National Council for the Social Studies (NCSS), National Geography Standards (NGS), Next Generation Science Standards (NGSS)

Subjects: Science, Social Studies

Grades: 2, 3, 4, 5, 6, 7

Virtual Field Trips

African Safari

National Council for the Social Studies (NCSS)

Social Studies

Grade 2 - Adopted: 2010

<table>
<thead>
<tr>
<th>THEME</th>
<th>NCSS.3. PEOPLE, PLACES, AND ENVIRONMENTS</th>
</tr>
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Grade 3 - Adopted: 2010

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Grade 4 - Adopted: 2010

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Grade 5 - Adopted: 2010

**THEME**  
NCSS.3. PEOPLE, PLACES, AND ENVIRONMENTS

**DEFINITION**  
SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.

**CATEGORY** 3.1. KNOWLEDGE - Learners will understand:

**LEARNING EXPECTATION** 3.1.1. The theme of people, places, and environments involves the study of the relationships between human populations in different locations and geographic phenomena such as climate, vegetation, and natural resources.

**LEARNING EXPECTATION** 3.1.3. Past and present changes in physical systems, such as seasons, climate, and weather, and the water cycle, in both national and global contexts.

**LEARNING EXPECTATION** 3.1.5. The concept of regions identifies links between people in different locations according to specific criteria (e.g., physical, economic, social, cultural, or religious).

Grade 6 - Adopted: 2010

**THEME**  
NCSS.3. PEOPLE, PLACES, AND ENVIRONMENTS

**DEFINITION**  
SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.

**CATEGORY** 3.1. KNOWLEDGE - Learners will understand:

**LEARNING EXPECTATION** 3.1.1. The theme of people, places, and environments involves the study of the relationships between human populations in different locations and geographic phenomena such as climate, vegetation, and natural resources.

**LEARNING EXPECTATION** 3.1.3. Past and present changes in physical systems, such as seasons, climate, and weather, and the water cycle, in both national and global contexts.

**LEARNING EXPECTATION** 3.1.5. The concept of regions identifies links between people in different locations according to specific criteria (e.g., physical, economic, social, cultural, or religious).

Grade 7 - Adopted: 2010

**THEME**  
NCSS.3. PEOPLE, PLACES, AND ENVIRONMENTS

**DEFINITION**  
SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.

**CATEGORY** 3.1. KNOWLEDGE - Learners will understand:

**LEARNING** 3.1.1. The theme of people, places, and environments involves the study of the
EXPECTATION

relationships between human populations in different locations and geographic phenomena such as climate, vegetation, and natural resources.

LEARNING EXPECTATION 3.1.3. Past and present changes in physical systems, such as seasons, climate, and weather, and the water cycle, in both national and global contexts.

LEARNING EXPECTATION 3.1.5. The concept of regions identifies links between people in different locations according to specific criteria (e.g., physical, economic, social, cultural, or religious).

National Geography Standards (NGS)

Science

Grade 2 - Adopted: 2012

ESSENTIAL ELEMENT NGS.PR. Places and Regions
STANDARD PR.4. The physical and human characteristics of places
STRAND PR.4.2. The Characteristics of Places: Places have physical and human characteristics

BENCHMARK PR.4.2.A. Describe and compare the physical characteristics of places at a variety of scales, local to global, as exemplified by being able to

EXPECTATION PR.4.2.A.2. Describe and compare the vegetation in different places in the world (e.g., deserts, mountains, rain forests, plains).

EXPECTATION PR.4.2.A.3. Describe and compare the physical environments and landforms of different places in the world (e.g., mountains, islands, valleys or canyons, mesas).

ESSENTIAL ELEMENT NGS.PS. Physical Systems
STANDARD PS.7. The physical processes that shape the patterns of Earth's surface
STRAND PS.7.1. Components of Earth’s Physical Systems: There are four components of Earth's physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere)

BENCHMARK PS.7.1.A. Identify attributes of Earth's different physical systems, as exemplified by being able to

EXPECTATION PS.7.1.A.3. Identify examples of landforms on Earth's surface (e.g., mountains, volcanoes, valleys, plains).

ESSENTIAL ELEMENT NGS.PS. Physical Systems
STANDARD PS.7. The physical processes that shape the patterns of Earth's surface
STRAND PS.7.3. Physical Processes: Physical processes shape features on Earth’s surface

BENCHMARK PS.7.3.B. Describe how physical processes shape features on Earth’s surface, as exemplified by being able to

EXPECTATION PS.7.3.B.2. Describe the physical processes that shaped particular landform features using pictures of landforms such as canyons, mesas, and deltas.

ESSENTIAL ELEMENT NGS.PS. Physical Systems
STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND PS.8.1. Components of Ecosystems: The components of ecosystems

BENCHMARK PS.8.1.A. Identify the components of different ecosystems, as exemplified by being able to
<table>
<thead>
<tr>
<th>EXPECTATION</th>
<th>PS.8.1.A.2.</th>
<th>Identify examples of each ecosystem component (e.g., pine trees versus grasslands, low versus high rainfall, clay versus sandy soils).</th>
</tr>
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<tbody>
<tr>
<td>EXPECTATION</td>
<td>PS.8.1.A.3.</td>
<td>Describe local ecosystems by surveying and recording the properties of their components.</td>
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<tr>
<td>ESSENTIAL ELEMENT</td>
<td>NGS.PS.</td>
<td>Physical Systems</td>
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<td>STRAND</td>
<td>PS.8.2.</td>
<td>Characteristics and Geographic Distribution of Ecosystems: The characteristics of ecosystems</td>
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<tr>
<td>BENCHMARK</td>
<td>PS.8.2.A.</td>
<td>Identify and describe the characteristics of ecosystems, as exemplified by being able to</td>
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<tr>
<td>EXPECTATION</td>
<td>PS.8.2.A.1.</td>
<td>Identify and describe the characteristics of an ecosystem (specific types of plants, climate, and soil) in which a favorite or interesting creature lives.</td>
</tr>
<tr>
<td>EXPECTATION</td>
<td>PS.8.2.A.2.</td>
<td>Identify and draw pictures of different plants and animals in various local ecosystems (e.g., a pond, forest, city park).</td>
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<tr>
<td>EXPECTATION</td>
<td>PS.8.2.A.3.</td>
<td>Compare the characteristics of different ecosystems (e.g., pond, deciduous forest, coral reef).</td>
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<td>PS.8.3.</td>
<td>Characteristics and Geographic Distribution of Biomes: The characteristics of biomes</td>
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<td>BENCHMARK</td>
<td>PS.8.3.A.</td>
<td>Describe the characteristics of biomes, as exemplified by being able to</td>
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<td>EXPECTATION</td>
<td>PS.8.3.A.1.</td>
<td>Describe the defining characteristics of a biome as a large region of ecosystems with similar climate and vegetation characteristics. Describe the temperature, precipitation, and vegetation characteristics of various biomes, (e.g., deserts, grasslands, savannahs, temperate forests, tropical forests, arctic tundra). Identify the characteristics in photographs of different types of vegetation and match them to the appropriate sections of a world climate map (e.g., cacti and succulents on a desert climate region, tropical forest trees on a tropical climate region, coral in shallow, tropical marine waters).</td>
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<td>How human actions modify the physical environment</td>
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<td>STRAND</td>
<td>ES.14.3.</td>
<td>Consequences for People and Environments: The consequences of human modifications of the physical environment</td>
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<td>BENCHMARK</td>
<td>ES.14.3.A.</td>
<td>Identify and describe examples of how human activities impact the physical environment, as exemplified by being able to</td>
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<tr>
<td>EXPECTATION</td>
<td>ES.14.3.A.1.</td>
<td>Identify and describe the changes in local habitats that resulted from human activities.</td>
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<td>The Uses of Geography</td>
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<td>STANDARD</td>
<td>UG.18.</td>
<td>How to apply geography to interpret the present and plan for the future</td>
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<td>STRAND</td>
<td>UG.18.1.</td>
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BENCHMARK  UG.18.1.A.  Analyze geographic contexts in which current events and issues occur, as exemplified by being able to
Analyze a current environmental issue in the region (e.g., building or demolishing a dam, building or expansion of freeway system, creation of parks and open spaces, regulatory legislation on industry to prevent further air, water, and land pollution) and describe ways in which people and the environment interact to affect the issue positively and negatively.

National Geography Standards (NGS)

Grade 3 - Adopted: 2012

Science

ESSENTIAL ELEMENT  NGS.PR.  Places and Regions
STANDARD  PR.4.  The physical and human characteristics of places
STRAND  PR.4.2.  The Characteristics of Places: Places have physical and human characteristics

BENCHMARK  PR.4.2.A.  Describe and compare the physical characteristics of places at a variety of scales, local to global, as exemplified by being able to

EXPECTATION  PR.4.2.A.2.  Describe and compare the vegetation in different places in the world (e.g., deserts, mountains, rain forests, plains).

EXPECTATION  PR.4.2.A.3.  Describe and compare the physical environments and landforms of different places in the world (e.g., mountains, islands, valleys or canyons, mesas).

ESSENTIAL ELEMENT  NGS.PS.  Physical Systems
STANDARD  PS.7.  The physical processes that shape the patterns of Earth's surface
STRAND  PS.7.1.  Components of Earth’s Physical Systems: There are four components of Earth's physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere)

BENCHMARK  PS.7.1.A.  Identify attributes of Earth's different physical systems, as exemplified by being able to

EXPECTATION  PS.7.1.A.3.  Identify examples of landforms on Earth's surface (e.g., mountains, volcanoes, valleys, plains).

ESSENTIAL ELEMENT  NGS.PS.  Physical Systems
STANDARD  PS.7.  The physical processes that shape the patterns of Earth's surface
STRAND  PS.7.3.  Physical Processes: Physical processes shape features on Earth’s surface

BENCHMARK  PS.7.3.B.  Describe how physical processes shape features on Earth’s surface, as exemplified by being able to

EXPECTATION  PS.7.3.B.2.  Describe the physical processes that shaped particular landform features using pictures of landforms such as canyons, mesas, and deltas.

ESSENTIAL ELEMENT  NGS.PS.  Physical Systems
STANDARD  PS.8.  The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND  PS.8.1.  Components of Ecosystems: The components of ecosystems

BENCHMARK  PS.8.1.A.  Identify the components of different ecosystems, as exemplified by being able to

EXPECTATION  PS.8.1.A.2.  Identify examples of each ecosystem component (e.g., pine trees versus
grasses, low versus high rainfall, clay versus sandy soils).

**EXPECTATION** PS.8.1.A.3. Describe local ecosystems by surveying and recording the properties of their components.

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

**STRAND** PS.8.2. Characteristics and Geographic Distribution of Ecosystems: The characteristics of ecosystems

**BENCHMARK** PS.8.2.A. Identify and describe the characteristics of ecosystems, as exemplified by being able to

**EXPECTATION** PS.8.2.A.1. Identify and describe the characteristics of an ecosystem (specific types of plants, climate, and soil) in which a favorite or interesting creature lives.

**EXPECTATION** PS.8.2.A.2. Identify and draw pictures of different plants and animals in various local ecosystems (e.g., a pond, forest, city park).

**EXPECTATION** PS.8.2.A.3. Compare the characteristics of different ecosystems (e.g., pond, deciduous forest, coral reef).

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

**STRAND** PS.8.3. Characteristics and Geographic Distribution of Biomes: The characteristics of biomes

**BENCHMARK** PS.8.3.A. Describe the characteristics of biomes, as exemplified by being able to

**EXPECTATION** PS.8.3.A.1. Describe the defining characteristics of a biome as a large region of ecosystems with similar climate and vegetation characteristics.

**EXPECTATION** PS.8.3.A.2. Describe the temperature, precipitation, and vegetation characteristics of various biomes, (e.g., deserts, grasslands, savannahs, temperate forests, tropical forests, arctic tundra).

**EXPECTATION** PS.8.3.A.3. Identify the characteristics in photographs of different types of vegetation and match them to the appropriate sections of a world climate map (e.g., cacti and succulents on a desert climate region, tropical forest trees on a tropical climate region, coral in shallow, tropical marine waters).

**ESSENTIAL ELEMENT** NGS.ES. Environment and Society

**STANDARD** ES.14. How human actions modify the physical environment

**STRAND** ES.14.3. Consequences for People and Environments: The consequences of human modifications of the physical environment

**BENCHMARK** ES.14.3.A. Identify and describe examples of how human activities impact the physical environment, as exemplified by being able to

**EXPECTATION** ES.14.3.A.1. Identify and describe the changes in local habitats that resulted from human activities.

**ESSENTIAL ELEMENT** NGS.UG. The Uses of Geography

**STANDARD** UG.18. How to apply geography to interpret the present and plan for the future

**STRAND** UG.18.1. Using Geography to Interpret the Present and Plan for the Future: Geographic contexts (the human and physical characteristics of places and environments) are the settings for current events

**BENCHMARK** UG.18.1.A. Analyze geographic contexts in which current events and issues occur, as
exemplified by being able to
Analyze a current environmental issue in the region (e.g., building or
demolishing a dam, building or expansion of freeway system, creation of
parks and open spaces, regulatory legislation on industry to prevent further
air, water, and land pollution) and describe ways in which people and the
environment interact to affect the issue positively and negatively.

National Geography Standards (NGS)
Science

Grade 4 - Adopted: 2012

ESSENTIAL ELEMENT NGS.PR. Places and Regions
STANDARD PR.4. The physical and human characteristics of places
STRAND PR.4.2. The Characteristics of Places: Places have physical and human characteristics
BENCHMARK PR.4.2.A. Describe and compare the physical characteristics of places at a variety of scales, local to global, as exemplified by being able to
EXPECTATION PR.4.2.A.2. Describe and compare the vegetation in different places in the world (e.g., deserts, mountains, rain forests, plains).
DESCRIBE AND COMPARE THE PHYSICAL ENVIRONMENTS AND LANDFORMS OF
EXPECTATION PR.4.2.A.3. different places in the world (e.g., mountains, islands, valleys or canyons, mesas).

ESSENTIAL ELEMENT NGS.PS. Physical Systems
STANDARD PS.7. The physical processes that shape the patterns of Earth's surface
STRAND PS.7.1. Components of Earth’s Physical Systems: There are four components of Earth's physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere)
BENCHMARK PS.7.1.A. Identify attributes of Earth's different physical systems, as exemplified by being able to
EXPECTATION PS.7.1.A.3. Identify examples of landforms on Earth's surface (e.g., mountains, volcanoes, valleys, plains).

ESSENTIAL ELEMENT NGS.PS. Physical Systems
STANDARD PS.7. The physical processes that shape the patterns of Earth's surface
STRAND PS.7.3. Physical Processes: Physical processes shape features on Earth’s surface
BENCHMARK PS.7.3.B. Describe how physical processes shape features on Earth’s surface, as exemplified by being able to
EXPECTATION PS.7.3.B.2. Describe the physical processes that shaped particular landform features using pictures of landforms such as canyons, mesas, and deltas.

ESSENTIAL ELEMENT NGS.PS. Physical Systems
STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth’s surface
STRAND PS.8.1. Components of Ecosystems: The components of ecosystems
BENCHMARK PS.8.1.A. Identify the components of different ecosystems, as exemplified by being able to
EXPECTATION PS.8.1.A.2. Identify examples of each ecosystem component (e.g., pine trees versus grasslands, low versus high rainfall, clay versus sandy soils).

EXPECTATION PS.8.1.A.3. Describe local ecosystems by surveying and recording the properties of their components.

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STRAND PS.8.2. Characteristics and Geographic Distribution of Ecosystems: The characteristics of ecosystems

BENCHMARK PS.8.2.A. Identify and describe the characteristics of ecosystems, as exemplified by being able to

EXPECTATION PS.8.2.A.1. Identify and describe the characteristics of an ecosystem (specific types of plants, climate, and soil) in which a favorite or interesting creature lives.

EXPECTATION PS.8.2.A.2. Identify and draw pictures of different plants and animals in various local ecosystems (e.g., a pond, forest, city park).

EXPECTATION PS.8.2.A.3. Compare the characteristics of different ecosystems (e.g., pond, deciduous forest, coral reef).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STRAND PS.8.3. Characteristics and Geographic Distribution of Biomes: The characteristics of biomes

BENCHMARK PS.8.3.A. Describe the characteristics of biomes, as exemplified by being able to

EXPECTATION PS.8.3.A.1. Describe the defining characteristics of a biome as a large region of ecosystems with similar climate and vegetation characteristics.

EXPECTATION PS.8.3.A.2. Describe the temperature, precipitation, and vegetation characteristics of various biomes, (e.g., deserts, grasslands, savannas, temperate forests, tropical forests, arctic tundra).

EXPECTATION PS.8.3.A.3. Identify the characteristics in photographs of different types of vegetation and match them to the appropriate sections of a world climate map (e.g., cacti and succulents on a desert climate region, tropical forest trees on a tropical climate region, coral in shallow, tropical marine waters).

ESSENTIAL ELEMENT NGS.ES. Environment and Society

STANDARD ES.14. How human actions modify the physical environment

STRAND ES.14.3. Consequences for People and Environments: The consequences of human modifications of the physical environment

BENCHMARK ES.14.3.A. Identify and describe examples of how human activities impact the physical environment, as exemplified by being able to

EXPECTATION ES.14.3.A.1. Identify and describe the changes in local habitats that resulted from human activities.

ESSENTIAL ELEMENT NGS.UG. The Uses of Geography

STANDARD UG.18. How to apply geography to interpret the present and plan for the future

STRAND UG.18.1. Using Geography to Interpret the Present and Plan for the Future: Geographic contexts (the human and physical characteristics of places
and environments) are the settings for current events

**BENCHMARK** UG.18.1.A. Analyze geographic contexts in which current events and issues occur, as exemplified by being able to
Analyze a current environmental issue in the region (e.g., building or demolishing a dam, building or expansion of freeway system, creation of

**EXPECTATION** UG.18.1.A.3. parks and open spaces, regulatory legislation on industry to prevent further air, water, and land pollution) and describe ways in which people and the environment interact to affect the issue positively and negatively.

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**National Geography Standards (NGS)**

**Science**

**Grade 5 - Adopted: 2012**

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.7. The physical processes that shape the patterns of Earth's surface
Components of Earth’s Physical Systems: The four components of Earth’s physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere) are interdependent

**STRAND** PS.7.1. Earth-Sun Relationships: Earth-Sun relationships drives physical processes that follow an annual cycle and create patterns on Earth

**BENCHMARK** PS.7.1.A. Identify and describe patterns in the environment that result from the interaction of Earth’s physical processes, as exemplified by being able to
Identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).

**EXPECTATION** PS.7.1.A.2.

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.7. The physical processes that shape the patterns of Earth's surface

**STRAND** PS.7.2. Components of Ecosystems: Components of ecosystems are interdependent

**BENCHMARK** PS.7.2.A. Explain how Earth-Sun relationships drive Earth’s physical processes and create annual patterns, as exemplified by being able to
Explain the occurrences of weather phenomena in different locations due to annual changes in the Earth-Sun relationship (e.g., hurricanes in the fall in subtropical areas, monsoon rainfall, tornadoes in the mid-latitudes during the spring and summer).

**EXPECTATION** PS.7.2.A.1.

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

**STRAND** PS.8.1. Components of Ecosystems: Components of ecosystems are interdependent

**BENCHMARK** PS.8.1.B. Construct a model to explain how an ecosystem works, as exemplified by being able to
Construct a flow chart to explain the interactions of components within an ecosystem (e.g., water cycle, oxygen and carbon dioxide exchange, producers, consumers, and decomposers).

**EXPECTATION** PS.8.1.B.3.

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems.

Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to explain how different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.

Physical Systems

The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes.

Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.

Environment and Society

How human actions modify the physical environment

Consequences for People and Environments: The physical environment can both accommodate and be endangered by human activities

Analyze the positive and negative consequences of humans changing the physical environment, as exemplified by being able to analyze the ways humans can have positive effects on the physical environment (e.g., open green space protection, wetland restoration, sustainable forestry).

National Geography Standards (NGS)

Science

Grade 6 - Adopted: 2012

The physical processes that shape the patterns of Earth’s surface

Components of Earth’s Physical Systems: The four components of Earth’s physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere) are interdependent

Identify and describe patterns in the environment that result from the interaction of Earth’s physical processes, as exemplified by being able to identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).

Earth-Sun Relationships: Earth-Sun relationships drives physical processes
that follow an annual cycle and create patterns on Earth.

**BENCHMARK** PS.7.2.A. Explain how Earth-Sun relationships drive Earth’s physical processes and create annual patterns, as exemplified by being able to

**EXPECTATION** PS.7.2.A.1. Explain the occurrences of weather phenomena in different locations due to annual changes in the Earth-Sun relationship (e.g., hurricanes in the fall in subtropical areas, monsoon rainfall, tornadoes in the mid-latitudes during the spring and summer).

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

**STRAND** PS.8.1. Components of Ecosystems: Components of ecosystems are interdependent

**BENCHMARK** PS.8.1.B. Construct a model to explain how an ecosystem works, as exemplified by being able to

**EXPECTATION** PS.8.1.B.3. Construct a flow chart to explain the interactions of components within an ecosystem (e.g., water cycle, oxygen and carbon dioxide exchange, producers, consumers, and decomposers).

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

**STRAND** PS.8.2. Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems

**BENCHMARK** PS.8.2.A. Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to

**EXPECTATION** PS.8.2.A.2. Explain how different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

**STRAND** PS.8.3. Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes

**BENCHMARK** PS.8.3.A. Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to

**EXPECTATION** PS.8.3.A.3. Explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.

**ESSENTIAL ELEMENT** NGS.ES. Environment and Society

**STANDARD** ES.14. How human actions modify the physical environment

**STRAND** ES.14.3. Consequences for People and Environments: The physical environment can both accommodate and be endangered by human activities

**BENCHMARK** ES.14.3.A. Analyze the positive and negative consequences of humans changing the physical environment, as exemplified by being able to

**EXPECTATION** ES.14.3.A.3. Analyze the ways humans can have positive effects on the physical environment (e.g., open green space protection, wetland restoration,
sustainable forestry).

National Geography Standards (NGS)
Science

Grade 7 - Adopted: 2012

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.7. The physical processes that shape the patterns of Earth's surface

STAND PS.7.1. Components of Earth’s Physical Systems: The four components of Earth’s physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere) are interdependent

BENCHMARK PS.7.1.A. Identify and describe patterns in the environment that result from the interaction of Earth’s physical processes, as exemplified by being able to

EXPECTATION PS.7.1.A.2. Identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.7. The physical processes that shape the patterns of Earth's surface

STAND PS.7.2. Earth-Sun Relationships: Earth-Sun relationships drives physical processes that follow an annual cycle and create patterns on Earth

BENCHMARK PS.7.2.A. Explain how Earth-Sun relationships drive Earth’s physical processes and create annual patterns, as exemplified by being able to

EXPECTATION PS.7.2.A.1. Explain the occurrences of weather phenomena in different locations due to annual changes in the Earth-Sun relationship (e.g., hurricanes in the fall in subtropical areas, monsoon rainfall, tornadoes in the mid-latitudes during the spring and summer).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STAND PS.8.1. Components of Ecosystems: Components of ecosystems are interdependent

BENCHMARK PS.8.1.B. Construct a model to explain how an ecosystem works, as exemplified by being able to

EXPECTATION PS.8.1.B.3. Construct a flow chart to explain the interactions of components within an ecosystem (e.g., water cycle, oxygen and carbon dioxide exchange, producers, consumers, and decomposers).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STAND PS.8.2. Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems

BENCHMARK PS.8.2.A. Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to

EXPECTATION PS.8.2.A.2. Explain how different locations can have similar ecosystems as a function
of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.

ESSENTIAL ELEMENT   NGS.PS.   Physical Systems
STANDARD             PS.8.      The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND               PS.8.3.    Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes
BENCHMARK            PS.8.3.A.  Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to
EXPECTATION          PS.8.3.A.3. Explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.

ESSENTIAL ELEMENT   NGS.ES.   Environment and Society
STANDARD             ES.14.     How human actions modify the physical environment
STRAND               ES.14.3.   Consequences for People and Environments: The physical environment can both accommodate and be endangered by human activities
BENCHMARK            ES.14.3.A. Analyze the positive and negative consequences of humans changing the physical environment, as exemplified by being able to
EXPECTATION          ES.14.3.A.3. Analyze the ways humans can have positive effects on the physical environment (e.g., open green space protection, wetland restoration, sustainable forestry).

National Geography Standards (NGS)
Social Studies

Grade 2 - Adopted: 2012

ESSENTIAL ELEMENT   NGS.PR.   Places and Regions
STANDARD             PR.4.      The physical and human characteristics of places
STRAND               PR.4.2.    The Characteristics of Places: Places have physical and human characteristics
BENCHMARK            PR.4.2.A.  Describe and compare the physical characteristics of places at a variety of scales, local to global, as exemplified by being able to
EXPECTATION          PR.4.2.A.3. Describe and compare the physical environments and landforms of different places in the world (e.g., mountains, islands, valleys or canyons, mesas).

ESSENTIAL ELEMENT   NGS.PS.   Physical Systems
STANDARD             PS.7.      The physical processes that shape the patterns of Earth's surface
STRAND               PS.7.1.    Components of Earth’s Physical Systems: There are four components of Earth's physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere)
BENCHMARK            PS.7.1.A.  Identify attributes of Earth's different physical systems, as exemplified by being able to
EXPECTATION          PS.7.1.A.1. Identify different attributes of physical systems in photographs (e.g., sky,
Identify examples of landforms on Earth's surface (e.g., mountains, volcanoes, valleys, plains).

EXPECTATION PS.7.1.A.3.

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STRAND PS.8.1. Components of Ecosystems: The components of ecosystems

BENCHMARK PS.8.1.A. Identify the components of different ecosystems, as exemplified by being able to

EXPECTATION PS.8.1.A.1. Identify the three major components of an ecosystem (i.e., biomass, climate, and soil).

EXPECTATION PS.8.1.A.2. Identify examples of each ecosystem component (e.g., pine trees versus grasslands, low versus high rainfall, clay versus sandy soils).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STRAND PS.8.2. Characteristics and Geographic Distribution of Ecosystems: The characteristics of ecosystems

BENCHMARK PS.8.2.A. Identify and describe the characteristics of ecosystems, as exemplified by being able to

EXPECTATION PS.8.2.A.1. Identify and describe the characteristics of an ecosystem (specific types of plants, climate, and soil) in which a favorite or interesting creature lives.

EXPECTATION PS.8.2.A.2. Compare the characteristics of different ecosystems (e.g., pond, deciduous forest, coral reef).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STRAND PS.8.3. Characteristics and Geographic Distribution of Biomes: The characteristics of biomes

BENCHMARK PS.8.3.A. Describe the characteristics of biomes, as exemplified by being able to

EXPECTATION PS.8.3.A.1. Describe the defining characteristics of a biome as a large region of ecosystems with similar climate and vegetation characteristics.

EXPECTATION PS.8.3.A.2. Describe the temperature, precipitation, and vegetation characteristics of various biomes, (e.g., deserts, grasslands, savannahs, temperate forests, tropical forests, arctic tundra).

EXPECTATION PS.8.3.A.3. Identify the characteristics in photographs of different types of vegetation and match them to the appropriate sections of a world climate map (e.g., cacti and succulents on a desert climate region, tropical forest trees on a tropical climate region, coral in shallow, tropical marine waters).

ESSENTIAL ELEMENT NGS.ES. Environment and Society

STANDARD ES.15. How physical systems affect human systems

STRAND ES.15.1. Environmental Opportunities and Constraints: The physical environment provides opportunities for and imposes constraints on human activities

BENCHMARK ES.15.1.B. Describe examples in which the physical environment imposes constraints on human activities, as exemplified by being able to
EXPECTATION ES.15.1.B.2. Describe examples in which human activities are limited by different types of climates (e.g., cold or polar, rainy or dry, equatorial).

**National Geography Standards (NGS)**

**Social Studies**

**Grade 3 - Adopted: 2012**

**ESSENTIAL ELEMENT** NGS.PR. Places and Regions

**STANDARD** PR.4. The physical and human characteristics of places

**STRAND** PR.4.2. The Characteristics of Places: Places have physical and human characteristics

**BENCHMARK** PR.4.2.A. Describe and compare the physical characteristics of places at a variety of scales, local to global, as exemplified by being able to

**EXPECTATION** PR.4.2.A.3. Describe and compare the physical environments and landforms of different places in the world (e.g., mountains, islands, valleys or canyons, mesas).

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.7. The physical processes that shape the patterns of Earth's surface Components of Earth’s Physical Systems: There are four components of Earth's physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere)

**STRAND** PS.7.1. Components of Ecosystems: The components of ecosystems

**BENCHMARK** PS.7.1.A. Identify attributes of Earth's different physical systems, as exemplified by being able to

**EXPECTATION** PS.7.1.A.1. Identify different attributes of physical systems in photographs (e.g., sky, clouds, plants, soil, oceans, lakes, mountains).

**EXPECTATION** PS.7.1.A.3. Identify examples of landforms on Earth's surface (e.g., mountains, volcanoes, valleys, plains).

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

**STRAND** PS.8.1. Components of Ecosystems: The components of ecosystems

**BENCHMARK** PS.8.1.A. Identify the components of different ecosystems, as exemplified by being able to

**EXPECTATION** PS.8.1.A.1. Identify the three major components of an ecosystem (i.e., biomass, climate, and soil).

**EXPECTATION** PS.8.1.A.2. Identify examples of each ecosystem component (e.g., pine trees versus grasslands, low versus high rainfall, clay versus sandy soils).

**ESSENTIAL ELEMENT** NGS.PS. Physical Systems

**STANDARD** PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

**STRAND** PS.8.2. Characteristics and Geographic Distribution of Ecosystems: The characteristics of ecosystems

**BENCHMARK** PS.8.2.A. Identify and describe the characteristics of ecosystems, as exemplified by being able to

**EXPECTATION** PS.8.2.A.1. Identify and describe the characteristics of an ecosystem (specific types of plants, climate, and soil) in which a favorite or interesting creature lives.
EXPECTATION PS.8.2.A.3. Compare the characteristics of different ecosystems (e.g., pond, deciduous forest, coral reef).

ESSENTIAL ELEMENT NGS.PS. Physical Systems
STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth’s surface
STRAND PS.8.3. Characteristics and Geographic Distribution of Biomes: The characteristics of biomes
BENCHMARK PS.8.3.A. Describe the characteristics of biomes, as exemplified by being able to
EXPECTED PS.8.3.A.1. Describe the defining characteristics of a biome as a large region of ecosystems with similar climate and vegetation characteristics.

EXPECTATION PS.8.3.A.2. Describe the temperature, precipitation, and vegetation characteristics of various biomes, (e.g., deserts, grasslands, savannahs, temperate forests, tropical forests, arctic tundra).

EXPECTATION PS.8.3.A.3. Identify the characteristics in photographs of different types of vegetation and match them to the appropriate sections of a world climate map (e.g., cacti and succulents on a desert climate region, tropical forest trees on a tropical climate region, coral in shallow, tropical marine waters).

ESSENTIAL ELEMENT NGS.ES. Environment and Society
STANDARD ES.15. How physical systems affect human systems
STRAND ES.15.1. Environmental Opportunities and Constraints: The physical environment provides opportunities for and imposes constraints on human activities
BENCHMARK ES.15.1.B. Describe examples in which the physical environment imposes constraints on human activities, as exemplified by being able to
EXPECTED ES.15.1.B.2. Describe examples in which human activities are limited by different types of climates (e.g., cold or polar, rainy or dry, equatorial).

National Geography Standards (NGS)

Social Studies

Grade 4 - Adopted: 2012

ESSENTIAL ELEMENT NGS.PR. Places and Regions
STANDARD PR.4. The physical and human characteristics of places
STRAND PR.4.2. The Characteristics of Places: Places have physical and human characteristics
BENCHMARK PR.4.2.A. Describe and compare the physical characteristics of places at a variety of scales, local to global, as exemplified by being able to
EXPECTED PR.4.2.A.3. Describe and compare the physical environments and landforms of different places in the world (e.g., mountains, islands, valleys or canyons, mesas).

ESSENTIAL ELEMENT NGS.PS. Physical Systems
STANDARD PS.7. The physical processes that shape the patterns of Earth’s surface
STRAND PS.7.1. Components of Earth’s Physical Systems: There are four components of Earth’s physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere)
BENCHMARK PS.7.1.A. Identify attributes of Earth's different physical systems, as exemplified by being able to

EXPECTATION PS.7.1.A.1. Identify different attributes of physical systems in photographs (e.g., sky, clouds, plants, soil, oceans, lakes, mountains).

EXPECTATION PS.7.1.A.3. Identify examples of landforms on Earth's surface (e.g., mountains, volcanoes, valleys, plains).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STRAND PS.8.1. Components of Ecosystems: The components of ecosystems

BENCHMARK PS.8.1.A. Identify the components of different ecosystems, as exemplified by being able to

EXPECTATION PS.8.1.A.1. Identify the three major components of an ecosystem (i.e., biomass, climate, and soil).

EXPECTATION PS.8.1.A.2. Identify examples of each ecosystem component (e.g., pine trees versus grasslands, low versus high rainfall, clay versus sandy soils).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STRAND PS.8.2. Characteristics and Geographic Distribution of Ecosystems: The characteristics of ecosystems

BENCHMARK PS.8.2.A. Identify and describe the characteristics of ecosystems, as exemplified by being able to

EXPECTATION PS.8.2.A.1. Identify and describe the characteristics of an ecosystem (specific types of plants, climate, and soil) in which a favorite or interesting creature lives.

EXPECTATION PS.8.2.A.3. Compare the characteristics of different ecosystems (e.g., pond, deciduous forest, coral reef).

ESSENTIAL ELEMENT NGS.PS. Physical Systems

STANDARD PS.8. The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

STRAND PS.8.3. Characteristics and Geographic Distribution of Biomes: The characteristics of biomes

BENCHMARK PS.8.3.A. Describe the characteristics of biomes, as exemplified by being able to

EXPECTATION PS.8.3.A.1. Describe the defining characteristics of a biome as a large region of ecosystems with similar climate and vegetation characteristics.

EXPECTATION PS.8.3.A.2. Describe the temperature, precipitation, and vegetation characteristics of various biomes, (e.g., deserts, grasslands, savannahs, temperate forests, tropical forests, arctic tundra).

EXPECTATION PS.8.3.A.3. Identify the characteristics in photographs of different types of vegetation and match them to the appropriate sections of a world climate map (e.g., cacti and succulents on a desert climate region, tropical forest trees on a tropical climate region, coral in shallow, tropical marine waters).

ESSENTIAL ELEMENT NGS.ES. Environment and Society

STANDARD ES.15. How physical systems affect human systems
Environmental Opportunities and Constraints: The physical environment provides opportunities for and imposes constraints on human activities.

Describe examples in which the physical environment imposes constraints on human activities, as exemplified by being able to

Describe examples in which human activities are limited by different types of climates (e.g., cold or polar, rainy or dry, equatorial).

National Geography Standards (NGS)
Social Studies

Grade 5 - Adopted: 2012

ESSENTIAL ELEMENT  NGS.PS.  Physical Systems
STANDARD  PS.7.  The physical processes that shape the patterns of Earth’s surface
Components of Earth’s Physical Systems: The four components of Earth’s physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere) are interdependent

BENCHMARK  PS.7.1.A.  Identify and describe patterns in the environment that result from the interaction of Earth’s physical processes, as exemplified by being able to

EXPECTATION  PS.7.1.A.2.  Identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).

ESSENTIAL ELEMENT  NGS.PS.  Physical Systems
STANDARD  PS.8.  The characteristics and spatial distribution of ecosystems and biomes on Earth’s surface

STRAND  PS.8.2. Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems

BENCHMARK  PS.8.2.A.  Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to

EXPECTATION  PS.8.2.A.2.  Explain how different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.

ESSENTIAL ELEMENT  NGS.PS.  Physical Systems
STANDARD  PS.8.  The characteristics and spatial distribution of ecosystems and biomes on Earth’s surface

STRAND  PS.8.3. Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes

BENCHMARK  PS.8.3.A.  Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to

EXPECTATION  PS.8.3.A.3.  Explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.
### Grade 6 - Adopted: 2012

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<td>BENCHMARK PS.7.1.A.</td>
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<td>EXPECTATION PS.7.1.A.2.</td>
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### Grade 7 - Adopted: 2012

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<td>Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to</td>
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<td>EXPECTATION PS.8.2.A.2.</td>
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<td>Explain why different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.</td>
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<td>STRAND PS.8.3.</td>
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<td>Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to</td>
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### National Geography Standards (NGS)  
Social Studies
Identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).

**EXPECTATION**  
PS.7.1.A.2.

**ESSENTIAL ELEMENT**  
NGS.PS. Physical Systems

**STANDARD**  
PS.8.

**STRAND**  
PS.8.2.
Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems

**BENCHMARK**  
PS.8.2.A. 
Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to explain how different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.

**EXPECTATION**  
PS.8.2.A.2.

**ESSENTIAL ELEMENT**  
NGS.PS. Physical Systems

**STANDARD**  
PS.8.

**STRAND**  
PS.8.3.
Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes

**BENCHMARK**  
PS.8.3.A. 
Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.

**EXPECTATION**  
PS.8.3.A.3.

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**Next Generation Science Standards (NGSS)**

**Science**

**Grade 2 - Adopted: 2013**

**STRAND**  
NGSS.2-LS.
**LIFE SCIENCE**

**TITLE**  
2-LS4. Biological Evolution: Unity and Diversity

Students who demonstrate understanding can:

**PERFORMANCE EXPECTATION**  
2-LS4.1. Make observations of plants and animals to compare the diversity of life in different habitats.

**STRAND**  
NGSS.2-ESS.
**EARTH AND SPACE SCIENCE**

**TITLE**  
2-ESS2. Earth’s Systems

Students who demonstrate understanding can:

**PERFORMANCE EXPECTATION**  
2-ESS2.2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.
Grade 3 - Adopted: 2013

STRAND NGSS.3-LS. LIFE SCIENCE
TITLE 3-LS2. Ecosystems: Interactions, Energy, and Dynamics
Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 3-LS2-1. Construct an argument that some animals form groups that help members survive.

STRAND NGSS.3-LS. LIFE SCIENCE
TITLE 3-LS4. Biological Evolution: Unity and Diversity
Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

PERFORMANCE EXPECTATION 3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

PERFORMANCE EXPECTATION 3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

STRAND NGSS.3-ESS. EARTH AND SPACE SCIENCE
TITLE 3-ESS2. Earth’s Systems
Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.

Next Generation Science Standards (NGSS) Science

Grade 4 - Adopted: 2013

STRAND NGSS.4-LS. LIFE SCIENCE
TITLE 4-LS1. From Molecules to Organisms: Structures and Processes
Students who demonstrate understanding can:

PERFORMANCE EXPECTATION 4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

PERFORMANCE EXPECTATION 4-LS1-2. Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

Next Generation Science Standards (NGSS) Science

Grade 5 - Adopted: 2013

STRAND NGSS.5- EARTH AND SPACE SCIENCE
ESS
TITLE 5-ESS3. Earth and Human Activity

Students who demonstrate understanding can:

PERFORMANCE 5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.

Next Generation Science Standards (NGSS)

Science

Grade 6 - Adopted: 2013

STRAND NGSS.MS-LS. LIFE SCIENCE
TITLE MS-LS1. From Molecules to Organisms: Structures and Processes

Students who demonstrate understanding can:

PERFORMANCE MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
PERFORMANCE MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

STRAND NGSS.MS-LS. LIFE SCIENCE
TITLE MS-LS2. Ecosystems: Interactions, Energy, and Dynamics

Students who demonstrate understanding can:

PERFORMANCE MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
PERFORMANCE MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

Next Generation Science Standards (NGSS)

Science

Grade 7 - Adopted: 2013

STRAND NGSS.MS-LS. LIFE SCIENCE
TITLE MS-LS1. From Molecules to Organisms: Structures and Processes

Students who demonstrate understanding can:

PERFORMANCE MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
PERFORMANCE MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

STRAND NGSS.MS-LS. LIFE SCIENCE
TITLE MS-LS2. Ecosystems: Interactions, Energy, and Dynamics

Students who demonstrate understanding can:

PERFORMANCE MS-LS2-2. Construct an explanation that predicts patterns of interactions among
EXPECTATION organisms across multiple ecosystems.
PERFORMANCE Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
EXPECTATION MS-LS2-5.