## Curriculum Development Course at a Glance

### Planning for 5th Grade Science

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<tr>
<th>Content Area</th>
<th>Grade Level</th>
<th>5th Grade</th>
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<tr>
<td><strong>Course Name/Course Code</strong></td>
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<tr>
<td><strong>Standard</strong></td>
<td><strong>Grade Level Expectations (GLE)</strong></td>
<td><strong>GLE Code</strong></td>
</tr>
<tr>
<td>1. Physical Science</td>
<td>1. Mixtures of matter can be separated regardless of how they were created; all weight and mass of the mixture are the same as the sum of weight and mass of its parts</td>
<td>SC09-GR.5-S.1-GLE.1</td>
</tr>
<tr>
<td>2. Life Science</td>
<td>1. All organisms have structures and systems with separate functions</td>
<td>SC09-GR.5-S.2-GLE.1</td>
</tr>
<tr>
<td></td>
<td>2. Human body systems have basic structures, functions, and needs</td>
<td>SC09-GR.5-S.2-GLE.2</td>
</tr>
<tr>
<td>3. Earth Systems Science</td>
<td>1. Earth and sun provide a diversity of renewable and nonrenewable resources</td>
<td>SC09-GR.5-S.3-GLE.1</td>
</tr>
<tr>
<td></td>
<td>2. Earth’s surface changes constantly through a variety of processes and forces</td>
<td>SC09-GR.5-S.3-GLE.2</td>
</tr>
<tr>
<td></td>
<td>3. Weather changes are measured by differences in temperature, air pressure, wind and water in the atmosphere and type of precipitation</td>
<td>SC09-GR.5-S.3-GLE.3</td>
</tr>
</tbody>
</table>

### Colorado 21st Century Skills

- **Critical Thinking and Reasoning:** Thinking Deeply, Thinking Differently
- **Information Literacy:** Untangling the Web
- **Collaboration:** Working Together, Learning Together
- **Self-Direction:** Own Your Learning
- **Invention:** Creating Solutions

### Intragrated Curriculum Design

This intradisciplinary approach matches basic elements in each of the science strands – physical, life, earth systems sciences - forming overlaps in instruction of certain topics and concepts in an authentic integrated model.

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<tr>
<th>Unit Titles</th>
<th>Length of Unit/Contact Hours</th>
<th>Unit Number/Sequence</th>
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<tbody>
<tr>
<td>In the Mix</td>
<td>4-6 Weeks</td>
<td>1</td>
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<tr>
<td>Life on the Inside</td>
<td>8-12 Weeks</td>
<td>2</td>
</tr>
<tr>
<td>Renewable/Nonrenewable Resources</td>
<td>4-6 Weeks</td>
<td>3</td>
</tr>
<tr>
<td>As the Earth Changes</td>
<td>4-6 Weeks</td>
<td>4</td>
</tr>
<tr>
<td>Weather or Not</td>
<td>6-8 Weeks</td>
<td>5</td>
</tr>
</tbody>
</table>
# Curriculum Development Overview

## Unit Planning for 5th Grade Science

**Unit Title**: In the Mix  
**Length of Unit**: 4 - 6 Weeks

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<tr>
<th>Focusing Lens(es)</th>
<th>Standards and Grade Level Expectations Addressed in this Unit</th>
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</thead>
<tbody>
<tr>
<td>Interactions</td>
<td>SC09-GR.5-S.1-GLE.1</td>
</tr>
</tbody>
</table>

- What would life be like if elements or other components did not interact to form mixtures?

### Unit Strands
- Physical Science

### Concepts
- mixture, matter, properties, combination, characteristics, substances, weight, mass, component,

### Generalizations

<table>
<thead>
<tr>
<th>My students will <strong>Understand</strong> that...</th>
<th>Factual</th>
<th>Guiding Questions</th>
<th>Conceptual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical properties such as weight and mass often illuminate the characteristics of an unknown substance (SC09-GR.5-S1-GLE.1-E0.a; RA.1)</td>
<td>What are some physical properties of matter?</td>
<td>How are physical properties used to identify matter? Are physical properties the only way to identify a mixture?</td>
<td></td>
</tr>
<tr>
<td>Scientists separate mixtures into identifiable components based on their physical properties (SC09-GR.5-S1-GLE.1-E0.a,b; N.1,2,3,4)</td>
<td>What are some ways that mixtures can be separated? (SC09-GR.5-S1-GLE.1; IQ2) How does separating a mixture into its component parts impact its weight/mass? (SC09-GR.5-S1-GLE.1-E0.b)</td>
<td>What are some ways that mixtures can be separated? (SC09-GR.5-S1-GLE.1; IQ1) How does separating a mixture impact everyday life? (SC09-GR.5-S1-GLE.1) Why are mixtures created and/or separated? (SC09-GR.5-S1-GLE.1)</td>
<td></td>
</tr>
<tr>
<td>Identifiable components (of a mixture) alter and/or contribute to the properties of a mixture (SC09-GR.5-S1-GLE.1-E0.a)</td>
<td>How do mixtures act similarly and differently from their original materials? (SC09-GR.5-S1-GLE.1;IQ1) Why is the weight and mass of a mixture the same as the weight and mass of its component parts? (SC09-GR.5-S1-GLE.1-E0.b)</td>
<td>When would it be necessary to create or separate a mixture? (SC09-GR.5-S1-GLE.1-E0.b) Why would it be necessary to create or separate a mixture? (SC09-GR.5-S1-GLE.1-E0.b) How do mixtures act similarly and differently from their original materials? (SC09-S1-GLE.1; IQ.1)</td>
<td></td>
</tr>
</tbody>
</table>
## Critical Content:

**My students will Know…**

- Methods for separating simple mixtures based on physical properties (SC09-GR.5-S1-GLE.1-EO.a; RA.1)
- The reasons why weight/mass of components affects the weight/mass of the mixture (SC09-GR.5-S1-GLE.1-EO.b)

## Key Skills:

**My students will be able to (Do)…**

- Ask testable questions (SC09-GR.5-S1-GLE.1; N.1)
- Select and use appropriate tools to conduct an experiment (SC09-GR.5-S1-GLE.1; N.2)
- Share the results of experiments respectfully (SC09-GR.5-S1-GLE.1; N.3)
- Develop, communicate, and justify a procedure (SC09-GR.5-S1-GLE.1-EO.a)
- Share evidence-based conclusions (SC09-GR.5-S1-GLE.1-EO.b)
- Discuss unexpected experiment results (SC09-GR.5-S1-GLE.1; N.3)
- Review and analyze scientific information (SC09-GR.5-S1-GLE.1; N.4)

## Critical Language:

**includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.**

**EXAMPLE:** A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: "Mark Twain exposes the hypocrisy of slavery through the use of satire."

A student in _________ can demonstrate the ability to apply and comprehend critical language through the following statement(s): **Mixtures can be separated based their physical properties.**

### Academic Vocabulary:

- develop, communicate, justify, analyze, data, conclusion, conduct, procedure, conclusion

### Technical Vocabulary:

- mixture, matter, weight, mass, physical properties, hypothesis, experiment, scientific reasoning, liquid, gas, testable, solution
<table>
<thead>
<tr>
<th>Unit Title</th>
<th>Life on the Inside</th>
<th>Length of Unit</th>
<th>9-12 Weeks</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Focusing Lens(es)</strong></th>
<th>Structure/Function</th>
<th>Standards and Grade Level Expectations Addressed in this Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SC09-GR.5-S.2.GLE.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SC09-GR.5-S.2.GLE.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Inquiry Questions</strong></th>
<th>Review of Life Science and the Role of Structure and Function</th>
<th>Addressed in this Unit: SC09-GR.5-S.2.GLE.1; SC09-GR.5-S.2.GLE.2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How is structure dependent on function, and how is function dependent on structure?</td>
<td></td>
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<tr>
<td></td>
<td>What is the role of society in protecting the health and survival of all humans?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Unit Strands</strong></th>
<th>Life Science</th>
<th>Life Science</th>
</tr>
</thead>
</table>

| **Concepts**            |structure, function, interaction, system, interdependence, organisms, survival|

<table>
<thead>
<tr>
<th><strong>Generalizations</strong></th>
<th><strong>Factual</strong></th>
<th><strong>Guiding Questions</strong></th>
<th><strong>Conceptual</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My students will Understand that...</strong></td>
<td><strong>What are the basic biological components of an animal or plant?</strong></td>
<td><strong>What components of a plant or animal could cease to function and still allow the organism to survive?</strong></td>
<td>What components of a plant or animal could cease to function that would cause the organism to die?</td>
</tr>
<tr>
<td></td>
<td>Which components of a plant’s or animal’s life system work interdependently with each other? How do plants and animals carry out processes necessary for life? (SC09-GR.5-S.2.GLE.1; IQ.1)</td>
<td>What adaptations or characteristics help humans to survive?</td>
<td>What adaptations or characteristics help humans to survive?</td>
</tr>
<tr>
<td></td>
<td>What different structures do plants and animals use to carry out the same functions? (SC09-GR.5-S.2.GLE.1; IQ.2)</td>
<td><strong>How do animals- especially humans- use their body structures to manipulate their environment?</strong> (SC09-GR.5-S2.GLE.1; RA.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>All organisms have structures required for their survival.</strong> (SC09-GR.5-S2.GLE.1-E0.a)</td>
<td><strong>How do animals- especially humans- use their body structures to manipulate their environment?</strong> (SC09-GR.5-S2.GLE.1; RA.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>The human body, as an organism, functions because of the interdependence of its included systems.</strong> (SC09-GR.5-S2.GLE.2)</td>
<td><strong>How are the human body systems similar to and different from those found in other organisms?</strong> (SC09-GR.5-S2-IQ.1)</td>
<td><strong>How are organs impacted when different body systems fail to work correctly?</strong> (SC09-GR.5-S.2.GLE.2; IQ.2)</td>
</tr>
<tr>
<td></td>
<td><strong>The structure of a system depends upon its function.</strong> (SC09-GR.5-S.2.GLE.2)</td>
<td><strong>How does the structure of a system affect its function?</strong> (SC09-GR.5-S.2.GLE.2.EO.d,e)</td>
<td></td>
</tr>
</tbody>
</table>
## Critical Content:

**My students will Know...**

- The role of organs or structures for an organism's survival (SC09-GR.5-S.2.GLE.1-EO.a-b)
- The structure of different organisms and how these structures adapt to different functions necessary for survival (SC09-GR.5-S.2.GLE.1; RA.1)
- How humans manipulate different structures (SC09-GR.5-S.2.GLE.1; RA.1)
- Examples of the exploitation/manipulation of animals and plants (SC09-GR.5-S.2.GLE.1; RA.2)
- Tools and materials made by humans inspired by animal or plant adaptations (SC09-GR.5-S.2.GLE.1; RA.3)
- How humans address basic survival needs (SC09-GR.5-S.2.GLE.2-EO.a)
- The interdependent nature of human systems are interdependent (SC09-GR.5-S.2.GLE.2.EO.b)
- The function of basic human systems and organs (SC09-GR.5-S.2.GLE.2-EO.c-d)
- Examples of goals that people create for their lifestyle such as exercising every day and eating healthy foods (SC09-GR.5-S.2.GLE.2; RA.1)
- Societal norms and practices intended to protect our health such as wearing a bicycle helmet can be based on scientific evidence (SC09-GR.5-S.2.GLE.2; RA.2)

## Key Skills:

**My students will be able to (Do)...**

- Develop and communicate an evidence-based scientific explanation (SC09-GR.5-S.2.GLE.2-EO.a)
- Analyze and interpret data to generate evidence (SC09-GR.5-S.2.GLE.2-EO.b)
- Create and evaluate models (SC09-GR.5-S.2.GLE.2-EO.c)
- Review and analyze information presented by peers (SC09-GR.5-S.2.GLE.1; N.1)
- Provide feedback to peers based on presented evidence (SC09-GR.5-S.2.GLE.1; N.1)
- Assess scientific explanations (SC09-GR.5-S.2.GLE.2-EO.c)
- Compare and contrast systems and functions (SC09-GR.5-S.2.GLE.2-EO.e)

## Critical Language:

Includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.

**EXAMPLE:** A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: *"Mark Twain exposes the hypocrisy of slavery through the use of satire."*

*A student in ____________ can demonstrate the ability to apply and comprehend critical language through the following statement(s):*

**The human body is made of systems and the systems work independent and interdependent of each other.**

**Academic Vocabulary:**
- system, structure, function, interpret, manipulate, exploit, analyze, interdependent, evidence, dependence

**Technical Vocabulary:**
- organisms, organ, adaptations, muscular, skeletal, respiratory, digestive, nervous, circulatory, immune
## Unit Planning for 5th Grade Science

### Unit Title
Renewable and Nonrenewable Resources

### Length of Unit
4 – 6 Weeks

<table>
<thead>
<tr>
<th>Focusing Lens(es)</th>
<th>Standards and Grade Level Expectations Addressed in this Unit</th>
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<tr>
<td>Origins</td>
<td>SC09-GR.5-S.3-GLE.1</td>
</tr>
<tr>
<td></td>
<td>RWC10-GR.5-S.1-GLE.1</td>
</tr>
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<table>
<thead>
<tr>
<th>Inquiry Questions (Engaging-Debatable):</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What are the consequences to the earth of utilizing renewable and nonrenewable resources? (SC09-GR.5-S3-GLE.1)</td>
</tr>
</tbody>
</table>

### Unit Strands
Earth Science

### Concepts
renewable resources, nonrenewable resources, energy, natural resources

## Generalizations

**My students will Understand that...**

### Natural resources, generated by the sun or the Earth and used by humans, provide energy for daily activities. (SC09-GR.5-S3-GLE.1-EO.a)
- What natural resources provide energy? (SC09-GR.5-S3-GLE.1; IQ.1,2,3)
- What are the characteristics of renewable and nonrenewable resources? (SC09-GR.5-S3-GLE.1-EO.b)
- Where are natural resources found? (SC09-GR.5-S3-GLE.1-EO.b)

### Many natural resources provide sources of energy which humans, plants, and animals can harness for consumption. (SC09-GR.5-S.3-GLE.1)
- What natural resources provide energy? (SC09-GR.5-S3-GLE.1-EO.b; IQ.1,2,3; N.1,2)

### The physical environment provides opportunities for and places constraints on human activities (SC09-GR.5-S3-GLE.1-EO.b; N.1)
- How does the environment affect human activity?
- How does human activity affect the environment?
- What must be done to keep individuals and businesses from negatively affecting the environment?

## Guiding Questions

<table>
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<th>Conceptual</th>
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<tr>
<td>How do natural resources provide energy? (SC09-GR.5-S3-GLE.1-EO.b)</td>
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<tr>
<td>Why are natural resources not distributed evenly across the earth? (SC09-GR.5-S3-GLE.1; RA.2)</td>
<td></td>
</tr>
<tr>
<td>Why are some resources nonrenewable? (SC09-GR.5-S3-GLE.1)</td>
<td></td>
</tr>
<tr>
<td>What are the effects of utilizing nonrenewable resources? (SC09-GR.5-S.3-GLE.1)</td>
<td></td>
</tr>
<tr>
<td>How do natural resources provide energy? How can the sun be used as an energy source? (SC09-GR.5-S3-GLE.1; IQ.1)</td>
<td></td>
</tr>
<tr>
<td>How can the wind be used as an energy source? (SC09-GR.5-S.3-GLE.1; IQ.2)</td>
<td></td>
</tr>
<tr>
<td>What types of energy sources exist on earth? (SC09-GR.5-S.3-GLE.1; IQ.3)</td>
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</tr>
</tbody>
</table>
Humans, more than any other animal, have the power to make decisions that contribute to the protection or endangerment of Earth’s environment (RWC10-GR.5-S1-GLE.1-EO.a; IQ.3) and (SC09-GR.5-S3-GLE.1; N.1)

What are some human behaviors which effect the environment? (SC09-GR.5-S3-GLE.1-EO.b; RA.1,2,3; N.1)

Which human behaviors can and cannot be continued if we wish to maintain a healthy environment? (SC09-GR.5-S3-GLE.1-EO.b; RA.1,2,3; N.1)

Critical Content:
My students will Know...

- Renewable or nonrenewable energy sources (SC09-GR.5-S.3-GLE.1)
- Natural resources used to provide energy (SC09-GR.5-S.3-GLE.1)
- Examples of nonrenewable resources provided by mining operations (SC09-GR.5-S.3-GLE.1; RA.1)
- The limited nature of nonrenewable energy sources (SC09-GR.5-S.3-GLE.1)
- Ways in which the distribution of resources is accomplished to meet human needs (SC09-GR.5-S.3-GLE.1; RA.2)
- The reasons why towns are often built around resource extraction (SC09-GR.5-S.3-GLE.1; RA.3)
- The variety of renewable and nonrenewable resources the Earth and Sun provide (SC09-GR.5-S.3-GLE.1; N.2)
- The ways in which the environment affects humans and vice versa. (SS09-GR4-GLE.2; IQ.3) (SC09-GR.5-S3-GLE.1-EO.b; N.1)

Key Skills:
My students will be able to (Do)...

- Develop and communicate an evidence-based scientific explanation (SC09-GR.5-S.3-GLE.1-EO.a)
- Analyze and interpret data to generate evidence (SC09-GR.5-S.3-GLE.1-EO.b)
- Review and analyze information presented by peers (SC09-GR.5-S.3-GLE.1; N.1)
- Provide feedback to peers based on reasonable scientific evidence (SC09-GR.5-S.3-GLE.1; N.1)
- Assess scientific explanations (SC09-GR.5-S.3-GLE.1-EO.c)
- Speak clearly and accurately to persuade an audience (RWC10-GR.5-S1-GLE.1-EO.a; IQ.3)

Critical Language: includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.

EXAMPLE: A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: “Mark Twain exposes the hypocrisy of slavery through the use of satire.”

A student in ____________ can demonstrate the ability to apply and comprehend critical language through the following statement(s):

Academic Vocabulary: energy, energy sources, natural resources

Technical Vocabulary: resource, renewable, nonrenewable, extraction

Energy on earth is provided from many sources.
Some energy sources are limited.
## Unit Title
As the Earth Changes

## Length of Unit
4 weeks

### Focusing Lens(es)
Transformation

### Standards and Grade Level Expectations Addressed in this Unit
- SC09-GR.5-S.3-GLE.2
- SC09-GR.5-S.3-GLE.3

### Inquiry Questions (Engaging-Debatable):
- How do changes on the Earth’s surface impact humans? (SC09-GR.5-S.3-GLE.2; IQ.2)

### Unit Strands
Earth Science

### Concepts
- process, force, change, impact, technology, tectonic, erosion, earth’ surface

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### Generalizations

My students will **Understand** that...

<table>
<thead>
<tr>
<th>Factual</th>
<th>Guiding Questions</th>
<th>Conceptual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tectonic and erosional forces change the earth’s surface. (SC09-GR.5-S3-GLE.2-EO.a)</td>
<td>What are some tectonic and erosional forces that can change surface of the earth?</td>
<td>How do tectonic and erosional forces work together to form the surface features of the earth? How does Earth’s surface change? (SC09-GR.5-S.3-GLE.2; IQ.1)</td>
</tr>
<tr>
<td>Sudden changes as well as changes over geologic time have profound impacts on humans. (SC09-GR.5-S3-GLE.2-EO.a)</td>
<td>What are the forces that cause the Earth’s surface to change? (SC09-GR.5-S3-GLE.2; IQ.1)</td>
<td>How have humans learned to adapt to changes to the earth’s surface. (SC09-GR.5-S3-GLE.2-I.2) What are the benefits and dangers to humans as the earth’s surface changes? (SC09-GR.5-S3-GLE.2; IQ.2)</td>
</tr>
<tr>
<td>Technology can predict changes in the earth’s surface. (SC09-GR.5-S3-GLE2; RA.4)</td>
<td>What instruments are used to predict changes in the earth's surface?</td>
<td>How can predicting changes in the earth's surface benefit humans?</td>
</tr>
</tbody>
</table>
### Critical Content:

**My students will Know…**

- How plate tectonics, erosion, deposition, solar influences, climate, and human activity change the earth’s surface (SC09-GR.5-S.3-GLE.2-EO.a)
- The benefits and dangers to humans as Earth’s surface constantly changes (SC09-GR.5-S.3-GLE.2; RA.1)
- Examples of how communities compensate for the effects of our changing Earth (SC09-GR.5-S.3-GLE.2; RA.2)
- Details of emergency plans that cities create in order to plan for earthquakes, flooding, volcanic eruptions, tornadoes, and other natural events (SC09-GR.5-S.3-GLE.2; RA.3)
- The development of technology that led to tools and the establishment of measurement standards (SC09-GR.5-S.3-GLE.2; RA.3)

### Key Skills:

**My students will be able to (Do)...**

- Analyze and interpret data (SC09-GR.5-S.3-GLE.2-EO.a,b)
- Develop and communicate an evidence based scientific explanation (SC09-GR.5-S.3-GLE.2-EO.b) (SC09-GR.5-S.3-GLE.3-EO.a)
- Ask testable questions (SC09-GR.5-S.3-GLE.2; N.1)
- Assess and provide feedback on a peer’s scientific explanations (SC09-GR.5-S.3-GLE.2; N.3)

### Critical Language:

**includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.**

**EXAMPLE:** A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: “*Mark Twain exposes the hypocrisy of slavery through the use of satire.*”

**A student in _____________ can demonstrate the ability to apply and comprehend critical language through the following statement(s):**

**The earth is constantly changing because of the motion of the tectonic plates, erosion, deposition, and human activity.**

<table>
<thead>
<tr>
<th>Academic Vocabulary:</th>
<th>forces, processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Vocabulary:</td>
<td>plate, tectonics, erosion, deposition, earthquake, eruption, lava, magma</td>
</tr>
</tbody>
</table>
## Unit Title
Weather or Not

## Length of Unit
6-8 weeks

### Focusing Lens(es)
Change

### Standards and Grade Level Expectations Addressed in this Unit
SC09-GR.5-S.3-GLE.3

### Inquiry Questions (Engaging-Debatable):
- How has accurate weather prediction allowed for the advancement of society? (SC09-GR.5-S3-GLE.3)

### Unit Strands
Earth Science

### Concepts
weather, condition, change, energy, solar influence, prediction, heat

### Generalizations

<table>
<thead>
<tr>
<th>My students will <strong>Understand</strong> that...</th>
<th>Factual</th>
<th>Guiding Questions</th>
<th>Conceptual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather conditions are measurable, and scientists work to measure them in order to make weather predictions. (SC09-GR.5-S3-GLE.3)</td>
<td>What conditions of weather are measurable? (SC09-GR.5-S3-GLE.3-EO.b) What drives the weather?</td>
<td>How do changing conditions affect weather? (SC09-GR.5-S3-GLE.3; N.2) Why would people want to predict weather conditions? (SC09-GR.5-S3-GLE.3; N.2)</td>
<td></td>
</tr>
<tr>
<td>Weather conditions change when the sun heats different surfaces at different rates causing the earth to heat unevenly. (SC09-GR.5-S3-GLE.3; RA.1)</td>
<td>Why does the Sun heat different surfaces at different rates? (SC09-GR.5-S3-GLE.3-IQ.1) Why does weather change from day to day? (SC09-GR.5-S3-GLE.3-IQ.2)</td>
<td>How does the sun's energy impact weather? Why does weather change from day to day? (SC09-GR.5-S3-GLE.3; IQ.2)</td>
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<tr>
<td>People can make predictions about weather based on measurable weather conditions. (SC09-GR.5-S3-GLE.3-EO.b,c; RA.4)</td>
<td>What aspects of weather conditions can be predicted? (SC09-GR.5-S3-GLE.3-EO.b,c; RA.1)</td>
<td>Why would people want to predict weather conditions? (SC09-GR.5-S3-GLE.3-EO.b,c; RA.1)</td>
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</table>
### Critical Content:
**My students will Know...**
- The constantly changing nature of weather (SC09-GR.5-S.3-GLE.3-EO.a)
- How air pressure, wind, temperature, and humidity affect daily weather conditions (SC09-GR.5-S.3-GLE.3-EO.b)
- Tools used to collect weather data used to describe weather conditions (SC09-GR.5-S.3-GLE.3-EO.c-d)
- The components of the water cycle and how they impact weather (SC09-GR.5-S.3-GLE.3; RA.1)

### Key Skills:
**My students will be able to (Do)...**
- Analyze and interpret data (SC09-GR.5-S.3-GLE.3-EO.a,b)
- Develop and communicate an evidence based scientific explanation (SC09-GR.5-S.3-GLE.3-EO.a)
- Assess and provide feedback on a peer's scientific explanations (SC09-GR.5-S.3-GLE.3-; N.3)
- Gather, analyze, and interpret, data (SC09-GR.5-S.3-GLE.3-EO.b)
- Describe weather conditions (SC09-GR.5-S.3-GLE.3-EO.c)
- Use data collections tools to measure weather (SC09-GR.5-S.3-GLE.3-EO.d)
- Use evidence to support scientific explanations (SC09-GR.5-S.3-GLE.3; N.1)

### Critical Language:
Includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.

**EXAMPLE:** A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: *"Mark Twain exposes the hypocrisy of slavery through the use of satire."*

**A student in _____________ can demonstrate the ability to apply and comprehend critical language through the following statement(s):**

**Changes in weather conditions can be explained using humidity, air pressure, temperature, and wind.**

<table>
<thead>
<tr>
<th>Academic Vocabulary:</th>
<th>weather, condition, cycle</th>
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</thead>
<tbody>
<tr>
<td>Technical Vocabulary:</td>
<td>humidity, air pressure, temperature, wind, water cycle</td>
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</table>