOK Level
		NJSLS.9.4.12.CI.1 NJSLS.9.4.12.CI.2 NJSLS.9.4.12.CI.3 NJSLS.9.4.12.CT.1 NJSLS.9.4.12.CT.2 NJSLS.9.4.12.CT.3 NJSLS.9.4.12.IML.2 NJSLS.9.4.12.TL.4 NJSLS.9.3.ST.4 NJSLS.9.3.ST.5 NJSLS.9.3.ST-SM.2 NJSLS.9.3.ST-ET.1 NJSLS.9.3.ST-ET.2 NJSLS.9.3.ST-ET.5 NJSLS.8.2.12.ED.1 NJSLS.8.2.12.ED.4 NJSLS.8.2.12.ED.5 NJSLS.8.2.12.ED.6 NJSLS.8.2.12.ETW.3		3. Present findings and/or deliver the service learning project to the target audience. (DOK 4) 4. Reflect on how the project that the student has chosen applies STEM concepts and connects with the service that they have provided to the community. (DOK 4)

Unit 1: STEM Careers	Recommended Duration: 5 weeks
Unit Description: During this unit, students will explore careers in STEM. This will be facilitated through the use of Naviance Career Finder surveys. Students will explore colleges, majors, and skills, and job opportunities associated with various careers in STEM.	
To ensure the needs of all learners (including but not limited to, special education, 504, ELL, & advanced learners) are met when delivering instruction and assessing students, please refer to the district approved Instructional & Assessments Supports: Accommodations/Modification Reference Sheet. These must be used in the planning and delivery of instruction. Specific student learning activities, differentiated instructional techniques and accommodations/modifications are noted in Schoology.	

Learning Goals:	Learning Objectives:
1. Students will be able to determine their key areas of interest within STEM through the completion of Naviance Career Exploration Tools. 2. Students will be able to distinguish between specific careers in STEM and determine a STEM field that most relates to their interests. Students will investigate deeper through their Career Project.	1. Investigate personal interests in STEM as well as careers of interest using Naviance. 2. Compare careers in STEM, investigate colleges that specialize in each student's chosen STEM career and estimate the cost of acquiring a specific degree(s) 3. Analyze the average base salaries and projected job growth/decline of specific careers in STEM. 4. Create a presentation that would take students through a day in the life of a person in a specific STEM job 5. Each student will construct a current resume. 6. Formulate possible service learning projects associated with STEM
Essential Questions:	**Enduring Understandings:**
Why are careers in STEM important to students and society?	A career in STEM would impact society in a socio, cultural and economic aspect of life. A career in STEM would impact a student's life in a variety of ways including salary, job security and enjoyment, lifestyle, and educational experiences.

Secondary Assessments (Formative)	Primary Assessments(Summative):
Naviance Career Finders Quizzes Draft Service Learning Project Proposal	STEM Career Project and Presentation

Interdisciplinary Connections: Core Area Connections

ELA

- Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.
- Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
- Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Read and comprehend complex informational texts independently and proficiently.
- Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

V&PA

- Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

Career Ready Practices: Note Career Ready Practices used

NJSLS.CLKS.1 Act as a responsible and contributing community member and employee.
NJSLS.CLKS.2 Attend to financial well-being.
NJSLS.CLKS.3 Consider the environmental, social and economic impacts of decisions.
NJSLS.CLKS.4 Demonstrate creativity and innovation.
NJSLS.CLKS.5 Utilize critical thinking to make sense of problems and persevere in solving them.
NJSLS.CLKS.6 Model integrity, ethical leadership and effective management.
NJSLS.CLKS.7 Plan education and career paths aligned to personal goals.
NJSLS.CLKS.8 Use technology to enhance productivity, increase collaboration and communicate effectively.
NJSLS.CLKS.9 Work productively in teams while using cultural/global competence.

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit

NJSLS.9.2.12.CAP.1 Analyze unemployment rates for workers with different levels of education and how the economic, social, and political conditions of a time period are affected by a recession.
NJSLS.9.2.12.CAP.4 Evaluate different careers and develop various plans (e.g., costs of public, private, training schools) and timetables for achieving them, including educational/training requirements, costs, loans, and debt repayment.
NJSLS.9.2.12.CAP.5 Assess and modify a personal plan to support current interests and postsecondary plans.
NJSLS.9.2.12.CAP.6 Identify transferable skills in career choices and design alternative career plans based on those skills.
NJSLS.9.2.12.CAP.7 Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.
NJSLS.9.2.12.CAP.8 Determine job entrance criteria (e.g., education credentials, math/writing/ reading comprehension tests, and drug tests) used by employers in various industry sectors.

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit
NJSLS.9.2.12.CAP.10 Identify strategies for reducing overall costs of postsecondary education (e.g., tuition assistance, loans, grants, scholarships, and student loans). NJSLS.9.1.12.PB.2: Prioritize financial decisions by considering alternatives and possible consequences. NJSLS.9.4.12.CI.2: Identify career pathways that highlight personal talents, skills, and abilities. NJSLS.9.3.ST.4: Understand the nature and scope of the Science, Technology, Engineering, and Mathematics career cluster and role of STEM in society and the economy NJSLS.9.3.ST.5:Demonstrate an understanding of the breadth of career opportunities and means to those opportunities in each of the STEM pathways
Integration of Technology: Note applicable 2020 standards 8.1 & 8.2 used within the unit
NJSLS.8.2.12.ED.1: Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers. NJSLS.8.2.12.ED.4: Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience. NJSLS.8.2.12.ED.5: Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics). NJSLS.8.2.12.ED.6: Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor). NJSLS.8.2.12.ETW.3: Identify a complex, global environmental or climate change issue, develop a systemic plan of investigation, and propose an innovative sustainable solution
Course/Unit Resources:
NewsELA Schoology materials Student driven researched materials APA Formatting, Citations, and Good Research Practices (Library Day, a physical resource still needs to be created) Kingsway Research Databases Naviance (specifically career match resources) Student Resume Rubric and Template Career Project Rubric and Sample

Unit 2: Science	Recommended Duration: 4 weeks
Unit Description: During this unit, students will explore careers in the sciences (excluding technology, engineering, and math). This will include medical, biological, veterinary, social, behavioral, earth, and space sciences. Students will also explore their key areas of interest in this portion of STEM utilizing the scientific method as a framework for inquiry.	
To ensure the needs of all learners (including but not limited to, special education, 504, ELL, & advanced learners) are met when delivering instruction and assessing students, please refer to the district approved Instructional & Assessments Supports: Accommodations/Modification Reference Sheet. These must be used in the planning and delivery of instruction. Specific student learning activities, differentiated instructional techniques and accommodations/modifications are noted in Schoology.	

Learning Goals:	Learning Objectives:
1. Students will be able to distinguish between specific careers in the science field through in-class investigations as well as through seminars/webinars with 1-2 science industry experts. 2. Students will be able to determine their key areas of interest within the science field through the completion of an inquiry-based project utilizing the scientific method.	1. Students will investigate the three different branches of science, as well as careers in each respective branch. 2. Students will analyze career opportunities in science fields through interactive webinars/seminars delivered by scientists currently working in the industry. 3. Students will design, conduct, and analyze an inquiry-based science project utilizing the scientific method as a framework for investigation and problem-solving. This project will be based on the students key areas of interest in science.
Essential Questions:	**Enduring Understandings:**
How could a career in science have an impact in society? How could a career in science impact a student's life?	A career in science would impact society in a socio, cultural and economic aspect of life. A career in science would impact a student's life in a variety of ways including salary, job security and enjoyment, lifestyle, and educational experiences.

Secondary Assessments (Formative)	Primary Assessments(Summative):
Science Careers Reflection Inquiry-Based Science Project Reflection	Inquiry-Based Science Project

Interdisciplinary Connections: Core Area Connections
ELA • Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words. • Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

Interdisciplinary Connections: Core Area Connections

- Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Read and comprehend complex informational texts independently and proficiently.
- Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

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- Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

Career Ready Practices: Note Career Ready Practices used

NJSLS.CLKS.1 Act as a responsible and contributing community member and employee.
NJSLS.CLKS.2 Attend to financial well-being.
NJSLS.CLKS.3 Consider the environmental, social and economic impacts of decisions.
NJSLS.CLKS.4 Demonstrate creativity and innovation.
NJSLS.CLKS.5 Utilize critical thinking to make sense of problems and persevere in solving them.
NJSLS.CLKS.6 Model integrity, ethical leadership and effective management.
NJSLS.CLKS.7 Plan education and career paths aligned to personal goals.
NJSLS.CLKS.8 Use technology to enhance productivity, increase collaboration and communicate effectively.
NJSLS.CLKS.9 Work productively in teams while using cultural/global competence.

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit

NJSLS.9.2.12.CAP.5 Assess and modify a personal plan to support current interests and postsecondary plans.
NJLSL.9.2.12.CAP.6 Identify transferable skills in career choices and design alternative career plans based on those skills.
NJSLS.9.2.12.CAP.8 Determine job entrance criteria (e.g., education credentials, math/writing/ reading comprehension tests, and drug tests) used by employers in various industry sectors.
NJSLS.9.3.ST-SM.4 Apply critical thinking skills to review information, explain statistical analysis, and to translate, interpret and summarize research and statistical data
NJSLS.9.4.12.CI.1 Demonstrate the ability to reflect, analyze, and use creative skills and ideas
NJSLS.9.4.12.CI.2 Identify career pathways that highlight personal talents, skills, and abilities
NJSLS.9.4.12.CI.3 Investigate new challenges and opportunities for personal growth, advancement, and transition
NJSLS.9.4.12.CT.1 Identify problem-solving strategies used in the development of an innovative product or practice
NJSLS.9.4.12.CT.2 Explain the potential benefits of collaborating to enhance critical thinking and problem solving
NJSLS.9.4.12.IML.2 Evaluate digital sources for timeliness, accuracy, perspective, credibility of the source, and relevance of information, in media, data, or other resources (e.g., NJSLSA.W8, Social Studies Practice: Gathering and Evaluating Sources.)

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit
NJSLS.9.4.12.GCA.1 Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political. economic, cultural) may work better than others (e.g., SL.11-12.1., HS-ETS1-1, HS-ETS1-2, HS-ETS1-4, 6.3.12.GeoGI.1, 7.1.IH.IPERS.6, 7.1.IL.IPERS.7, 8.2.12.ETW.3). NJSLS.9.3.ST.4 Understand the nature and scope of the Science, Technology, Engineering, and Mathematics career cluster and role of STEM in society and the economy NJSLS.9.3.ST.5 Demonstrate an understanding of the breadth of career opportunities and means to those opportunities in each of the STEM pathways NJSLS.9.3.ST-ET.1 Use STEM concepts and processes to solve problems involving design and/or production NJSLS.9.3.ST-ET.2 Display and communicate STEM information NJSLS.9.3.ST-ET.5 Apply the knowledge learned in STEM to solve problems

Integration of Technology: Note applicable 2020 standards 8.1 & 8.2 used within the unit
NJSLS.8.2.12.ED.1: Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers. NJSLS.8.2.12.ED.4: Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience. NJSLS.8.2.12.ED.5: Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics). NJSLS.8.2.12.ED.6: Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor). NJSLS.8.2.12.ETW.3: Identify a complex, global environmental or climate change issue, develop a systemic plan of investigation, and propose an innovative sustainable solution

Course/Unit Resources:
NewsELA Schoology materials Student driven researched materials APA Formatting, Citations, and Good Research Practices (Library Day, a physical resource still needs to be created) Kingsway Research Databases Branches of Science and Careers in Science Presentation Scientific Method Materials Inquiry-Based Science Project Materials, which could include the following: • Cellular/Microbiology (Virus) Project Materials • Climate Change/Environmental Science Project Materials • Found materials, classroom building materials Science Project Rubric

Course/Unit Resources:
Inquiry- Based Science Project Reflection

Unit 3: Technology	**Recommended Duration:** 2 weeks
Unit Description: During this unit, students will explore careers in technology (excluding engineering). This will include careers such as computer science, programming, photonics, architecture. Students will explore skills and job opportunities associated with this portion of STEM.	
To ensure the needs of all learners (including but not limited to, special education, 504, ELL, & advanced learners) are met when delivering instruction and assessing students, please refer to the district approved Instructional & Assessments Supports: Accommodations/Modification Reference Sheet. These must be used in the planning and delivery of instruction. Specific student learning activities, differentiated instructional techniques and accommodations/modifications are noted in Schoology.	

Learning Goals:	**Learning Objectives:**
1. Students will be able to distinguish between specific careers in the technology field through seminars/webinars with 1-2 technology industry experts. 2. Students will be able to explore areas of interest within the technology field using a technology-based coding app.	1. Investigate the variety of careers within the technology field and analyze career opportunities in technology through interactive webinars/seminars delivered by professionals currently working in the industry. 2. Create an animated story or interactive game using a technology-based coding app and complete a reflection based off of the story or game created.
Essential Questions:	**Enduring Understandings:**
How could a career in technology have an impact in society? How could a career in technology impact a student's life?	A career in technology would impact society in a socio, cultural and economic aspect of life A career in technology would impact a student's life in a variety of ways including salary, job security and enjoyment, lifestyle, and educational experiences.

Secondary Assessments (Formative)	**Primary Assessments(Summative):**
Coding Storyline or Game Planning Coding Storyline or Game Reflection	Coding Project

Interdisciplinary Connections: Core Area Connections

ELA

- Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.
- Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
- Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Read and comprehend complex informational texts independently and proficiently.
- Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

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- Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

Career Ready Practices: Note Career Ready Practices used

NJSLS.CLKS.1 Act as a responsible and contributing community member and employee.
NJSLS.CLKS.2 Attend to financial well-being.
NJSLS.CLKS.3 Consider the environmental, social and economic impacts of decisions.
NJSLS.CLKS.4 Demonstrate creativity and innovation.
NJSLS.CLKS.5 Utilize critical thinking to make sense of problems and persevere in solving them.
NJSLS.CLKS.6 Model integrity, ethical leadership and effective management.
NJSLS.CLKS.7 Plan education and career paths aligned to personal goals.
NJSLS.CLKS.8 Use technology to enhance productivity, increase collaboration and communicate effectively.
NJSLS.CLKS.9 Work productively in teams while using cultural/global competence.

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit

NJSLS.9.2.12.CAP.5 Assess and modify a personal plan to support current interests and postsecondary plans.
NJLSL.9.2.12.CAP.6 Identify transferable skills in career choices and design alternative career plans based on those skills.
NJSLS.9.2.12.CAP.8 Determine job entrance criteria (e.g., education credentials, math/writing/ reading comprehension tests, and drug tests) used by employers in various industry sectors.
NJSLS.9.3.ST-SM.4 Apply critical thinking skills to review information, explain statistical analysis, and to translate, interpret and summarize research and statistical data
NJSLS.9.4.12.CI.1 Demonstrate the ability to reflect, analyze, and use creative skills and ideas
NJSLS.9.4.12.CI.2 Identify career pathways that highlight personal talents, skills, and abilities
NJSLS.9.4.12.CI.3 Investigate new challenges and opportunities for personal growth, advancement, and transition

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit
NJSLS.9.4.12.CT.1 Identify problem-solving strategies used in the development of an innovative product or practice NJSLS.9.4.12.CT.2 Explain the potential benefits of collaborating to enhance critical thinking and problem solving NJSLS.9.4.12.IML.2 Evaluate digital sources for timeliness, accuracy, perspective, credibility of the source, and relevance of information, in media, data, or other resources (e.g., NJSLSA.W8, Social Studies Practice: Gathering and Evaluating Sources.) NJSLS.9.3.ST.4 Understand the nature and scope of the Science, Technology, Engineering, and Mathematics career cluster and role of STEM in society and the economy NJSLS.9.3.ST.5 Demonstrate an understanding of the breadth of career opportunities and means to those opportunities in each of the STEM pathways NJSLS.9.3.ST-ET.1 Use STEM concepts and processes to solve problems involving design and/or production NJSLS.9.3.ST-ET.2 Display and communicate STEM information NJSLS.9.3.ST-ET.3 Apply processes and concepts for the use of technological tools in STEM NJSLS.9.3.ST-ET.5 Apply the knowledge learned in STEM to solve problems
Integration of Technology: Note applicable 2020 standards 8.1 & 8.2 used within the unit
NJSLS.8.2.12.ED.1: Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers. NJSLS.8.2.12.ED.4: Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience. NJSLS.8.2.12.ED.5: Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics). NJSLS.8.2.12.ED.6: Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor). NJSLS.8.2.12.ETW.3: Identify a complex, global environmental or climate change issue, develop a systemic plan of investigation, and propose an innovative sustainable solution

Course/Unit Resources:
NewsELA Schoology materials Student driven researched materials APA Formatting, Citations, and Good Research Practices (Library Day, a physical resource still needs to be created) Kingsway Research Databases Careers in Technology and Use of Coding Presentation Scratch MIT Coding Project Reflection Student driven research materials (tutorials)

Unit 4: Engineering	**Recommended Duration:** 2 weeks
Unit Description: During this unit, students will explore careers in engineering. This will include the various types of engineering such as civil, biomedical, mechanical, and electrical. They will explore skills and job opportunities associated with this portion of STEM.	
To ensure the needs of all learners (including but not limited to, special education, 504, ELL, & advanced learners) are met when delivering instruction and assessing students, please refer to the district approved Instructional & Assessments Supports: Accommodations/Modification Reference Sheet. These must be used in the planning and delivery of instruction. Specific student learning activities, differentiated instructional techniques and accommodations/modifications are noted in Schoology.	

Learning Goals:	**Learning Objectives:**
1. Students will be able to distinguish between specific careers in the engineering field through seminars/webinars with 1-2 technology industry experts. 2. Students will be able to explore areas of interest within the engineering field while completing a project utilizing the Engineering Design Process .	1. Investigate the variety of careers within the engineering field and analyze career opportunities in engineering through interactive webinars/seminars delivered by engineers currently working in the industry. 2. Design an investigation for an engineering problem, such as bridge building, or engineering a building to withstand an earthquake, using the Engineering Design Process as a framework. 3. Conduct an investigation to solve an engineering design problem using the Engineering Design process as a framework. Students will test and revise their solutions and report their findings.
Essential Questions:	**Enduring Understandings:**
How could a career in engineering have an impact in society? How could a career in engineering impact a student's life?	A career in engineering would impact society in a socio, cultural and economic aspect of life A career in engineering would impact a student's life in a variety of ways including salary, job security and enjoyment, lifestyle, and educational experiences.

Secondary Assessments (Formative)	**Primary Assessments(Summative):**
Engineering Design Project Plan Engineering Design Project Reflection	Engineering Design Final Project

Interdisciplinary Connections: Core Area Connections
ELA • Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words. • Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. • Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism. • Read and comprehend complex informational texts independently and proficiently. • Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence. V&PA • Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience. • Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
Career Ready Practices: Note Career Ready Practices used
NJSLS.CLKS.1 Act as a responsible and contributing community member and employee. NJSLS.CLKS.2 Attend to financial well-being. NJSLS.CLKS.3 Consider the environmental, social and economic impacts of decisions. NJSLS.CLKS.4 Demonstrate creativity and innovation. NJSLS.CLKS.5 Utilize critical thinking to make sense of problems and persevere in solving them. NJSLS.CLKS.6 Model integrity, ethical leadership and effective management. NJSLS.CLKS.7 Plan education and career paths aligned to personal goals. NJSLS.CLKS.8 Use technology to enhance productivity, increase collaboration and communicate effectively. NJSLS.CLKS.9 Work productively in teams while using cultural/global competence.

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit
NJSLS.9.2.12.CAP.5 Assess and modify a personal plan to support current interests and postsecondary plans. NJLSL.9.2.12.CAP.6 Identify transferable skills in career choices and design alternative career plans based on those skills. NJSLS.9.2.12.CAP.8 Determine job entrance criteria (e.g., education credentials, math/writing/ reading comprehension tests, and drug tests) used by employers in various industry sectors. NJSLS.9.3.ST-SM.4 Apply critical thinking skills to review information, explain statistical analysis, and to translate, interpret and summarize research and statistical data NJSLS.9.4.12.CI.1 Demonstrate the ability to reflect, analyze, and use creative skills and ideas NJSLS.9.4.12.CI.2 Identify career pathways that highlight personal talents, skills, and abilities NJSLS.9.4.12.CI.3 Investigate new challenges and opportunities for personal growth, advancement, and transition NJSLS.9.4.12.CT.1 Identify problem-solving strategies used in the development of an innovative product or practice

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit
NJSLS.9.4.12.CT.2 Explain the potential benefits of collaborating to enhance critical thinking and problem solving NJSLS.9.4.12.IML.2 Evaluate digital sources for timeliness, accuracy, perspective, credibility of the source, and relevance of information, in media, data, or other resources (e.g., NJSLSA.W8, Social Studies Practice: Gathering and Evaluating Sources.) NJSLS.9.4.12.IML.3 Analyze data using tools and models to make valid and reliable claims, or to determine optimal design solutions NJSLS.9.3.ST.1 Apply engineering skills in a project that requires project management, process control and quality assurance NJSLS.9.3.ST.4 Understand the nature and scope of the Science, Technology, Engineering, and Mathematics career cluster and role of STEM in society and the economy NJSLS.9.3.ST.5 Demonstrate an understanding of the breadth of career opportunities and means to those opportunities in each of the STEM pathways NJSLS.9.3.ST-ET.1 Use STEM concepts and processes to solve problems involving design and/or production NJSLS.9.3.ST-ET.2 Display and communicate STEM information NJSLS.9.3.ST-ET.4 Apply the elements of the design process NJSLS.9.3.ST-ET.5 Apply the knowledge learned in STEM to solve problems
Integration of Technology: Note applicable 2020 standards 8.1 & 8.2 used within the unit
NJSLS.8.2.12.ED.1: Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers. NJSLS.8.2.12.ED.4: Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience. NJSLS.8.2.12.ED.5: Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics). NJSLS.8.2.12.ED.6: Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor). NJSLS.8.2.12.ETW.3: Identify a complex, global environmental or climate change issue, develop a systemic plan of investigation, and propose an innovative sustainable solution
Course/Unit Resources:
NewsELA Schoology materials Student driven researched materials APA Formatting, Citations, and Good Research Practices Kingsway Research Databases Careers in Engineering and Engineering Design Process Presentation Engineering Design Project Directions Engineering Design Project Physical materials (can be found in classroom materials or recycled materials from home) Student driven research materials Engineering Design Project Reflection

Unit 5: Math	**Recommended Duration:** 2 weeks
Unit Description: During this unit, students will explore careers in math. This will include careers such as actuarial sciences, statistics, and accounting. They will explore skills and job opportunities associated with this portion of STEM.	
To ensure the needs of all learners (including but not limited to, special education, 504, ELL, & advanced learners) are met when delivering instruction and assessing students, please refer to the district approved Instructional & Assessments Supports: Accommodations/Modification Reference Sheet. These must be used in the planning and delivery of instruction. Specific student learning activities, differentiated instructional techniques and accommodations/modifications are noted in Schoology.	

Learning Goals:	**Learning Objectives:**
1. Students will be able to distinguish between specific careers in the math field through seminars/webinars with 1-2 math industry experts. 2. Students will be able to explore the impact of minority STEM contributors while completing a project based on the movie adaptation of the *Hidden Figures* novel, which follows the contributions of three black women, Katherine Johnson, Dorothy Vaughan, and Mary Jackson, to NASA in the 1960s.	1. Investigate the variety of careers within the math field and analyze career opportunities in engineering through interactive webinars/seminars delivered by engineers currently working in the industry. 2. Identify themes in the movie *Hidden Figures* and/or passages from the book *Hidden Figures* and participate in a class discussion which assesses the struggles of underrepresented and minority individuals in STEM careers, using *Hidden Figures* as an example. 3. Applying concepts from reflections and classroom discussions, complete a research project on one minority individual who made an impact on the field of STEM.
Essential Questions:	**Enduring Understandings:**
How could a career in math have an impact in society? How could a career in math impact a student's life?	A career in math would impact society in a socio, cultural and economic aspect of life A career in math would impact a student's life in a variety of ways including salary, job security and enjoyment, lifestyle, and educational experiences.

Secondary Assessments (Formative)	**Primary Assessments(Summative):**
Hidden Figures Reflection	Minority STEM Contributor Research Project

Interdisciplinary Connections: Core Area Connections

ELA

- Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.
- Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
- Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Read and comprehend complex informational texts independently and proficiently.
- Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

V&PA

- Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

Career Ready Practices: Note Career Ready Practices used

NJSLS.CLKS.1 Act as a responsible and contributing community member and employee.
NJSLS.CLKS.2 Attend to financial well-being.
NJSLS.CLKS.3 Consider the environmental, social and economic impacts of decisions.
NJSLS.CLKS.4 Demonstrate creativity and innovation.
NJSLS.CLKS.5 Utilize critical thinking to make sense of problems and persevere in solving them.
NJSLS.CLKS.6 Model integrity, ethical leadership and effective management.
NJSLS.CLKS.7 Plan education and career paths aligned to personal goals.
NJSLS.CLKS.8 Use technology to enhance productivity, increase collaboration and communicate effectively.
NJSLS.CLKS.9 Work productively in teams while using cultural/global competence.

Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit

NJSLS.9.4.12.CT.1 Identify problem-solving strategies used in the development of an innovative product or practice
NJSLS.9.4.12.CT.2 Explain the potential benefits of collaborating to enhance critical thinking and problem solving
NJSLS.9.4.12.IML.2 Evaluate digital sources for timeliness, accuracy, perspective, credibility of the source, and relevance of information, in media, data, or other resources (e.g., NJSLSA.W8, Social Studies Practice: Gathering and Evaluating Sources.)
NJSLS.9.3.ST.4 Understand the nature and scope of the Science, Technology, Engineering, and Mathematics career cluster and role of STEM in society and the economy
NJSLS.9.3.ST.5 Demonstrate an understanding of the breadth of career opportunities and means to those opportunities in each of the STEM pathways
NJSLS.9.3.ST-ET.1 Use STEM concepts and processes to solve problems involving design and/or production
NJSLS.9.3.ST-ET.2 Display and communicate STEM information
NJSLS.9.3.ST-ET.5 Apply the knowledge learned in STEM to solve problems

Integration of Technology: Note applicable 2020 standards 8.1 & 8.2 used within the unit
NJSLS.8.2.12.ED.1: Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers. NJSLS.8.2.12.ED.4: Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience. NJSLS.8.2.12.ED.5: Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics). NJSLS.8.2.12.ED.6: Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor). NJSLS.8.2.12.ETW.3: Identify a complex, global environmental or climate change issue, develop a systemic plan of investigation, and propose an innovative sustainable solution
Course/Unit Resources:
NewsELA Schoology materials Student driven researched materials APA Formatting, Citations, and Good Research Practices Kingsway Research Databases Hidden Figures Movie and/or book excerpts Hidden Figures Movie Guide Hidden Figures Class Discussion Guide Hidden Figures Links and further reading/discussion Minority STEM Contributor Project Rubric and Requirements

Unit 6: Service Learning	Unit Length: 5 weeks
Unit Description: During this unit, students will learn about service learning: the purpose, the meaning, and the understanding of how service learning not only creates better connections to the community, but also how service learning provides meaningful interactions between members of the community.	
To ensure the needs of all learners (including but not limited to, special education, 504, ELL, & advanced learners) are met when delivering instruction and assessing students, please refer to the district approved Instructional & Assessments Supports: Accommodations/Modification Reference Sheet. These must be used in the planning and delivery of instruction. Specific student learning activities, differentiated instructional techniques and accommodations/modifications are noted in Schoology.	

Learning Goals:	Learning Objectives:
1. Students will learn what service learning is and will then plan and execute a project which encompasses civic duty and STEM content knowledge. After the project, they will reflect upon the effectiveness and implementation of the project.	1. Students will recognize that they can have an impact in the world; whether this impact is positive or negative is a choice they make. 2. Students will learn project planning and communication skills throughout all units in the year.
Essential Questions:	**Enduring Understandings:**
Why is service learning important to students and society?	Students will understand that service learning is important to students and society because it enhances student learning by applying STEM concepts in a way that is beneficial to the local or global community.

Secondary Assessments (Formative)	Primary Assessments(Summative):
Service Learning Project Proposal Service Learning Project Logs	Final Service Learning Project and Presentation

Interdisciplinary Connections: Core Area Connections
ELA • Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words. • Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. • Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism. • Read and comprehend complex informational texts independently and proficiently. • Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

Interdisciplinary Connections: Core Area Connections
V&PA • Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience. • Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

Career Ready Practices: Note Career Ready Practices used
NJSLS.CLKS.1 Act as a responsible and contributing community member and employee. NJSLS.CLKS.3 Consider the environmental, social and economic impacts of decisions. NJSLS.CLKS.4 Demonstrate creativity and innovation. NJSLS.CLKS.5 Utilize critical thinking to make sense of problems and persevere in solving them. NJSLS.CLKS.6 Model integrity, ethical leadership and effective management.
Career Readiness, Life Literacies, & Key Skills (21st Century Themes and Skills): Note applicable 2020 NJ standards 9.1, 9.2, 9.3 or 9.4 within the unit
NJSLS.9.2.12.CAP.5 Assess and modify a personal plan to support current interests and postsecondary plans. NJSLS.9.2.12.CAP.6 Identify transferable skills in career choices and design alternative career plans based on those skills. NJSLS.9.1.12.CFR.1: Compare and contrast the role of philanthropy, volunteer service, and charities in community development and quality of life in a variety of cultures NJSLS.9.1.12.PB.2: Prioritize financial decisions by considering alternatives and possible consequences. NJSLS.9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas NJSLS.9.4.12.CI.2: Identify career pathways that highlight personal talents, skills, and abilities. NJSLS.9.4.12.CI.3: Investigate new challenges and opportunities for personal growth, advancement, and transition NJSLS.9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice. NSJSL.9.4.12.CT.2: Explain the potential benefits of collaborating to enhance critical thinking and problem solving. NJSLS.9.4.12.CT.3: Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue (e.g., environmental justice) NJSLS.9.4.12.IML.2: Evaluate digital sources for timeliness, accuracy, perspective, credibility of the source, and relevance of information, in media, data, or other resources (e.g., NJSLSA.W8, Social Studies Practice: Gathering and Evaluating Sources.) NJSLS.9.4.12.TL.4: Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem NJSLS.9.3.ST.4: Understand the nature and scope of the Science, Technology, Engineering, and Mathematics career cluster and role of STEM in society and the economy NJSLS.9.3.ST.5:Demonstrate an understanding of the breadth of career opportunities and means to those opportunities in each of the STEM pathways

Integration of Technology: Note applicable 2020 standards 8.1 & 8.2 used within the unit

NJSLS.8.2.12.ED.1: Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers.
NJSLS.8.2.12.ED.4: Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience.
NJSLS.8.2.12.ED.5: Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics).
NJSLS.8.2.12.ED.6: Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor).
NJSLS.8.2.12.ETW.3: Identify a complex, global environmental or climate change issue, develop a systemic plan of investigation, and propose an innovative sustainable solution

Course/Unit Resources:

NewsELA
Schoology materials
Student driven researched materials
APA Formatting, Citations, and Good Research Practices
Kingsway Research Databases
Introduction to SLP Presentation: Ms. Bruder and Ms. Palazzo
SLP Mission
SLP Hours Log
SLP DRAFT Proposal
SLP FINAL Proposal
SLP Research Log
Provided Classroom materials for building/construction of SLP (not all cases)
Collected materials for Building/construction of SLP (not all cases)