In this Unit
Our Changing World

Module  Changes to the Environment
Lesson 1  Plants Change Their Environment
Lesson 2  Animals Change Their Environment
Lesson 3  People Change Their Environment

Module  Protect Earth
Lesson 1  Natural Resources
Lesson 2  Reduce, Reuse, Recycle
Performance Expectations at a Glance

In this unit, students will discover and practice the Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts needed to perform the following Performance Expectations.

<table>
<thead>
<tr>
<th>Performance Expectations</th>
<th>MODULE: Changes to the Environment</th>
<th>MODULE: Protect Earth</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-ESS2-2</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>K-ESS3-1</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>K-ESS3-3</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>K-2-ETS1-1</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

Correlations by Module to the NGSS

MODULE: Changes to the Environment

<table>
<thead>
<tr>
<th>K-ESS2</th>
<th>Earth’s Systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>K-ESS2-2</strong></td>
<td>Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. [Clarification Statement: Examples of plants and animals changing their environment could include a squirrel digs in the ground to hide its food and tree roots can break concrete.]</td>
<td>14–15, 16–17, 22–25, 30–31, 36–37, 44–45</td>
</tr>
</tbody>
</table>

SEP Science and Engineering Practices

Engaging in Argument from Evidence
Engaging in argument from evidence in K–2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s).
• Construct an argument with evidence to support a claim. (K-ESS2-2)

DCI Disciplinary Core Ideas

ESS2.E: Biogeology
• Plants and animals can change their environment. (K-ESS2-2)

ESS3.C: Human Impacts on Earth Systems
• Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (secondary to K-ESS2-2)

Inquiry activities are in italics.
### Crosscutting Concepts

**Systems and System Models**
- Systems in the natural and designed world have parts that work together. (K-ESS2-2)

#### Other Correlations

**NGSS Math Connections**
- K.MD.B.3: 5

**ELD Connections**
- PI.K.2: Teacher’s Edition Only: 24, 32, 43
- PI.K.3: Teacher’s Edition Only: 11
- PI.K.5: Teacher’s Edition Only: 18

**CCSS ELA/Literacy Connections**
- RI.K.1: 42–43
- RI.K.2: 42–43
- RI.K.10: 28
- SL.K.5: 18, 21, 28, 32, 35, 48, 50
- L.K.1: 9, 21, 33, 35
  - Teacher’s Edition Only: 13, 28

**ALSO INTEGRATES:**
- CCC Stability and Change: 29, 40–41

Inquiry activities are in italics.
## MODULE: Protect Earth

### K-ESS2 Earth’s Systems

<table>
<thead>
<tr>
<th>K-ESS2</th>
<th>Earth’s Systems</th>
<th></th>
</tr>
</thead>
</table>
| K-ESS2-2 | Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.  
  [Clarification Statement: Examples of plants and animals changing their environment could include a squirrel digs in the ground to hide its food and tree roots can break concrete.] | 60–62, 66 |

### SEP Science and Engineering Practices

**Engaging in Argument from Evidence**

Engaging in argument from evidence in K–2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s).

- Construct an argument with evidence to support a claim. (K-ESS2-2)

### DCI Disciplinary Core Ideas

**ESS2.E: Biogeology**

- Plants and animals can change their environment. (K-ESS2-2)

**ESS3.C: Human Impacts on Earth Systems**

- Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (secondary to K-ESS2-2)

### CCC Crosscutting Concepts

**Systems and System Models**

- Systems in the natural and designed world have parts that work together. (K-ESS2-2)

### K-ESS3 Earth and Human Activity

<table>
<thead>
<tr>
<th>K-ESS3</th>
<th>Earth and Human Activity</th>
<th></th>
</tr>
</thead>
</table>
| K-ESS3-1 | Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.  
  [Clarification Statement: Examples of relationships could include that deer eat buds and leaves, therefore, they usually live in forested areas; and grasses need sunlight so they often grow in meadows. Plants, animals, and their surroundings make up a system.] | Teacher’s Edition Only: 63 |

*Inquiry activities are in italics.*
### Science and Engineering Practices

**Developing and Using Models**

Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, storyboard) that represent concrete events or design solutions.

- Use a model to represent relationships in the natural world. (K-ESS3-1)

**Disciplinary Core Ideas**

**ESS3.A Natural Resources**

- Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)

**Crosscutting Concepts**

**Systems and System Models**

- Systems in the natural and designed world have parts that work together. (K-ESS3-1)

### Disciplinary Core Ideas

**K-ESS3 Earth and Human Activity**

**K-ESS3-3** Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

[Clarification Statement: Examples of human impact on the land could include cutting trees to produce paper and using resources to produce bottles. Examples of solutions could include reusing paper and recycling cans and bottles.]

**Science and Engineering Practices**

**Obtaining, Evaluating, and Communicating Information**

- Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.

- Communicate solutions with others in oral and/or written forms using models and/or drawings that provide detail about scientific ideas. (K-ESS3-3)

**Disciplinary Core Ideas**

**ESS3.C: Human Impacts on Earth Systems**

- Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (K-ESS3-3)

**ETS1.B: Developing Possible Solutions**

- Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem’s solutions to other people. (secondary to K-ESS3-2)
Continued from previous page.

### CCC Crosscutting Concepts

**Cause and Effect**
- Events have causes that generate observable patterns. (K-ESS3-3)  
  60–62, 78–79

<table>
<thead>
<tr>
<th>K-2-ETS1</th>
<th>Engineering Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-2-ETS1-1</td>
<td><strong>Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</strong> 83–84</td>
</tr>
</tbody>
</table>

### SEP Science and Engineering Practices

**Asking Questions and Defining Problems**
Asking questions and defining problems in K–2 builds on prior experiences and progresses to simple descriptive questions.
- Ask questions based on observations to find more information about the natural and/or designed world(s). (K-2-ETS1-1)  
- Define a simple problem that can be solved through the development of a new or improved object or tool.  
  83–84

### DCI Disciplinary Core Ideas

**ETS1.A: Defining and Delimiting Engineering Problems**
- A situation that people want to change or create can be approached as a problem to be solved through engineering. (K–2-ETS1-1)  
- Asking questions, making observations, and gathering information are helpful in thinking about problems. (K–2-ETS1-1)  
- Before beginning to design a solution, it is important to clearly understand the problem. (K–2-ETS1-1)  
  83–84

### Other Correlations

**NGSS Math Connections**
- MD.B.3  
  73  
  Teacher’s Edition Only: 55

*Inquiry activities are in italics.*
Continued from previous page.

<table>
<thead>
<tr>
<th>ELD Connections</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PI.K.2</td>
<td>Teacher’s Edition Only: 68, 72</td>
</tr>
<tr>
<td>PI.K.3</td>
<td>Teacher’s Edition Only: 61</td>
</tr>
<tr>
<td>PI.K.5</td>
<td>Teacher’s Edition Only: 70</td>
</tr>
<tr>
<td>PI.K.6</td>
<td>Teacher’s Edition Only: 82</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCSS ELA/Literacy Connections</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SL.K.2</td>
<td>65</td>
</tr>
<tr>
<td>SL.K.3</td>
<td>59</td>
</tr>
<tr>
<td>SL.K.5</td>
<td>68, 71, 82</td>
</tr>
<tr>
<td>W.K.8</td>
<td>79</td>
</tr>
</tbody>
</table>

**ALSO INTEGRATES:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop and Use Models</td>
<td>83–84</td>
</tr>
<tr>
<td></td>
<td>Teacher’s Edition Only: 63</td>
</tr>
<tr>
<td>SEP Constructing Explanations and Designing Solutions</td>
<td>83–84</td>
</tr>
<tr>
<td>CCC Stability and Change</td>
<td>66</td>
</tr>
</tbody>
</table>

*Inquiry activities are in italics.*