

GREEN TOWNSHIP SCHOOL DISTRICT



Content Area: Science
Course/Grade Level: 5th Grade

Curriculum Committee Members:

Principal:
Jon Paul Bollette

Board Approval Date:
10/21/26



5th Grade

Mission:

All students will develop an understanding of scientific concepts and processes essential for informed decision-making, meaningful participation in civic life, and readiness for postsecondary opportunities, including careers in STEM fields.

Vision:

Prepare students to become scientifically literate individuals who can effectively:

- Apply scientific thinking, skills, and understanding to real-world phenomena and problems;
- Engage in systems thinking and modeling to explain phenomena and to give a context for the ideas to be learned;
- Conduct investigations, solve problems, and engage in discussions;
- Discuss open-ended questions that focus on the strength of the evidence used to generate claims;
- Read and evaluate multiple sources, including science-related magazine and journal articles and web-based resources to gain knowledge about current and past science problems and solutions and develop well-reasoned claims; and
- Communicate ideas through journal articles, reports, posters, and media presentations that explain and argue.



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Key Performance and Benchmark Tasks/Assessments

Formative assessments:

- Used to gauge student understanding and progress throughout the unit.
- Not necessarily graded
- Provide feedback for students to use to reflect, revise and refine their work.

Summative Assessments:

- Final projects or assessments to determine what students have learned over the course of the project or unit.

Benchmark Assessments:

- Teacher-created benchmark assessments to be given periodically during the year.

Alternative Assessments:

- Teacher modifies assignments and activities based on student needs.
- Oral assessments administered in place of written when necessary.
- Accommodation and modification ideas may be found here:
 - [Modifications & Accommodations Menu](#)
 - *Assessments other than paper & pencil tests See link for more info:*
http://education.qmu.edu/assets/docs/forms/mirs/assessment_brochure.pdf

Integrated Accommodations & Modifications

Please utilize the link below for ideas and strategies to use with ***ELL, Students with IEPs & 504s, At-Risk Students and Gifted & Talented Students.***

The attached worksheets can be printed ahead of each unit during the planning phase to help the teacher plan for the needs of particular students in each class, allowing for differentiation per unit and per year. The worksheets contain suggested accommodations and modifications for Content & Material, Student



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Organization, Instructional Strategies, Assessments, Attention/Focus, Written Language, and Social/Behavioral.

[Modifications & Accommodations Menu](#)



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Unit 1

Matter and Its Interactions- Physical Properties and Measurement	Pacing: approx. 4 weeks
Unit Summary: In this unit, students investigate the physical properties of matter by measuring mass, volume, density, and temperature using scientific tools. They develop an understanding of the particle model of matter, explore the relationship between physical changes and conservation of mass, and use data collection and graphing to analyze and explain their observations.	
Essential Questions: • How do scientists measure and describe the properties of matter? • How does the movement of particles explain the different states of matter? • What evidence shows that matter is conserved during physical changes?	Enduring Understandings: • Matter has measurable physical properties, such as mass, volume, density, and temperature, that can be observed, measured, and compared. • The arrangement and motion of particles determine the state and properties of matter. • Matter can undergo physical changes while conserving mass, even when its appearance or state changes.

New Jersey Student Learning Standards	Student Learning Objectives	Practices
• 5-PS1-1. Develop a model to describe that matter is made of particles too small to be seen. • 5-PS1-2. Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. • 5-PS1-3. Make observations and measurements to identify materials based on their properties.	• measure the mass and volume of materials using appropriate science instruments • calculate the density of various materials. • describe the action of particles for the different states of matter. • measure and graph the temperature and mass of material to demonstrate the conservation of mass. • describe matter in terms of its physical properties.	• Planning and Carrying Out Investigations • Using Mathematics and Computational Thinking • Analyzing and Interpreting Data • Developing and Using Models • Constructing Explanations



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- MS-PS1-4. Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.
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- and Designing Solutions
- Obtaining, Evaluating, and Communicating Information
- Engaging in Argument from Evidence

Interdisciplinary Connections

2020 Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CT.1 – Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.2 – Identify a problem and list the types of individuals and resources that can aid in solving the problem.
- 9.4.5.CT.3 – Describe how digital tools and technology can be used to solve problems and improve processes.
- 9.4.5.IML.1 – Evaluate digital sources for accuracy, perspective, credibility, and relevance.
- 9.4.5.IML.6 – Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.TL.1 – Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
- 9.4.5.TL.3 – Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols.
- 9.4.5.TL.6 – Adapt and use digital tools to design and develop a product.
- 9.4.5.TL.7 – Collaborate digitally to produce an artifact.

Unit 1: Core Unit Content

Key Concepts

- ☐ pan-balance scale
- ☐ volume measurement using linear measure and displacement
- ☐ thermometer
- ☐ rounding strategies to the nearest 0.1
- ☐ formulas



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Instructional Materials & Resources

- *Glencoe iScience- Physical Science Series*
(Mcgraw-Hill Companies, Inc. 2012)
- Discovery Education videos
- Glencoe ConnectEd online resources

Unit 1: Assessments

Formative assessments:

- Class discussions in which student share prior knowledge
- Quizzes

Summative Assessments:

- Teacher-created quizzes
- Teacher-created unit assessments
- Labs

Alternative Assessments:

Unit 1: Accommodations & Modifications

Please utilize the link below for ideas and strategies to use with ELL, Students with IEPs & 504s, At-Risk Students and Gifted & Talented Students. Note possible accommodations or modifications for this unit below.

[Modifications & Accommodations Menu](#)



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Unit 2

Matter and its Interactions: Classification of Matter- Atoms, Compounds, and Mixtures

Pacing: 5 weeks

Unit Summary: In this unit, students explore the structure of atoms by identifying subatomic particles and using the periodic table to describe elements. They classify matter as elements, compounds, or mixtures and investigate the differences between physical and chemical changes by analyzing observable evidence and changes in the properties of matter.

Essential Questions:

- How does the structure of an atom determine the identity of an element?
- How can matter be classified based on what it is made of?
- How can we tell the difference between a physical change and a chemical change?

Enduring Understandings:

- All matter is made of atoms, and the structure of atoms determines the identity and properties of elements.
- Matter can be classified as elements, compounds, or mixtures based on its composition.
- Matter undergoes physical and chemical changes that can be distinguished by observing changes in properties and the formation of new substances.

New Jersey Student Learning Standards	Student Learning Objectives	Practices
5-PS1-1. Develop a model to describe that matter is made of particles too small to be seen. 5-PS1-2. Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. 5-PS1-3. Make observations and measurements to identify materials based on their properties. 5-PS1-4. Conduct an investigation to determine whether the	• identify/distinguish the different parts of an atom. • use the periodic table of elements to describe atomic structure of an element's atoms. • distinguish/identify materials as elements, compounds, or mixtures. • distinguish between a chemical and physical change.	• Developing and Using Models • Obtaining, Evaluating, and Communicating Information • Analyzing and Interpreting Data • Planning and Carrying Out Investigations • Constructing Explanations and Designing Solutions • Using Mathematics and Computational Thinking



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mixing of two or more substances results in new substances

- Engaging in Argument from Evidence

Interdisciplinary Connections

2020 Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CT.1 – Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.2 – Identify a problem and list the types of individuals and resources that can aid in solving the problem.
- 9.4.5.IML.1 – Evaluate digital sources for accuracy, perspective, credibility, and relevance.
- 9.4.5.IML.6 – Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.TL.1 – Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
- 9.4.5.TL.6 – Adapt and use digital tools to design and develop a product.

Instructional Materials & Resources

- *Glencoe iScience- Physical Science Series*
(Mcgraw-Hill Companies, Inc. 2012)
- Discovery Education videos
- Glencoe ConnectEd online resources

Unit 2: Assessments

Formative assessments:

- Class discussions in which student share prior knowledge
- Quizzes



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Summative Assessments:

- Teacher-created quizzes
- Teacher-created unit assessments
- Labs

Alternative Assessments:

Unit 2: Accommodations & Modifications

Please utilize the link below for ideas and strategies to use with ELL, Students with IEPs & 504s, At-Risk Students and Gifted & Talented Students. Note possible accommodations or modifications for this unit below.

[Modifications & Accommodations Menu](#)



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Unit 3

Space- Exploring Space	Pacing: 5 weeks
Unit Summary: In this unit, students investigate the properties of light and the electromagnetic spectrum, including reflection, refraction, and the interactions of electromagnetic waves with different materials. They explore the effects of gravity on Earth and in space, learn how telescopes and satellites support scientific discovery, examine the history of human space exploration, and apply the engineering design process to design a satellite that meets specific performance criteria and constraints.	
Essential Questions: • How do light and electromagnetic waves help us understand and explore the universe? • How does gravity affect objects on Earth and in space? • How do scientists and engineers use technology to expand human exploration of space?	Enduring Understandings: • Light and electromagnetic waves interact with matter in predictable ways, allowing us to observe, communicate, and explore the universe. • Gravity influences the motion of objects on Earth and throughout space, shaping the structure and behavior of the solar system and beyond. • Scientific knowledge and engineering design work together to advance space exploration and solve challenges related to exploring the universe.

New Jersey Student Learning Standards	Student Learning Objectives	Practices
5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down. MS-PS4-2. Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	• explain how a telescope works. • distinguish between reflection and refraction • identify and describe the effect of gravity on an object on Earth and in Space. • classify and describe the various waves of the electromagnetic (EM) spectrum. • describe the effect of EM waves on various materials.	• Developing and Using Models • Obtaining, Evaluating, and Communicating Information • Constructing Explanations and Designing Solutions • Planning and Carrying Out Investigations



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3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

- explain how an understanding of EM waves helps humans learn about and explore space.
- design a satellite to meet pre-determined performance requirements given material, cost, time, and energy constraints.
- trace the history of human space exploration.

- Analyzing and Interpreting Data
- Engaging in Argument from Evidence
- Using Mathematics and Computational Thinking

Interdisciplinary Connections

2020 Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CI.3 – Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- 9.4.5.CI.4 – Research and explore the impact of a design solution on the environment and society.
- 9.4.5.CT.1 – Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.2 – Identify a problem and list the types of individuals and resources that can aid in solving the problem.
- 9.4.5.CT.3 – Describe how digital tools can be used to solve problems and improve processes.
- 9.4.5.IML.1 – Evaluate digital sources for accuracy, perspective, credibility and relevance.
- 9.4.5.IML.6 – Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.TL.1 – Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
- 9.4.5.TL.4 – Compare and contrast how technologies have changed over time.
- 9.4.5.TL.5 – Collaborate digitally to produce an artifact.

Instructional Materials & Resources

- *Glencoe iScience- Physical Science Series*
(Mcgraw-Hill Companies, Inc. 2012)
- Discovery Education videos
- Glencoe ConnectEd online resources



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Unit 3: Assessments

Formative assessments:

- Class discussions in which student share prior knowledge
- Quizzes

Summative Assessments:

- Teacher-created quizzes
- Teacher-created unit assessments
- Labs

Alternative Assessments:

Unit 3: Accommodations & Modifications

Please utilize the link below for ideas and strategies to use with ELL, Students with IEPs & 504s, At-Risk Students and Gifted & Talented Students. Note possible accommodations or modifications for this unit below.

[Modifications & Accommodations Menu](#)

Unit 4

Space- Sun, Earth, Moon System

Pacing:4 weeks

Unit Summary: In this unit, students investigate the dynamic relationships among the Earth, Moon, and Sun. They explore Earth's rotation and revolution, the causes of seasons, moon phases, eclipses, tides, and changing shadows, while examining the role of gravity in celestial motion. Through models and observations, students use patterns to explain and predict phenomena within the Earth–Moon–Sun system.



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Essential Questions:

- How do the movements of the Earth, Moon, and Sun affect life on Earth?
- What role does gravity play in the motion of objects in our solar system?
- How can patterns in Earth's position and movement be used to explain and predict natural phenomena?

Enduring Understandings:

- The motions of the Earth, Moon, and Sun create predictable patterns that explain seasons, day and night, moon phases, eclipses, and tides.
- Gravity is the force that governs the motion of celestial bodies and influences phenomena on Earth and in space.
- Observing patterns in the Earth–Moon–Sun system allows scientists to explain and predict natural events.

New Jersey Student Learning Standards	Student Learning Objectives	Practices
MS-ESS1-1. Develop and use a model of the Earth-Sun-Moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons. MS-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system. MS-ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system. 5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down 5-ESS1-2. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	• demonstrate the cyclical motion of the earth's revolution and rotation around the sun. • identify the relationship between the earth's tilt and the seasons. • distinguish between solar and lunar eclipses. • explain causes of the tides. • identify and describe the moon phases. • describe the role of gravity in celestial movement. • explain how seasonal changes affect the sun's angle and shadows.	• Developing and Using Models • Obtaining, Evaluating, and Communicating Information • Analyzing and Interpreting Data • Planning and Carrying Out Investigations • Using Mathematics and Computational Thinking • Constructing Explanations and Designing Solutions • Engaging in Argument from Evidence

Interdisciplinary Connections

[2020 Career Readiness, Life Literacies, and Key Skills](#)



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- 9.4.5.CI.3 – Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- 9.4.5.CT.1 – Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.2 – Identify a problem and list the types of individuals and resources that can aid in solving the problem.
- 9.4.5.IML.1 – Evaluate digital sources for accuracy, perspective, credibility and relevance.
- 9.4.5.IML.6 – Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.TL.1 – Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
- 9.4.5.TL.3 – Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols.
- 9.4.5.TL.5 – Collaborate digitally to produce an artifact.

Instructional Materials & Resources

- *Glencoe iScience- Physical Science Series*
(Mcgraw-Hill Companies, Inc. 2012)
- Discovery Education videos
- Glencoe ConnectEd online resources

Unit 4: Assessments

Formative assessments:

- Class discussions in which student share prior knowledge
- Quizzes

Summative Assessments:

- Teacher-created quizzes
- Teacher-created unit assessments
- Labs



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Alternative Assessments:

Unit 4: Accommodations & Modifications

Please utilize the link below for ideas and strategies to use with ELL, Students with IEPs & 504s, At-Risk Students and Gifted & Talented Students. Note possible accommodations or modifications for this unit below.

[Modifications & Accommodations Menu](#)

Unit 5

Space- Solar System

Pacing:4 weeks

Unit Summary: In this unit, students explore the structure and organization of the solar system by investigating the characteristics of the planets and other solar-orbiting objects. They examine how gravity influences planetary motion, compare the size and distances of planets relative to the Sun, distinguish between terrestrial and gas giant planets, and evaluate scientific theories about the formation of the solar system and the universe using evidence and models.

Essential Questions:

- How does gravity shape the motion and structure of our solar system?
- How are the planets and other objects in the solar system alike and different?
- How do scientists use evidence to explain the origins of the solar system and the universe?

Enduring Understandings:

- Gravity governs the motion of planets and other celestial objects, creating predictable patterns within the solar system.
- The planets and other objects in our solar system have unique characteristics that reflect their composition, size, location, and formation.
- Scientific theories about the origin of the solar system and the universe are based on evidence that continues to grow as technology advances.

New Jersey Student Learning Standards

Student Learning Objectives

Practices



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MS-ESS1-1. Develop and use a model of the Earth-Sun-Moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

MS-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.

MS-ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system.

- Describe how gravity affects the motion of planets and other celestial objects in the solar system.
- distinguish among planets based on their characteristics.
- compare and contrast the scale of size and distance of each planet relative to the sun.
- explain the differences between the inner rocky planets and the outer gas giants.
- discuss various theories pertaining to the origin of the solar system and universe.
- identify and describe other solar-orbiting objects.

- Developing and Using Models
- Obtaining, Evaluating, and Communicating Information
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Constructing Explanations and Designing Solutions
- Engaging in Argument from Evidence
- Planning and Carrying Out Investigations

Interdisciplinary Connections

2020 Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CT.1 – Identify and gather relevant data that can be used to solve a problem.
9.4.5.IML.3 – Create a digital artifact to support the delivery of information on a topic.
9.4.5.TL.4 – Compare and contrast how technologies have changed over time.
9.4.5.TL.6 – Adapt and use digital tools to design and develop a product.
9.4.5.TL.7 – Collaborate with others to complete a digital project or artifact.

Instructional Materials & Resources

- *Glencoe iScience- Physical Science Series*
(Mcgraw-Hill Companies, Inc. 2012)



5th Grade

- Discovery Education videos
- Glencoe ConnectEd online resources

Unit 5: Assessments

Formative assessments:

- Class discussions in which student share prior knowledge
- Quizzes

Summative Assessments:

- Teacher-created quizzes
- Teacher-created unit assessments
- Labs

Alternative Assessments:

Unit 5: Accommodations & Modifications

Please utilize the link below for ideas and strategies to use with ELL, Students with IEPs & 504s, At-Risk Students and Gifted & Talented Students. Note possible accommodations or modifications for this unit below.

[Modifications & Accommodations Menu](#)

Unit 6



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Space- Stars and Galaxies

Pacing: 3 weeks

Unit Summary: In this unit, students investigate the vast scale of the universe by comparing distances using astronomical units and light-years. They explore how luminosity, apparent magnitude, temperature, color, and mass are used to classify stars with the Hertzsprung–Russell diagram, examine the life cycle of stars, locate our solar system within the Milky Way galaxy, and compare the characteristics of different types of galaxies to better understand the organization of the universe.

Essential Questions:

- How do scientists measure, observe, and classify objects in the universe?
- What can the characteristics of a star tell us about its life cycle?
- How is our solar system connected to the larger structure of the universe?

Enduring Understandings:

- The universe is vast, and scientists use standard units of measurement and observations of light to study objects that are incredibly far away.
- Stars have identifiable characteristics and predictable life cycles that can be explained using scientific models and evidence.
- The solar system is part of the Milky Way galaxy, which is one of billions of galaxies with unique structures and characteristics.

New Jersey Student Learning Standards	Student Learning Objectives	Practices
MS-ESS1-1. Develop and use a model of the Earth-Sun-Moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons. MS-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system MS-PS4-1. Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave. 5-ESS1-1 Support an argument that differences in the apparent brightness of the sun compared to other stars due to their relative distances from Earth.	• compare distances within the universe in terms using Au's and light-years. • describe the relationship between luminosity, distance, and apparent magnitude of stars. • classify stars based on their temperature, color, and mass using the Hertzsprung-Russell diagram. • explain the life cycle of a star. • locate the position of our solar system within the Milky Way galaxy. • classify the different types of galaxies.	• Developing and Using Models • Obtaining, Evaluating, and Communicating Information • Analyzing and Interpreting Data • Using Mathematics and Computational Thinking • Constructing Explanations and Designing Solutions • Engaging in Argument from Evidence • Planning and Carrying Out



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Investigations

Interdisciplinary Connections

2020 Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CT.1 – Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.IML.1 – Evaluate digital sources for accuracy, perspective, credibility, and relevance.
- 9.4.5.IML.6 – Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.TL.5 – Collaborate digitally to produce an artifact.
- 9.4.5.TL.6 – Adapt and use digital tools to design and develop a product.

Instructional Materials & Resources

- *Glencoe iScience- Physical Science Series*
(Mcgraw-Hill Companies, Inc. 2012)
- Discovery Education videos
- Glencoe ConnectEd online resources

Unit 6: Assessments

Formative assessments:

- Class discussions in which student share prior knowledge
- Quizzes

Summative Assessments:

- Teacher-created quizzes
- Teacher-created unit assessments



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- Labs

Alternative Assessments:

Unit 6: Accommodations & Modifications

Please utilize the link below for ideas and strategies to use with ELL, Students with IEPs & 504s, At-Risk Students and Gifted & Talented Students. Note possible accommodations or modifications for this unit below.

[Modifications & Accommodations Menu](#)

Unit 7

Earth's Water

Pacing: 5 weeks

Unit Summary: In this unit, students investigate the unique properties of water and its importance to living organisms and Earth's systems. They explore the water cycle, greenhouse effect, global water distribution, water quality, and sources of water pollution while examining how water's physical properties—including cohesion, adhesion, and changes in density—support life and shape Earth's environment.

Essential Questions:

- Why is water essential to life and Earth's systems?
- How do the unique properties of water influence the environment?
- How do natural processes and human activities affect the quality and availability of Earth's water?

Enduring Understandings:

- Water is essential for life and plays a critical role in Earth's systems by regulating temperature, cycling through the environment, and supporting living organisms.
- The unique physical and chemical properties of water influence natural processes, ecosystems, and the distribution of life on Earth.
- Human activities affect water quality, making the responsible use and protection of water resources essential for healthy ecosystems and communities.



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New Jersey Student Learning Standards	Student Learning Objectives	Practices
5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact 5-ESS2-2. Describe and graph the amounts of saltwater and freshwater in various reservoirs to provide evidence about the distribution of water on Earth. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	- describe the importance of water for biological functions. - explain the role of water in maintaining the Earth's temperature. - describe the greenhouse effect. - demonstrate an understanding of the proportional distribution of salt and freshwater on Earth. - diagram the steps of the water cycle and explain its importance. - distinguish between the cohesion and adhesion of water molecules. - identify and discuss the unique characteristic of water's density in its different states. - describe and measure the variables used to identify water quality. - Distinguish between point and nonpoint-source pollution.	- Developing and Using Models - Planning and Carrying Out Investigations - Analyzing and Interpreting Data - Obtaining, Evaluating, and Communicating Information - Constructing Explanations and Designing Solutions - Using Mathematics and Computational Thinking - Engaging in Argument from Evidence

Interdisciplinary Connections

2020 Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CT.1 – Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.2 – Identify a problem and list the types of individuals and resources that can aid in solving the problem.
- 9.4.5.IML.1 – Evaluate digital sources for accuracy, perspective, credibility, and relevance.
- 9.4.5.IML.6 – Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.TL.6 – Adapt and use digital tools to design and develop a product.

Instructional Materials & Resources



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- *Glencoe iScience- Physical Science Series*
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- Discovery Education videos
- Glencoe ConnectEd online resources

Unit 7: Assessments

Formative assessments:

- Class discussions in which student share prior knowledge
- Quizzes

Summative Assessments:

- Teacher-created quizzes
- Teacher-created unit assessments
- Labs

Alternative Assessments:

Unit 7: Accommodations & Modifications

Please utilize the link below for ideas and strategies to use with ELL, Students with IEPs & 504s, At-Risk Students and Gifted & Talented Students. Note possible accommodations or modifications for this unit below.

[Modifications & Accommodations Menu](#)