

Bedminster Township School District
Subject Area: Life Science NJSL-S
Grade Level: MS Grade 6

Revised

Unit:
Earth's Water and Atmosphere (Weather & Climate)

PACING: September - end of December

OVERVIEW: After completing this unit, students should be able to understand how the water on Earth is not only essential for life, but that it cycles from the vast oceans to the atmosphere, falls to the surface as fresh water, and eventually returns to the ocean or the atmosphere. The methods and processes in which this happen are simple; however the many variables of atmospheric conditions cause different surface conditions (including extreme events). The atmosphere can be calm but can also be volatile or even deadly for both plant and animal life.

BIG IDEAS:

Unit 1: Water moves through Earth's atmosphere, oceans, and land in a cycle and is essential for life on Earth.

Unit 2: The oceans are a connected system of water in motion that transports matter and energy around Earth's surface.

Unit 3: Earth's atmosphere is a mixture of gases that interacts with solar energy.

Unit 4: Air pressure, temperature, air movement, and humidity in the atmosphere affect both weather and climate. (Includes Global Climate Change)

ESSENTIAL QUESTIONS:

Unit 1:

- 1. What makes water so important?*
- 2. How does water change state and move around Earth?*
- 3. How does fresh water flow on Earth?*

Unit 2:

- 1. What lies beneath an ocean's surface?*
- 2. How does an ocean wave form and move?*
- 3. How does water move in an ocean?*

Unit 3:

- 1. What is the atmosphere?*
- 2. How does energy move through the ecosystem?*
- 3. What is wind?*

Unit 4:

1. *What is weather and how can we describe different types of weather conditions?*
2. *How do clouds form, and how are clouds classified?*
3. *How do the water cycle and other global patterns affect local weather?*
4. *How can humans protect themselves from hazardous weather?*
5. *What tools do we use to predict the weather?*
6. *How is climate affected by energy from the sun and variations on Earth's surface?*
7. *What are the causes and effects of climate change?*

SEL Goals for this unit:

- **Goal 1: Become comfortable and confident with your classmates and teacher**
- **Goal 2: Feel confident in your abilities to solve problems and collect data in any setting; especially the classroom**

LGBTQ Awareness Infusion:

- **Discuss scientific research as non-discriminate toward anyone's gender, sexual preference, etc. Always let the data tell the story- all viewpoints are accepted!**

TARGET STANDARDS: (NGSS / NJSLS-S)

STANDARD	NGSS / NJSLS-S	Student Learning Objectives
MS-ESS2-5.	Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.	Emphasis is on how air masses flow from regions of high pressure to low pressure, causing weather (defined by temperature, pressure, humidity, precipitation, and wind) at a fixed location to change over time, and how sudden changes in weather can result when different air masses collide. Emphasis is on how weather can be predicted within probabilistic ranges. Examples of data can be provided to students (such as weather maps, diagrams, and visualizations) or obtained through laboratory experiments (such as with condensation). Assessment does not include recalling the names of cloud types or weather symbols used on weather maps or the reported diagrams from weather stations.]
MS-ESS2-6.	Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and	Emphasis is on how patterns vary by latitude, altitude, and geographic land distribution. Emphasis of atmospheric circulation is on the sunlight-driven

	oceanic circulation that determine regional climates.	latitudinal banding, the Coriolis effect, and resulting prevailing winds; emphasis of ocean circulation is on the transfer of heat by the global ocean convection cycle, which is constrained by the Coriolis effect and the outlines of continents. Examples of models can be diagrams, maps and globes, or digital representations. Assessment does not include the dynamics of the Coriolis effect.
MS-ESS3-5.	Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.	Examples of factors include human activities (such as fossil fuel combustion, cement production, and agricultural activity) and natural processes (such as changes in incoming solar radiation or volcanic activity). Examples of evidence can include tables, graphs, and maps of global and regional temperatures, atmospheric levels of gases such as carbon dioxide and methane, and the rates of human activities. Emphasis is on the major role that human activities play in causing the rise in global temperatures.
Climate Change Extra Updates (MS-ESS3.D) and (MS-ESS3-5)	<p>Evaluate the evidence of climate change-causing pollution (greenhouse gases) and the evidence of climate change itself (rising oceans, global temperature trends, etc.) and extrapolate a correlation between the data and the result.</p> <p>Human activities, such as the release of greenhouse gases from burning fossil fuels, are major factors in the current rise in Earth's mean surface temperature (global warming). Reducing the level of climate change and reducing human vulnerability to whatever climate changes do occur depend on the understanding of climate science, engineering capabilities, and other kinds of</p>	<p>Utilize evidence of greenhouse gas pollution over time and compare this data with the evidence/result of such phenomena to draw a conclusion regarding the relationship between greenhouse gases in the atmosphere and climate change / environmental change.</p> <p>Formulate strategies to lower or eliminate greenhouse gas emissions and create hypotheses regarding how Global Climate Change will respond to such lowering of Greenhouse gases.</p>

	<p>knowledge, such as understanding of human behavior and on applying that knowledge wisely in decisions and activities.</p>	
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<p><i>Unit Name and Resources</i></p>	<p><i>Additional NJSL Standards Addressed (Cross-Curricular: 21st Century Skills, Technology, Financial Literacy, and Career Awareness Standards)</i></p>	<p><i>Outcomes, Assessments, and Modifications</i></p>

<p>Ecology and the Environment</p> <p>Resources:</p> <ol style="list-style-type: none"> 1. Science Fusion Textbook: Earth's Water and Atmosphere (ancillary material) 2. Teacher-created ActivInspire presentations (for use with Promethean Activboard/Smartboard/etc.) 3. Google Classroom and Google Docs / Slides as created by teacher and students 	<p>NJSLS-CS-8.1.8.3 Students are instructed regarding how to troubleshoot computer issues such as connectivity problems; students are encouraged to solve their problem without requiring assistance</p> <p>9.1 Examined the cost of researching the Atmosphere and Environment (including creating/launching/maintaining Weather Satellites, detailed airplane Hurricane Hunter investigations, and maintaining land-based weather observation stations and/or weather balloons for observation purposes</p> <p>NJSLS-CLKS-8.1.5.1 - Students examined the meaning of a career in: Meteorology / Atmospheric Sciences</p> <p>9.4</p>	<p>Formative Assessment: Paper-based preliminary assessment at beginning of school year (prior knowledge check), Google Form-based quiz after 2 weeks of unit</p> <p>Project 1: Student groups created a stormwater management system which helps filter and control runoff/discharge from heavy precipitation events while also demonstrating understanding of the Hydrologic (Water) Cycle (Rubric used to grade students)</p> <p>Project 2: Student groups research a particular ocean current to determine its effects on nearby land masses as well as its role in transferring heat around the globe as well as transporting nutrients and migratory animals</p> <p>Summative Assessment: Unit Test</p> <p>Alternative Assessment: Research assignment regarding climate change evidence (greenhouse gas levels) and results of climate change (hurricane frequency or strength, ocean-level rise, ice-cap depletion)</p> <p>Modifications/Accommodations: (IEP/504/At-Risk/Danger of Failing): Students may be permitted to verbally respond to open-ended and short answer questions on assessment; multiple choice questions have one less response option (3) than the typical amount (4). Study guide provided for certain students as required in IEP.</p> <ul style="list-style-type: none"> - Pass/Fail option on some assignments - May waive "enrichment" assignments
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		<p>ELL modifications: Locate news articles in one's native language that support or reject climate change OR relate to a current topic as being studied in this course.</p> <p>G + T Students: In-depth research assignments or extension activities</p> <ul style="list-style-type: none"> ● Tracking weather patterns using our school rooftop weather station / Ambient Weather network stations ● Climate Change argumentative writing ● Bonus C-E-R assignment regarding debunking erroneous climate change data <p>Visual observation: Map reading skills assessment</p>
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Cross-Curricular Standards Addressed

STANDARD	NGSS / NJSL-S	Student Learning Objectives
NJSLSA.R1	Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	Students use a variety of texts to synthesize arguments and claims and defend them in an informal debate-like conversation or in essay form
NJSLSA.R7	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	Utilize a multitude of sources to present information on a topic; choose sources carefully to encourage only unbiased, reliable information is presented
NJSLSA.R8	Delineate and evaluate the argument and specific claims in a text, including the validity of	C-E-R practice and mastery

	the reasoning as well as the relevance and sufficiency of the evidence	
NJSLSA.R10	Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.	Utilize non-fiction (informational) texts to augment comprehension and understanding of topics in Science class

Pacing Breakdown:

<i>Portion of Unit / Timeframe</i>	<i>Standards Addressed:</i>	<i>Notes:</i>
<i>Part 1: Properties and Behaviors of Water / The Hydrologic Cycle September/October (8 weeks)</i>	MS-ESS2-5. 8.1 9.1	Pre-test given prior to start of unit Formative Assessment (Checkpoint Quiz) given after week 1 of instruction
<i>Part 2: The interactions between the atmosphere, oceans, and land /meteorology / Global Climate Change November-December (8 weeks)</i>	MS-ESS2-6. MS-ESS3-5. 8.1 9.1 9.2	Final assessment for this portion of the unit is completed by completing a Post-Test as well as a Performance Test in which students debate about causes/effects of Global Climate Change. A comprehensive rubric is used to assess the students' use of data/facts to support their position in their Global Climate Change debate. Student research project used to examine the effects of ocean currents on the land masses of the Earth Project modifications: Research guide/checklist/questions available for students

Instructional Unit: The Dynamic Earth (Inside Earth and the Surface of Earth)

Subject Area: Life Science NJSL-S

Grade Level: MS Grade 6

Unit:

The Dynamic Earth (Inside Earth & Surface of Earth)

PACING: January - Mid April

OVERVIEW: After completing this unit, students should be able to understand Earth is a massive system which transfers energy in a multitude of ways. From solar energy to seismic energy, energy is present in and around Earth in many forms. The Earth itself is in constant motion, as is the energy in and around it. This unit focuses on energy at the surface of Earth and in its atmosphere, and how these types of energy interact to shape the Earth. The unit then digs deeper and examines energy beneath the surface in the form of convection currents in the mantle, moving tectonic plates, adding and recycling crust, and causing earthquakes and volcanic events.

BIG IDEAS:

Unit 1: Continuous processes on Earth's surface result in the formation and destruction of landforms and the formation of soil.

Unit 2: Rock, fossils, and other types of natural evidence are used to study Earth's history and measure Geologic time.

Unit 3: Minerals and rocks are basic building blocks of Earth and can change over time from one type of mineral to another.

Unit 4: The movement of tectonic plates accounts for important features of Earth's surface and major geologic events.

ESSENTIAL QUESTIONS:

Unit 1:

- 1. How do matter and energy move through Earth's spheres?*
- 2. How does weathering change Earth's surface?*
- 3. How does water change Earth's surface?*
- 4. How do wind, ice, and gravity change Earth's surface?*
- 5. How does soil form?*

Unit 2:

- 1. How do we learn about Earth's history?*
- 2. How are the relative ages of rock measured?*

3. *How is the absolute age of rock measured?*
4. *What is the geologic time scale?*

Unit 3:

1. *What are minerals, how do they form, and how can they be identified?*
2. *What is the rock cycle and how does it explain the formation and destruction of rocks?*
3. *How do rocks form?*

Unit 4:

1. *What are Earth's layers?*
2. *What is plate tectonics?*
3. *How do mountains form?*
4. *How do volcanoes change Earth's surface?*
5. *Why do earthquakes happen?*
6. *How are seismic waves used to study earthquakes?*

SEL Goals for this unit:

- **Goal 1 - Collaborate with students to create realistic models of Earth's structures**
- **Goal 2 - Understand your role as a human on Earth as a caretaker of the Earth**
- **Goal 3 - Foster good team-building skills and contribute positively with group members on various projects**

LGBTQ Awareness Infusion:

- **Discuss scientific research as non-discriminate toward anyone's gender, sexual preference, etc. Always let the data tell the story- all viewpoints are accepted!**

TARGET STANDARDS:

STANDARD	NGSS / NJSL-S	Student Learning Objectives
MS-ESS2-1.	Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.	Emphasis is on the processes of melting, crystallization, weathering, deformation, and sedimentation, which act together to form minerals and rocks through the cycling of Earth's materials. Assessment does not include the identification and naming of minerals.
MS-ESS2-1.	Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the	Clarification Statement: Emphasis is on the ways water changes its state as it moves through the multiple pathways of the hydrologic cycle. Examples of models

	force of gravity.	can be conceptual or physical. A quantitative understanding of the latent heats of vaporization and fusion is not assessed.
MS-ESS3-1.	Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.	Emphasis is on how these resources are limited and typically non-renewable, and how their distributions are significantly changing as a result of removal by humans. Examples of uneven distributions of resources as a result of past processes include but are not limited to petroleum (locations of the burial of organic marine sediments and subsequent geologic traps), metal ores (locations of past volcanic and hydrothermal activity associated with subduction zones), and soil (locations of active weathering and/or deposition of rock).

<i>Unit Name and Resources</i>	<i>Additional NJSLs Addressed (Cross-Curricular: 21st Century Skills, Technology, Financial Literacy, and Career Awareness Standards)</i>	<i>Outcomes, Assessments, and Modifications</i>

<p>The Dynamic Earth</p> <p>Resources:</p> <ol style="list-style-type: none"> 1. Science Fusion Textbook: The Dynamic Earth 2. Teacher-created ActivInspire presentations (for use with Promethean Activboard/Smartboard/etc.) 3. Google Classroom and Google Docs / Slides as created by teacher and students 	<p>NJSLS-CS-8.1.8.3 Students are instructed regarding how to troubleshoot computer issues such as connectivity problems; students are encouraged to solve their problem without requiring assistance</p> <p>NJSLS-CLKS-9.1.8.PB.3 There are strategies to decrease and manage expenses: Students can manage the expenses needed for model-making projects by reusing/recycling materials</p> <p>NJSLS-CLKS-9.1.8.CI.1 Utilize a variety of sources to foster creativity and independent thinking</p> <p>NJSLS-CLKS-9.2.8.CAP .1- Students examined the meaning of a career in: Geology, Seismology, Volcanology</p>	<p>Formative Assessment: Google Form-based preliminary assessment at beginning of unit (prior knowledge check)</p> <p>Project 1: Students utilized real-time seismic data to determine locations and magnitude of Earthquakes in the USA and its territories.</p> <p>Project 2: Students created a model Volcano complete with all Volcanic structures both below and above ground level. Volcano was also allowed to "erupt" using a chemical reaction to enhance realism and effect. (Rubric used for assessment)</p> <p>Summative Assessment: Unit Test</p> <p>Modifications/Accommodations: (IEP/504/At-Risk/Danger of Failing): Students may be permitted to verbally respond to open-ended and short answer questions on assessment; multiple choice questions have one less response option (3) than the typical amount (4). Study guide provided for certain students as required in IEP.</p> <ul style="list-style-type: none"> - Pass/Fail option on some assignments - May waive "enrichment" assignments <p>ELL modifications: Locate news articles in one's native language that relate to a current topic as being studied in this course (earthquakes or volcanic eruptions).</p> <p>G + T Students: In-depth research assignments or extension activities</p> <ul style="list-style-type: none"> • Tracking seismic activity and/or ground movement
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		<p>near a fault</p> <ul style="list-style-type: none"> • Monitor Sulfur Dioxide Levels at a volcano of your choice and give the class a weekly update <p>Visual Assessment: Reading a Seismograph / Real-Time seismic data (part of Earthquake Project)</p>
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Cross-Curricular Standards Addressed

STANDARD	NGSS / NJSL-S	Student Learning Objectives
NJLSA.R1	Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	Students use a variety of texts to synthesize arguments and claims and defend them in an informal debate-like conversation or in essay form
NJLSA.R7	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	Utilize a multitude of sources to present information on a topic; choose sources carefully to encourage only unbiased, reliable information is presented
NJLSA.R8	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence	C-E-R practice and mastery
NJLSA.R10	Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.	Utilize non-fiction (informational) texts to augment comprehension and understanding of topics in Science class

Pacing Breakdown:

Portion of Unit / Timeframe	Standards Addressed:	Notes:

<p>Part 1: Structure of Earth / Geology / Seismic Activity January-February (7 weeks)</p>	<p>MS-ESS2-1. MS-ESS2-4. MS-ESS3-1. 8.1 9.1</p>	<p>Pre-test given prior to start of unit Formative Assessment (Checkpoint Quiz) given after week 2 of instruction</p> <p>Project utilizes the USGS network of telemetric data and the power of the Internet to garner real-time seismic data.</p>
<p>Part 2: Cycles of Matter / Volcanoes, Minerals February-April (7 weeks)</p>	<p>MS-ESS2-1. MS-ESS2-4. MS-ESS3-1. 8.1 9.1 9.2</p>	<p>Final assessment for this portion of the unit is completed by completing a Post-Test as well as a Field Study on Identifying native/invasive plants and animals.</p> <p>A comprehensive rubric is used to assess the students' mastery of the structure of volcanoes and their role in shaping the Earth (for use in assessing the research project detailed below)</p> <p>Student research project used to create a lifelike and accurate model of a Volcano, both above and below ground (part of Summative Assessment)</p>

<p>Subject Area: Life Science NJSL-S Grade Level: MS Grade 6</p>
<p>Unit: Space Science</p>
<p>PACING: Mid-April - June</p>
<p>OVERVIEW: After completing this unit, students should be able to understand where Earth is in relation to the Solar System as well as the context of the cosmos- that we are part of a galaxy of stars (most of which have their own planetary systems) which is only a small part of</p>

the universe. Students should also understand how our Earth functions as part of our solar system and is unique in terms of temperature, atmospheric composition, length of year, etc. Students should also understand how our understanding of our place in the cosmos came to be and what empirical data was used to formulate our current theories and overall understandings. A shallow exploration into elements and compounds found in the solar system and in other stars will also occur in this unit.

BIG IDEAS:

Unit 1: The sun is one of billions of stars in one of billions of galaxies in the universe.

Unit 2: Planets and a variety of other bodies form a system of objects orbiting the sun.

Unit 3: Earth and the moon move in predictable ways and have predictable effects on each other as they orbit the sun.

Unit 4: People develop and use technology to explore and study space.

ESSENTIAL QUESTIONS:

Unit 1:

- 1. What makes up the universe?*
- 2. What are some properties of stars?*
- 3. How do stars change over time?*

Unit 2:

- 1. How have people modeled the solar system?*
- 2. Why is gravity important in the solar system?*
- 3. What are the properties of the sun?*
- 4. What is known about the terrestrial planets?*
- 5. What is known about the gas giant planets, like Uranus?*
- 6. What is found in the solar system besides the sun, planets, and moons?*

Unit 3:

- 1. How are Earth's days, years, and seasons related to the way Earth moves in space?*
- 2. How do Earth, the moon, and the sun affect each other?*
- 3. What causes tides?*

Unit 4:

- 1. What can we learn from space images?*
- 2. How do we explore space?*
- 3. What are some milestones of space exploration?*

SEL Goals for this unit:

- **Goal 1: Understand the context of the universe and humans' relatively short lifespan; make the most of every day, enjoy life, and cherish the Earth**
- **Goal 2: Maintain perspective and foster happiness and solitude in your own personal space**

LGBTQ Awareness Infusion:

- **Discuss scientific research as non-discriminate toward anyone's gender, sexual preference, etc. Always let the data tell the story- all viewpoints are accepted!**

TARGET STANDARDS:

STANDARD	NGSS / NJSLS-S	Student Learning Objectives
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.	<p>Examples of models can be physical, graphical, or conceptual.</p> <p>Assessment does not include the identification and naming of minerals.</p>
MS-ESS1-2.	Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.	<p>Emphasis for the model is on gravity as the force that holds together the solar system and Milky Way galaxy and controls orbital motions within them. Examples of models can be physical (such as the analogy of distance along a football field or computer visualizations of elliptical orbits) or conceptual (such as mathematical proportions relative to the size of familiar objects such as students' school or state).</p> <p>Assessment does not include Kepler's Laws of orbital motion or the apparent retrograde motion of the planets as viewed from Earth.</p>
MS-ESS1-3.	Analyze and interpret data to determine scale properties of objects in the solar system.	<p>Emphasis is on the analysis of data from Earth-based instruments, space-based telescopes, and spacecraft to determine similarities and differences among solar system objects. Examples of scale properties include the sizes of an object's layers (such as crust and atmosphere), surface features (such as volcanoes), and orbital radius. Examples of data include statistical information, drawings and photographs, and models.</p> <p>Assessment does not include recalling facts about properties of the planets and other solar system bodies.</p>

Unit Name and Resources	Additional NJSLs Addressed (Cross-Curricular: 21st Century Skills, Technology, Financial Literacy, and Career Awareness Standards)	Outcomes, Assessments, and Modifications
<p>Space Science</p> <p>Resources:</p> <ol style="list-style-type: none"> 1. Science Fusion Textbook: Space Science 2. Teacher-created ActivInspire presentations (for use with Promethean Activboard/Smartboard/etc.) 3. Google Classroom and Google Docs / Slides as created by teacher and students 	<p>8.1 Laptop used daily to organize data and to share information / activity results (as needed) Google Classroom utilized as well as Google Docs/Sheets/Slides/Forms depending on task at hand. Research also conducted via internet resources.</p> <p>9.1 Examined the cost of studying "outer space" and areas beyond Earth's atmosphere, including those outside of our Solar System.</p> <p>9.2 - Students examined the meaning of a career in: Astronomy, Astrophysics, Quantum Mechanics, Aerospace Engineering</p>	<p>Formative Assessment: Google Form-based preliminary assessment at beginning of unit (prior knowledge check)</p> <p>Project: Student groups investigated one particular celestial body or grouping such as a planet, moon, star, black hole, asteroid belt, etc.</p> <p>Summative Assessment: Unit Test</p> <p>Modifications/Accommodations: (IEP/504/At-Risk/Danger of Failing): Students may be permitted to verbally respond to open-ended and short answer questions on assessment; multiple choice questions have one less response option (3) than the typical amount (4). Study guide provided for certain students as required in IEP.</p> <ul style="list-style-type: none"> - Pass/Fail option on some assignments - May waive "enrichment" assignments <p>G + T Students: In-depth research assignments or extension activities</p> <ul style="list-style-type: none"> • Tracking asteroid travel or Earth's orbit into meteor zones / meteor showers • Monitor StarLink satellite, NASA satellites (like Webb Telescope) activity and provide a weekly report <p>ELL modifications: use vocabulary based on similar root language (such</p>

		as latin terms to coincide with Spanish or Portuguese speakers)
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Cross-Curricular Standards Addressed

STANDARD	NGSS / NJSLA-S	Student Learning Objectives
NJSLA.R1	Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	Students use a variety of texts to synthesize arguments and claims and defend them in an informal debate-like conversation or in essay form
NJSLA.R7	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	Utilize a multitude of sources to present information on a topic; choose sources carefully to encourage only unbiased, reliable information is presented
NJSLA.R8	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence	C-E-R practice and mastery
NJSLA.R10	Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.	Utilize non-fiction (informational) texts to augment comprehension and understanding of topics in Science class

Pacing Breakdown:

Portion of Unit / Timeframe	Standards Addressed:	Notes:
Part 1: Scale of the Universe and Our Solar System April-May (6 weeks)	MS-ESS1-1. MS-ESS1-2. MS-ESS1-3. 8.1	Pre-test given prior to start of unit Formative Assessment (Checkpoint Quiz) given after week 2 of instruction

	9.1	
<i>Part 2: Earth's place in the cosmos / revolution around the Sun May-June (4 weeks)</i>	MS-ESS1-1. MS-ESS1-2. MS-ESS1-3. 8.1 9.1 9.2	<p>Final assessment for this portion of the unit is completed by completing a Post-Test.</p> <p>A comprehensive rubric is used to assess the students' mastery of the Space Concept that they have chosen for their research project.</p> <p>Student research project used to examine how scientists have discovered Earth's relative place in the cosmos and its movement in our solar system (part of Summative Assessment)</p>