

**East Newark Public School**  
**Science Curriculum**  
**Grade 6**



# 6th Grade Science Curriculum

EAST NEWARK PUBLIC SCHOOL

## Course Description

The East Newark Public School sixth grade science program is designed to introduce and develop a foundation in science through four major units of study. Students will gain an understanding of many important areas of the Life, Earth and Physical Sciences, and will utilize and understand scientific processes.

## Course Resources

1. Next Generation Science Standards:
  - Physical Science: <http://www.nextgenscience.org/file/3886/download?token=DgiPGjif>
  - Life Science: <http://www.nextgenscience.org/file/3751/download?token=I9tt2Yaw>
  - Earth & Space Science: <http://www.nextgenscience.org/file/3221/download?token=SbGEGsSFG>
2. Engineering Design <http://www.nextgenscience.org/file/3196/download?token=N-IGFy6h>
3. Integrated iScience Course 1, McGraw Hill, Copyright 2012, ConnectEd online textbook resources
4. New Jersey Center for Teaching & Learning (NJCTL) <https://njctl.org/courses/science/>

## Pacing Guide

Unit	Unit Title	Topics Covered	Standards	Resources
1	Exploring Life	<ul style="list-style-type: none"><li>• Life's Classification and Structure</li><li>• Inheritance and Adaptations</li><li>• Introduction to Plants</li><li>• Introduction to Animals</li><li>• Interactions of Life</li></ul>	MS-LS1-1 MS-LS1-4 MS-LS1-5	iScience (Frog)
2	Understanding Matter	<ul style="list-style-type: none"><li>• Matter and Atoms</li><li>• Matter: Properties and Changes</li></ul>	MS-PS1-1 MS-PS1-2	iScience (Frog)
3	Understanding Energy	<ul style="list-style-type: none"><li>• Energy and Energy Transformations</li><li>• Waves, Light, and Sound</li><li>• Electricity and Magnetism</li></ul>	MS-PS3-1 MS-PS3-2	iScience (Frog)
4	Exploring Earth	<ul style="list-style-type: none"><li>• Our Planet--Earth</li><li>• Earth's Dynamic Surface</li><li>• Natural Resources</li></ul>	MS-ESS2-1 MS-ESS2-2 MS-ESS2-3	iScience (Frog)

## Unit 1: Exploring Life

<b>Timeframe</b>	September-November
<b>Overview</b>	Students demonstrate age appropriate abilities to plan and carry out investigations to develop evidence based on the exploration of life. Students will engage in lessons related to the classification and structure of life and the inheritance of traits and adaptations. Students will use plants and animals and their interactions as context to determine how life on earth adapts and changes based on the ecosystem in which it thrives.
<b>Resources</b>	<ul style="list-style-type: none"> <li>● iScience Online &amp; Digital Texts</li> <li>● iScience Materials</li> <li>● Chapter 6 - Lesson 1-2</li> <li>● Chapter 7 - Lesson 1-2</li> <li>● Chapter 8 - Lesson 1-3</li> <li>● Chapter 9 - Lesson 1-3</li> <li>● Chapter 10 - Lesson 1-3</li> </ul>
<b>Essential Questions</b>	<ol style="list-style-type: none"> <li>1. What are living things and what do they need?</li> <li>2. How do the parts of a cell work together to enable it to survive?</li> <li>3. How is the classification of living things related to the structure of their cells?</li> <li>4. How do inherited traits become adaptations?</li> <li>5. What structures help ensure the survival of plants, and what is the function of each?</li> <li>6. What are animals, and how are they classified?</li> <li>7. How do living things interact with each other and the environment?</li> </ol>
<b>Essential Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1. Learn the functions of the parts of a cell.</li> <li>2. Understand the differences between an abiotic and biotic ecosystems.</li> <li>3. Define and describe an ecosystem.</li> <li>4. Identify the characteristics of mammals and determine if they are common to all mammals.</li> <li>5. Learn how animal species are adapted to their environments</li> <li>6. Determine how a plants structure determines its survival.</li> <li>7. Describe how different plants are alike and different.</li> <li>8. Define what inheritance means as it relates to traits and how environmental factors influence traits.</li> <li>9. Learn about genetic mutations.</li> </ol>
<b>Technology Infusion</b>	<ul style="list-style-type: none"> <li>● 8.1.8.A.1 Demonstrate knowledge of a real world problem using digital tools. Select and use applications effectively and productively.</li> <li>● 8.1.8.A.2 Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications.</li> <li>● 8.1.8.A.3 Use and/or develop a simulation that solves or supports a real world problem or theory.</li> <li>● 8.1.8.A.4 Graph and calculate data within a spreadsheet and summarize the results</li> </ul>
<b>Standards</b>	<ul style="list-style-type: none"> <li>● <b>MS-LS1-1:</b> Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.</li> <li>● <b>MS-LS1-4:</b> Use arguments based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.</li> <li>● <b>MS-LS1-5:</b> Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.</li> </ul>
<b>Integrated Accommodations and</b>	<ul style="list-style-type: none"> <li>● <b>Special Education Students</b></li> </ul>

<p><b>Modifications</b></p>	<ul style="list-style-type: none"> <li>o Provide graphic organizers for additional support or encourage students to create digital multimedia to showcase knowledge.</li> <li>o Extended time for revisions or opportunity to identify and develop areas of personal interest</li> <li>● <b>English Language Learners</b> <ul style="list-style-type: none"> <li>o Invite students to explore different points of view on a topic of study and compare.</li> <li>o Device used for translation purposes</li> </ul> </li> <li>● <b>504 Students</b> <ul style="list-style-type: none"> <li>o Provide graphic organizers for additional support or encourage students to create digital multimedia to showcase knowledge.</li> <li>o Extended time for revisions or opportunity to identify and develop areas of personal interest</li> </ul> </li> <li>● <b>Gifted &amp; Talented Students</b> <ul style="list-style-type: none"> <li>o Encourage students to explore concepts in depth and encourage independent studies or investigations.</li> <li>o Independent student led research</li> </ul> </li> </ul>
<p><b>Assessments</b></p>	<ul style="list-style-type: none"> <li>● Simulation Tasks and Peer Review</li> <li>● Formal Assessments by way of tests and quizzes</li> <li>● Multimedia presentations</li> <li>● Writing prompts</li> <li>● Vocabulary quizzes</li> <li>● Formative assessments in the form of quizzes, class participation, discussion, topic blogging, and/or journaling</li> </ul>
<p><b>Integration of 21st Century Learning Skills</b></p>	<ul style="list-style-type: none"> <li>● 9.2.8.B.1 Research careers within the 16 Career Clusters and determine attributes of career success.</li> <li>● 9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.</li> <li>● 9.2.8.B.6 Demonstrate understanding of the necessary preparation and legal requirements to enter the workforce.</li> <li>● 9.2.8.B.7 Evaluate the impact of online activities and social media on employer decisions.</li> <li>● CRP1. Act as a responsible and contributing citizen and employee.</li> <li>● CRP2. Apply appropriate academic and technical skills.</li> <li>● CRP4. Communicate clearly and effectively and with reason.</li> <li>● CRP5. Consider the environmental, social and economic impacts of decisions.</li> <li>● CRP6. Demonstrate creativity and innovation.</li> <li>● CRP7: Employ valid and reliable research strategies.</li> <li>● CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</li> <li>● CRP9. Model integrity, ethical leadership and effective management.</li> <li>● CRP10. Plan education and career paths aligned to personal goals.</li> <li>● CRP11: Use technology to enhance productivity.</li> </ul>
<p><b>Career Education</b></p>	<p>The 12 Career Ready Practices: These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness. This unit addresses standard 9.2 (Career Awareness, Exploration, and Preparation) as it outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.</p>

**Interdisciplinary Connections**

- The science curriculum includes unifying themes such as systems, changes, and models. These themes combine with connected skills such as using measurement and representations. These themes and skills, along with the shared processes of observing and predicting, provide teachers with a myriad of opportunities for making meaningful cross-curricular connections.
- For example, investigations of local issues can engage students in thinking about science and social science concepts and help develop their understanding of probability and data analysis, which are part of the mathematics standards. Learning, understanding, and using scientific vocabulary allows students to connect their ideas to content specific words and phrases. Students must understand appropriate levels of scientific terminology to be able to achieve the lesson objectives. In addition, teachers may use journals, writing prompts, lab reports, and outlines to provide students with opportunities to write in the science classroom.

## Unit 2: Understanding Matter

<b>Timeframe</b>	September-November
<b>Overview</b>	Students will learn what occurs at the atomic and molecular scale. Students apply their understanding that pure substances have characteristic properties and are made from a single type of atom or molecule. They also provide a molecular level accounts to explain states of matter and changes between states. Students are expected to use the scientific and engineering practices to demonstrate an understanding of the core ideas.
<b>Resources</b>	<ul style="list-style-type: none"> <li>● iScience Online &amp; Digital Texts</li> <li>● iScience Materials</li> <li>● Chapter 11 - Lesson 1-2</li> <li>● Chapter 12 - Lesson 1-2</li> </ul>
<b>Essential Questions</b>	<ol style="list-style-type: none"> <li>1. How does the classification of matter depend on the atom?</li> <li>2. What gives a substance its unique identity?</li> </ol>
<b>Essential Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1. Describe the relationship among atoms, elements and compounds</li> <li>2. Differentiate between mixtures and compounds</li> <li>3. Understand how the atomic number of an element is related to the protons in an atom, and the effect of changing the number of particles in an atom has on its identity.</li> </ol>
<b>Technology Infusion</b>	<ul style="list-style-type: none"> <li>● 8.1.8.A.1 Demonstrate knowledge of a real world problem using digital tools. Select and use applications effectively and productively.</li> <li>● 8.1.8.A.2 Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications.</li> <li>● 8.1.8.A.3 Use and/or develop a simulation that solves or supports a real world problem or theory.</li> <li>● 8.1.8.A.4 Graph and calculate data within a spreadsheet and summarize the results</li> </ul>
<b>Standards</b>	<ul style="list-style-type: none"> <li>● <b>MS-PS1-1:</b> Develop models to describe the atomic composition of simple molecules and extended structures.</li> <li>● <b>MS-PS1-2:</b> Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.</li> </ul>
<b>Integrated Accommodations and Modifications</b>	<ul style="list-style-type: none"> <li>● <b>Special Education Students</b> <ul style="list-style-type: none"> <li>○ Provide graphic organizers for additional support or encourage students to create digital multimedia to showcase knowledge.</li> <li>○ Extended time for revisions or opportunity to identify and develop areas of personal interest</li> </ul> </li> <li>● <b>English Language Learners</b> <ul style="list-style-type: none"> <li>○ Invite students to explore different points of view on a topic of study and compare.</li> <li>○ Device used for translation purposes</li> </ul> </li> <li>● <b>504 Students</b> <ul style="list-style-type: none"> <li>○ Provide graphic organizers for additional support or encourage students to create digital multimedia to showcase knowledge.</li> <li>○ Extended time for revisions or opportunity to identify and develop areas of personal interest</li> </ul> </li> <li>● <b>Gifted &amp; Talented Students</b> <ul style="list-style-type: none"> <li>○ Encourage students to explore concepts in depth and encourage independent studies or investigations.</li> <li>○ Independent student led research</li> </ul> </li> </ul>
<b>Assessments</b>	<ul style="list-style-type: none"> <li>● Simulation Tasks and Peer Review</li> <li>● Formal Assessments by way of tests and quizzes</li> <li>● Multimedia presentations</li> </ul>

	<ul style="list-style-type: none"> <li>● Writing prompts</li> <li>● Vocabulary quizzes</li> <li>● Formative assessments in the form of quizzes, class participation, discussion, topic blogging, and/or journaling</li> </ul>
<b>Integration of 21st Century Learning Skills</b>	<ul style="list-style-type: none"> <li>● 9.2.8.B.1 Research careers within the 16 Career Clusters and determine attributes of career success.</li> <li>● 9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.</li> <li>● 9.2.8.B.6 Demonstrate understanding of the necessary preparation and legal requirements to enter the workforce.</li> <li>● 9.2.8.B.7 Evaluate the impact of online activities and social media on employer decisions.</li> <li>● CRP1. Act as a responsible and contributing citizen and employee.</li> <li>● CRP2. Apply appropriate academic and technical skills.</li> <li>● CRP4. Communicate clearly and effectively and with reason.</li> <li>● CRP5. Consider the environmental, social and economic impacts of decisions.</li> <li>● CRP6. Demonstrate creativity and innovation.</li> <li>● CRP7: Employ valid and reliable research strategies.</li> <li>● CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</li> <li>● CRP9. Model integrity, ethical leadership and effective management.</li> <li>● CRP10. Plan education and career paths aligned to personal goals.</li> <li>● CRP11: Use technology to enhance productivity.</li> </ul>
<b>Career Education</b>	<p>The 12 Career Ready Practices: These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness. This unit addresses standard 9.2 (Career Awareness, Exploration, and Preparation) as it outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.</p>
<b>Interdisciplinary Connections</b>	<ul style="list-style-type: none"> <li>● The science curriculum includes unifying themes such as systems, changes, and models. These themes combine with connected skills such as using measurement and representations. These themes and skills, along with the shared processes of observing and predicting, provide teachers with a myriad of opportunities for making meaningful cross-curricular connections.</li> <li>● For example, investigations of local issues can engage students in thinking about science and social science concepts and help develop their understanding of probability and data analysis, which are part of the mathematics standards. Learning, understanding, and using scientific vocabulary allows students to connect their ideas to content specific words and phrases. Students must understand appropriate levels of scientific terminology to be able to achieve the lesson objectives. In addition, teachers may use journals, writing prompts, lab reports, and outlines to provide students with opportunities to write in the science classroom.</li> </ul>



### Unit 3: Understanding Energy

<b>Timeframe</b>	February-April
<b>Overview</b>	Students will engage in lessons related to the transformation and properties related to energy and learn how energy creates work.
<b>Resources</b>	<ul style="list-style-type: none"> <li>● iScience Online &amp; Digital Texts</li> <li>● iScience Materials</li> <li>● Chapter 13 - Lesson 1-2</li> <li>● Chapter 14 - Lesson 1-3</li> <li>● Chapter 15 - Lesson 1-3</li> </ul>
<b>Essential Questions</b>	<ol style="list-style-type: none"> <li>1. What is energy and what are energy transformations?</li> <li>2. How do waves transfer energy through matter and through empty space?</li> <li>3. How are an electric current and a magnet related?</li> </ol>
<b>Essential Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1. Define energy and explain potential and kinetic energy.</li> <li>2. Differentiate between the different forms of energy.</li> <li>3. Learn how energy is related to work and the various forms of energy used to do work</li> <li>4. Define waves and explain how waves are produced.</li> <li>5. Learn about the properties of waves and describe the ways waves interact with matter.</li> <li>6. Explain how objects become electrically charged.</li> <li>7. Describe how electrically charged objects interact.</li> </ol>
<b>Technology Infusion</b>	<ul style="list-style-type: none"> <li>● 8.1.8.A.1 Demonstrate knowledge of a real world problem using digital tools. Select and use applications effectively and productively.</li> <li>● 8.1.8.A.2 Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications.</li> <li>● 8.1.8.A.3 Use and/or develop a simulation that solves or supports a real world problem or theory.</li> <li>● 8.1.8.A.4 Graph and calculate data within a spreadsheet and summarize the results</li> </ul>
<b>Standards</b>	<ul style="list-style-type: none"> <li>● <b>MS-PS3-1:</b> Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.</li> <li>● <b>MS-PS3-2:</b> Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.</li> </ul>
<b>Integrated Accommodations and Modifications</b>	<ul style="list-style-type: none"> <li>● <b>Special Education Students</b> <ul style="list-style-type: none"> <li>○ Provide graphic organizers for additional support or encourage students to create digital multimedia to showcase knowledge.</li> <li>○ Extended time for revisions or opportunity to identify and develop areas of personal interest</li> </ul> </li> <li>● <b>English Language Learners</b> <ul style="list-style-type: none"> <li>○ Invite students to explore different points of view on a topic of study and compare.</li> <li>○ Device used for translation purposes</li> </ul> </li> <li>● <b>504 Students</b> <ul style="list-style-type: none"> <li>○ Provide graphic organizers for additional support or encourage students to create digital multimedia to showcase knowledge.</li> <li>○ Extended time for revisions or opportunity to identify and develop areas of personal interest</li> </ul> </li> <li>● <b>Gifted &amp; Talented Students</b> <ul style="list-style-type: none"> <li>○ Encourage students to explore concepts in depth and encourage independent studies or investigations.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>o Independent student led research</li> </ul>
<b>Assessments</b>	<ul style="list-style-type: none"> <li>● Simulation Tasks and Peer Review</li> <li>● Formal Assessments by way of tests and quizzes</li> <li>● Multimedia presentations</li> <li>● Writing prompts</li> <li>● Vocabulary quizzes</li> <li>● Formative assessments in the form of quizzes, class participation, discussion, topic blogging, and/or journaling</li> </ul>
<b>Integration of 21st Century Learning Skills</b>	<ul style="list-style-type: none"> <li>● 9.2.8.B.1 Research careers within the 16 Career Clusters and determine attributes of career success.</li> <li>● 9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.</li> <li>● 9.2.8.B.6 Demonstrate understanding of the necessary preparation and legal requirements to enter the workforce.</li> <li>● 9.2.8.B.7 Evaluate the impact of online activities and social media on employer decisions.</li> <li>● CRP1. Act as a responsible and contributing citizen and employee.</li> <li>● CRP2. Apply appropriate academic and technical skills.</li> <li>● CRP4. Communicate clearly and effectively and with reason.</li> <li>● CRP5. Consider the environmental, social and economic impacts of decisions.</li> <li>● CRP6. Demonstrate creativity and innovation.</li> <li>● CRP7: Employ valid and reliable research strategies.</li> <li>● CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</li> <li>● CRP9. Model integrity, ethical leadership and effective management.</li> <li>● CRP10. Plan education and career paths aligned to personal goals.</li> <li>● CRP11: Use technology to enhance productivity.</li> </ul>
<b>Career Education</b>	<p>The 12 Career Ready Practices: These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness. This unit addresses standard 9.2 (Career Awareness, Exploration, and Preparation) as it outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.</p>
<b>Interdisciplinary Connections</b>	<ul style="list-style-type: none"> <li>● The science curriculum includes unifying themes such as systems, changes, and models. These themes combine with connected skills such as using measurement and representations. These themes and skills, along with the shared processes of observing and predicting, provide teachers with a myriad of opportunities for making meaningful cross-curricular connections.</li> <li>● For example, investigations of local issues can engage students in thinking about science and social science concepts and help develop their understanding of probability and data analysis, which are part of the mathematics standards. Learning, understanding, and using scientific vocabulary allows students to connect their ideas to content specific words and phrases. Students must understand appropriate levels of scientific terminology to be able to achieve the lesson objectives. In addition, teachers may use journals, writing prompts, lab reports, and outlines to provide students with opportunities to write in the science classroom.</li> </ul>

## Unit 4: Exploring Earth

<b>Timeframe</b>	February-April
<b>Overview</b>	Students examine geoscience data in order to understand processes and events in Earth's history. Important crosscutting concepts in this unit are scale, proportion, and quantity, stability and change, and patterns in relation to the different ways geologic processes operate over geologic time. An important aspect of the history of Earth is that geologic events and conditions have affected the evolution of life, but different life forms have also played important roles in altering Earth's systems. Students understand how Earth's geosystems operate by modeling the flow of energy and the cycling of matter within and among different systems.
<b>Resources</b>	<ul style="list-style-type: none"> <li>● iScience Online &amp; Digital Texts</li> <li>● iScience Materials</li> <li>● Chapter 3 - Lesson 1-2</li> <li>● Chapter 4 - Lesson 1-3</li> <li>● Chapter 5 - Lessons 1-4</li> </ul>
<b>Essential Questions</b>	<ol style="list-style-type: none"> <li>1. How can you describe Earth?</li> <li>2. What processes change Earth's surface?</li> <li>3. Why is it important to manage natural resources wisely?</li> </ol>
<b>Essential Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1. Describe the structure and composition of the atmosphere and the geosphere.</li> <li>2. Name and describe Earth's systems.</li> <li>3. Describe the theory of plate tectonics and explain why they move on Earth's surface.</li> <li>4. Differentiate between the three types of plate boundaries.</li> <li>5. Learn the main sources of nonrenewable energy.</li> <li>6. Understand how individuals can help manage nonrenewable resources.</li> </ol>
<b>Technology Infusion</b>	<ul style="list-style-type: none"> <li>● 8.1.8.A.1 Demonstrate knowledge of a real world problem using digital tools. Select and use applications effectively and productively.</li> <li>● 8.1.8.A.2 Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications.</li> <li>● 8.1.8.A.3 Use and/or develop a simulation that solves or supports a real world problem or theory.</li> <li>● 8.1.8.A.4 Graph and calculate data within a spreadsheet and summarize the results</li> </ul>
<b>Standards</b>	<ul style="list-style-type: none"> <li>● <b>MS-ESS2-1:</b> Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.</li> <li>● <b>MS-ESS2-2:</b> Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.</li> <li>● <b>MS-ESS2-3:</b> Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.</li> </ul>
<b>Integrated Accommodations and Modifications</b>	<ul style="list-style-type: none"> <li>● <b>Special Education Students</b> <ul style="list-style-type: none"> <li>○ Provide graphic organizers for additional support or encourage students to create digital multimedia to showcase knowledge.</li> <li>○ Extended time for revisions or opportunity to identify and develop areas of personal interest</li> </ul> </li> <li>● <b>English Language Learners</b> <ul style="list-style-type: none"> <li>○ Invite students to explore different points of view on a topic of study and compare.</li> <li>○ Device used for translation purposes</li> </ul> </li> <li>● <b>504 Students</b></li> </ul>

	<ul style="list-style-type: none"> <li>o Provide graphic organizers for additional support or encourage students to create digital multimedia to showcase knowledge.</li> <li>o Extended time for revisions or opportunity to identify and develop areas of personal interest</li> <li>● <b>Gifted &amp; Talented Students</b> <ul style="list-style-type: none"> <li>o Encourage students to explore concepts in depth and encourage independent studies or investigations.</li> <li>o Independent student led research</li> </ul> </li> </ul>
<b>Assessments</b>	<ul style="list-style-type: none"> <li>● Simulation Tasks and Peer Review</li> <li>● Formal Assessments by way of tests and quizzes</li> <li>● Multimedia presentations</li> <li>● Writing prompts</li> <li>● Vocabulary quizzes</li> <li>● Formative assessments in the form of quizzes, class participation, discussion, topic blogging, and/or journaling</li> </ul>
<b>Integration of 21st Century Learning Skills</b>	<ul style="list-style-type: none"> <li>● 9.2.8.B.1 Research careers within the 16 Career Clusters and determine attributes of career success.</li> <li>● 9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.</li> <li>● 9.2.8.B.6 Demonstrate understanding of the necessary preparation and legal requirements to enter the workforce.</li> <li>● 9.2.8.B.7 Evaluate the impact of online activities and social media on employer decisions.</li> <li>● CRP1. Act as a responsible and contributing citizen and employee.</li> <li>● CRP2. Apply appropriate academic and technical skills.</li> <li>● CRP4. Communicate clearly and effectively and with reason.</li> <li>● CRP5. Consider the environmental, social and economic impacts of decisions.</li> <li>● CRP6. Demonstrate creativity and innovation.</li> <li>● CRP7: Employ valid and reliable research strategies.</li> <li>● CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</li> <li>● CRP9. Model integrity, ethical leadership and effective management.</li> <li>● CRP10. Plan education and career paths aligned to personal goals.</li> <li>● CRP11: Use technology to enhance productivity.</li> </ul>
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<b>Interdisciplinary Connections</b>	<ul style="list-style-type: none"> <li>● The science curriculum includes unifying themes such as systems, changes, and models. These themes combine with connected skills such as using measurement and representations. These themes and skills, along with the shared processes of observing and predicting, provide teachers with a myriad of opportunities for making meaningful cross-curricular connections.</li> <li>● For example, investigations of local issues can engage students in thinking about science and social science concepts and help develop their understanding of probability and data analysis, which are part of the mathematics standards. Learning, understanding, and using scientific vocabulary allows students to connect their ideas to content specific words and phrases. Students must understand appropriate levels of</li> </ul>

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