



Teacher's Edition  
Grade 2 • Unit 1

# Inspire Science

Land and Water

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## 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.

Performance Expectations	MODULE: <b>Earth's Landscape</b>
2-ESS2-2	•
2-ESS2-3	•

## Correlations by Module to the **NGSS**

MODULE: <b>Earth's Landscape</b>		
<b>2-ESS2</b>	<b>Earth's Systems</b>	
 <b>2-ESS2-2</b>	<b>Develop a model to represent the shapes and kinds of land and bodies of water in an area.</b> <i>[Assessment Boundary: Assessment does not include quantitative scaling in models.]</i>	14, 16–17, 21, 22, 26–27, 51–52, 62–65 Teacher's Edition Only: 11
<b>SEP Science and Engineering Practices</b>		
<b>Developing and Using Models</b> Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions. • Develop a model to represent patterns in the natural world. (2-ESS2-2)		9, 12–13, 14, 16–17, 21, 22, 26–27, 29, 31, 39, 44–46, 51–52, 60–61, 62–65 Teacher's Edition Only: 20
<b>DCI Disciplinary Core Ideas</b>		
<b>ESS2.B: Plate Tectonics and Large-Scale System Interactions</b> • Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2)		5, 11–13, 16–17, 18–19, 21, 22, 24, 26–27, 28–29, 31, 44–46, 57, 59–61, 62–65
<b>CCC Crosscutting Concepts</b>		
<b>Patterns</b> • Patterns in the natural world can be observed. (2-ESS2-2)		13, 31, 35 Teacher's Edition Only: 9, 10, 17, 20, 27, 29, 39

Inquiry activities are in italics.

2-ESS2		Earth's Systems
 2-ESS2-3	Obtain information to identify where water is found on Earth and that it can be solid or liquid.	44–47, 48–50, 53
<b>SEP Science and Engineering Practices</b>		
<b>Obtaining, Evaluating, and Communicating Information</b> Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information. • Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question. (2-ESS2-3)		44–47, 48–49, 50, 51–52, 53, 55, 57, 51–52, 58, 61, 62–65
<b>DCI Disciplinary Core Ideas</b>		
<b>ESS2.C: The Roles of Water in Earth's Surface Processes</b> • Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)		44–47, 48–49, 50, 51–52, 53, 54, 56, 57, 58, 60, 62–65
<b>CCC Crosscutting Concepts</b>		
<b>Patterns</b> • Patterns in the natural world can be observed. (2-ESS2-3)		50 Teacher's Edition <i>Only</i> : 46, 52, 56

Other Correlations	
<b>CCSS Math Connections</b>	
2.MD.10	33
2.G.1	14
2.G.2	33, 44
<b>History-Social Science Content Connections</b>	
K.4.4	11
1.2.3	12, 16, 53
2.2.1	15
<b>ELD Connections</b>	
ELD.PI.2.6	Teacher's Edition <i>Only</i> : 11, 20, 29, 45, 64
ELD.PI.2.10	Teacher's Edition <i>Only</i> : 38, 56

Inquiry activities are in italics.

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CCSS ELA/Literacy Connections	
W.2.2	55
W.2.7	53
W.2.8	Teacher's Edition <i>Only</i> : 37
W.2.10	Teacher's Edition <i>Only</i> : 30
SL.2.2	15
SL.2.4e	Teacher's Edition <i>Only</i> : 37
ALSO INTEGRATES:	
SEP Analyzing and Interpreting Data	9, 32–33, 44–46, 52
SEP Engaging in Argument from Evidence	47
SEP Obtaining, Evaluating, and Communicating Information	10–13, 18–19, 28–31, 38, 40, 48–50, 53, 58 Teacher's Edition <i>Only</i> : 46, 52
SEP Planning and Carrying Out Investigations	8–9, 16–17, 26–27, 32–33, 37, 44–46, 51–52, 53, 62–65
SEP Using Mathematics and Computational Thinking	44–46
CCC Scale, Proportion, and Quantity	32–33, 44–47, 48
CCC Systems and System Models	49, 53
Environmental Principle II Concept a	Teacher's Edition <i>Only</i> : 3
HSS 2.5	18

Inquiry activities are in italics.



Teacher's Edition  
Grade 2 • Unit 2

# Inspire Science

Properties of Materials

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## 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.


Performance Expectations	MODULE: Describe Materials	MODULE: Changes to Materials
2-PS1-1	•	
2-PS1-2	•	
2-PS1-3		•
2-PS1-4		•
<b>K–2-ETS1-3</b>	•	•

## Correlations by Module to the NGSS

MODULE: Describe Materials		
<b>2-PS1</b>	<b>Matter and Its Interactions</b>	
 <b>2-PS1-1</b>	<b>Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.</b> <i>[Clarification Statement: Observations could include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.]</i>	8–10, 16–17, 22–23
<b>SEP Science and Engineering Practices</b>		
<b>Planning and Carrying Out Investigations</b> Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. • Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. (2-PS1-1)		8–10, 16–17, 22–23, 26
<b>DCI Disciplinary Core Ideas</b>		
<b>PS1.A: Structure and Properties of Matter</b> • Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. (2-PS1-1)		5, 7, 8–10, 11, 12–15, 16–17, 18–19, 20, 21, 22–23, 24, 25, 26
<b>CCC Crosscutting Concepts</b>		
<b>Patterns</b> • Patterns in the natural and human designed world can be observed. (2-PS1-1)		12, 17, 25 Teacher’s Edition Only: 10, 14, 23

*Inquiry activities are in italics.*

2-PS1	Matter and Its Interactions	
 <b>2-PS1-2</b>	<p><b>Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.*</b></p> <p><i>[Clarification Statement: Examples of properties could include strength, flexibility, hardness, texture, and absorbency.] [Assessment Boundary: Assessment of quantitative measurements is limited to length.]</i></p>	30–31, 36–37, 38–40
<b>SEP Science and Engineering Practices</b>		
<p><b>Analyzing and Interpreting Data</b></p> <p>Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.</p> <ul style="list-style-type: none"> <li>Analyze data from tests of an object or tool to determine if it works as intended. (2-PS1-2)</li> </ul>		30–31, 36–37, 38–40, 47, 52–54 Teacher's Edition Only: 35
<b>DCI Disciplinary Core Ideas</b>		
<p><b>PS1.A: Structure and Properties of Matter</b></p> <ul style="list-style-type: none"> <li>Different properties are suited to different purposes. (2-PS1-2)</li> </ul>		27, 30–31, 32–35, 36–37, 39–40, 42–43, 46, 47, 48, 49–50, 52–54, 55, 98
<b>CCC Crosscutting Concepts</b>		
<p><b>Cause and Effect</b></p> <ul style="list-style-type: none"> <li>Simple tests can be designed to gather evidence to support or refute student ideas about causes. (2-PS1-2)</li> </ul>		33, 40, 47 Teacher's Edition Only: 31, 32, 34, 36, 39–40
<p><b>Connections to Engineering, Technology, and Applications of Science</b></p> <p><b>Influence of Engineering, Technology, and Science on Society and the Natural World</b></p> <ul style="list-style-type: none"> <li>Every human-made product is designed by applying some knowledge of the natural world and is built by using natural materials. (2-PS1-2)</li> </ul>		Teacher's Edition Only: 50

2-PS1	Matter and Its Interactions	
 <b>K–2-ETS1-3</b>	<p><b>Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</b></p>	30–31, 38–40, 52–54
<b>SEP Science and Engineering Practices</b>		
<p><b>Analyzing and Interpreting Data</b></p> <p>Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.</p> <ul style="list-style-type: none"> <li>Analyze data from tests of an object or tool to determine if it works as intended. (K–2-ETS1-3)</li> </ul>		30–31, 36–37, 38–40, 52–54

*Inquiry activities are in italics.*

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## DCI Disciplinary Core Ideas

### ETS1.C: Optimizing the Design Solution

- Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K–2-ETS1-3)

30–31, 38–40, 47, 52–54

## Other Correlations

### ELD Connections

ELD.PI.2.6

Teacher's Edition *Only*: 19, 31

ELD.PI.2.10

Teacher's Edition *Only*: 24, 53

ELD.PI.2.11

Teacher's Edition *Only*: 19, 46

ELD.PII.2.5

Teacher's Edition *Only*: 9

### CCSS ELA/Literacy Connections

RI.2.3

45, 72, 93

RI.2.8

18–19, 42, 90  
Teacher's Edition *Only*: 45

W.2.1

Teacher's Edition *Only*: 19

W.2.8

93  
Teacher's Edition *Only*: 15

L.2.6

12–13, 33  
Teacher's Edition *Only*: 23

### ALSO INTEGRATES:

SEP Asking Questions and Defining Problems

16, 26, 30, 38

SEP Analyzing and Interpreting Data

8–10, 16–17, 23

SEP Developing and Using Models

30–31, 39, 51, 52–54

*Inquiry activities are in italics.*





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SEP Constructing Explanations and Designing Solutions	38–39
SEP Obtaining, Evaluating, and Communicating Information	12–15, 18–19, 21, 32–35, 42–43, 44–45, 50, 52–54
SEP Planning and Carrying Out Investigations	30–31, 36–37, 38–40, 52–54
SEP Engaging in Argument from Evidence	11
DCI ETS1.B: Developing Possible Solutions	38, 51
CCC Energy and Matter: Flows, Cycles, and Conservation	42–43
CCC Patterns	Teacher’s Edition <i>Only</i> : 37
CCC Structure and Function	35
ELA W.2.10	45

*Inquiry activities are in italics.*

## MODULE: Changes to Materials


2-PS1	Matter and Its Interactions	
 2-PS1-3	<p><b>Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.</b></p> <p><i>[Clarification Statement: Examples of pieces could include blocks, building bricks, or other assorted small objects.]</i></p>	63–64, 69–70, 72, 73, 75
<b>SEP Science and Engineering Practices</b>		
<p><b>Constructing Explanations and Designing Solutions</b></p> <p>Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</p> <ul style="list-style-type: none"> <li>• Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (2-PS1-3)</li> </ul>		63–64, 65, 66–67, 69–70, 72, 73, 75
<b>DCI Disciplinary Core Ideas</b>		
<p><b>PS1.A: Structure and Properties of Matter</b></p> <ul style="list-style-type: none"> <li>• Different properties are suited to different purposes. (2-PS1-3)</li> <li>• A great variety of objects can be built up from a small set of pieces. (2-PS1-3)</li> </ul>		62–64, 65, 69–70, 72, 73, 75, 76, 97–98, 103
<b>CCC Crosscutting Concepts</b>		
<p><b>Energy and Matter</b></p> <ul style="list-style-type: none"> <li>• Objects may break into smaller pieces and be put together into larger pieces, or change shapes. (2-PS1-3)</li> </ul>		59, 62–64, 65, 66–67, 69–70, 72, 73, 75

2-PS1	Matter and Its Interactions	
 2-PS1-4	<p><b>Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.</b></p> <p><i>[Clarification Statement: Examples of reversible changes could include materials such as water and butter at different temperatures. Examples of irreversible changes could include cooking an egg, freezing a plant leaf, and heating paper.]</i></p>	80–82, 83, 85, 88, 89, 95, 96

*Inquiry activities are in italics.*

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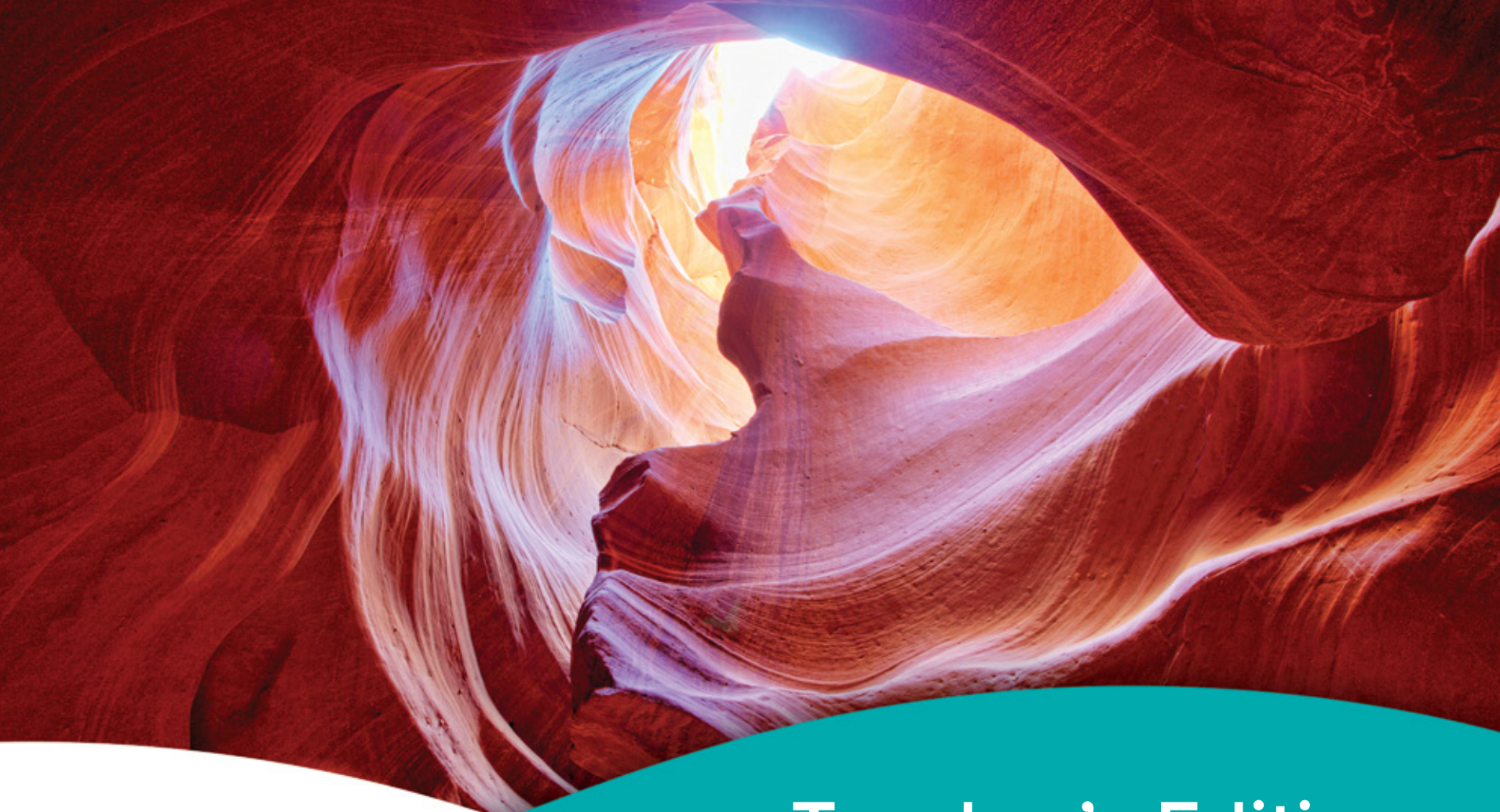
<b>SEP Science and Engineering Practices</b>	
<b>Engaging in Argument from Evidence</b> <ul style="list-style-type: none"> <li>Engaging in argument from evidence in K–2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s).</li> <li>Construct an argument with evidence to support a claim.</li> </ul>	82, 83, 85, 88, 89, 95, 96 Teacher’s Edition <i>Only</i> : 87
<b>Connections to Nature of Science</b> <b>Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena</b> <ul style="list-style-type: none"> <li>Science searches for cause and effect relationships to explain natural events.</li> </ul>	82, 95 Teacher’s Edition <i>Only</i> : 92, 101
<b>DCI Disciplinary Core Ideas</b>	
<b>PS1.B: Chemical Reactions</b> <ul style="list-style-type: none"> <li>Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not. (2-PS1-4)</li> </ul>	77, 79, 80–82, 83, 84–85, 86–88, 89, 94, 95, 96, 98, 103
<b>CCC Crosscutting Concepts</b>	
<b>Cause and Effect</b> <ul style="list-style-type: none"> <li>Events have causes that generate observable patterns. (2-PS1-4)</li> </ul>	85, 88, 95 Teacher’s Edition <i>Only</i> : 81, 87, 92

<b>2-PS1</b>	<b>Matter and Its Interactions</b>	
 <b>K–2-ETS1-3</b>	<b>Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</b>	<i>100–102</i>
<b>SEP Science and Engineering Practices</b>		
	<b>Analyzing and Interpreting Data</b> Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations. <ul style="list-style-type: none"> <li>Analyze data from tests of an object or tool to determine if it works as intended. (K–2-ETS1-3)</li> </ul>	<i>100–102</i>
<b>DCI Disciplinary Core Ideas</b>		
	<b>ETS1.C: Optimizing the Design Solution</b> <ul style="list-style-type: none"> <li>Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K–2-ETS1-3)</li> </ul>	<i>100–102</i>

*Inquiry activities are in italics.*

Other Correlations	
<b>ELD Connections</b>	
ELD.PI. 2.6	Teacher's Edition <i>Only</i> : 85
ELD.PI.2.10	Teacher's Edition <i>Only</i> : 73, 81
ELD.PI.2.11	Teacher's Edition <i>Only</i> : 65
ELD.PII.2.5	Teacher's Edition <i>Only</i> : 75, 101
<b>CCSS ELA/Literacy Connections</b>	
RI.2.3	93 Teacher's Edition <i>Only</i> : 72
RI.2.8	90–91
W.2.8	93
L.2.6	Teacher's Edition <i>Only</i> : 70, 80
<b>ALSO INTEGRATES:</b>	
SEP Analyzing and Interpreting Data	69–70, 82, 88, 101–102
SEP Asking Questions and Defining Problems	96
SEP Constructing Explanations and Designing Solutions	100–102 Teacher's Edition <i>Only</i> : 99
SEP Engaging in Argument from Evidence	70, 73
SEP Obtaining, Evaluating, and Communicating Information	84–85, 89, 90–91, 92, 93, 99
SEP Planning and Carrying Out Investigations	62–64, 69–70, 80–82, 86–88, 100–102
W.2.10	73

*Inquiry activities are in italics.*



Teacher's Edition  
Grade 2 • Unit 3

  
**Inspire**  
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Earth's Changing Landscape

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## 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.

Performance Expectations	MODULE: <b>Landscape Changes</b>
2-ESS1-1	●
2-ESS2-1	●
K–2-ETS1-2	●

## Correlations by Module to the **NGSS**


MODULE: <b>Landscape Changes</b>		
<b>2-ESS1</b>	<b>Earth's Place in the Universe</b>	
 <b>2-ESS1-1</b>	<p><b>Use information from several sources to provide evidence that Earth events can occur quickly or slowly.</b></p> <p><i>[Clarification Statement: Examples of events and timescales could include volcanic explosions and earthquakes, which happen quickly and erosion of rocks, which occurs slowly.] [Assessment Boundary: Assessment does not include quantitative measurements of timescales.]</i></p>	<p>12–13, 17, 18–19, 20–21, 22, 25, 27, 28, 34, 35, 43, 44–45, 49</p> <p>Teacher's Edition Only: 37</p>
<b>SEP Science and Engineering Practices</b>		
<p><b>Constructing Explanations and Designing Solutions</b></p> <p>Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</p> <ul style="list-style-type: none"> <li>• Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (2-ESS1-1)</li> </ul>		<p>8–10, 11, 12–13, 14–17, 18–19, 20–21, 22, 25, 26, 27, 28, 33–34, 35, 36–39, 40–41, 43, 44–45, 48, 49</p>
<b>DCI Disciplinary Core Ideas</b>		
<p><b>ESS1.C: The History of Planet Earth</b></p> <ul style="list-style-type: none"> <li>• Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (2-ESS1-1)</li> </ul>		<p>10, 12–13, 17, 18–19, 20–21, 22, 25, 27, 28, 29, 31, 32–34, 35, 36–39, 40–41, 42–43, 44–45, 47, 48, 49, 67–68</p>

*Inquiry activities are in italics.*

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2-ESS2		Earth's Systems	
<b>CCC Crosscutting Concepts</b>			
<b>Stability and Change</b>			10, 13, 25, 34, 35, 36–39, 41, 49
• Things may change slowly or rapidly. (2-ESS1-1)			Teacher's Edition Only: 16, 33
 <b>2-ESS2-1</b>	<b>Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.*</b>		58–59, 60–61, 72
	<i>[Clarification Statement: Examples of solutions could include different designs of dikes and windbreaks to hold back wind and water, and different designs for using shrubs, grass, and trees to hold back the land.]</i>		Teacher's Edition Only: 57
<b>SEP Science and Engineering Practices</b>			
<b>Constructing Explanations and Designing Solutions</b>			54–55, 58–59, 60–61, 72
Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.			Teacher's Edition Only: 57
• Compare multiple solutions to a problem. (2-ESS2-1)			
<b>DCI Disciplinary Core Ideas</b>			
<b>ESS2.A: Earth Materials and Systems</b>			51, 54–55, 56–57, 60–61, 64, 66, 73
• Wind and water can change the shape of the land. (2-ESS2-1)			
<b>ETS1.C: Optimizing the Design Solution</b>			55, 58–59, 71–72
• Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (secondary to 2-ESS2-1)			
<b>CCC Crosscutting Concepts</b>			
<b>Stability and Change</b>			Teacher's Edition Only: 55, 61
• Things may change slowly or rapidly. (2-ESS2-1)			
<b>Connections to Nature of Science</b>			Teacher's Edition Only: 59, 68
<b>Science Addresses Questions About the Natural and Material World</b>			
• Scientists study the natural and material world. (2-ESS2-1)			
<b>Connections to Engineering, Technology, and Applications of Science</b>			Teacher's Edition Only: 68
<b>Influence of Engineering, Technology, and Science on Society and the Natural World</b>			
• Developing and using technology has impacts on the natural world. (2-ESS2-1)			

*Inquiry activities are in italics.*

K–2	Engineering Design	
 <b>K–2-ETS1-2</b>	<b>Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</b>	54–55, 58–59, 60–61, 65, 69
<b>SEP Science and Engineering Practices</b>		
<b>Developing and Using Models</b> Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions. • Develop a simple model based on evidence to represent a proposed object or tool. (K–2-ETS1-2)		54–55, 58–59, 60–61, 69, 70–72
<b>DCI Disciplinary Core Ideas</b>		
<b>ETS1.B: Developing Possible Solutions</b> • 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. (K–2-ETS1-2)		54–55, 58–59, 60–61, 69, 70–72
<b>CCC Crosscutting Concepts</b>		
<b>Structure and Function</b> • The shape and stability of structures of natural and designed objects are related to their function(s). (K–2-ETS1-2)		58–59 Teacher’s Edition <i>Only</i> : 52, 55, 65, 69

Other Correlations		
<b>ELD Connections</b>		
ELD.PI.2.6	Teacher’s Edition <i>Only</i> : 23, 42, 57	
ELD.PI.2.11	Teacher’s Edition <i>Only</i> : 48, 64	
<b>CCSS ELA/Literacy Connections</b>		
RI.2.1	Teacher’s Edition <i>Only</i> : 22	
RI.2.3	Teacher’s Edition <i>Only</i> : 38	

*Inquiry activities are in italics.*



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<b>ALSO INTEGRATES:</b>	
SEP Analyzing and Interpreting Data	<i>8–10, 17, 25, 41, 55, 59, 61</i>
SEP Asking Questions and Defining Problems	28
SEP Developing and Using Models	<i>14–17, 24–25, 32–34, 40–41</i>
SEP Engaging in Argument from Evidence	11, <i>20–21, 35</i>
SEP Obtaining, Evaluating, and Communicating Information	<i>12–13, 18–19, 20–21, 23, 36–39, 42–43, 44–45, 50, 56–57, 69</i>
SEP Planning and Carrying Out Investigations	<i>8–10, 14–17, 20–21, 24–25, 28, 32–34, 40–41, 44–45, 54–55, 58–59, 60–61, 70–72</i>
DCI PS1.A: Structure and Properties of Matter	55
CCC Cause and Effect	21, 37, 38, 49, 54 <i>Teacher’s Edition Only: 15, 33, 47</i>
ELD.PI.2.1	<i>Teacher’s Edition Only: 10, 71</i>
ELA W.2.2	63
W.2.7	45
ELA W.2.8	47 <i>Teacher’s Edition Only: 17</i>
ELA W.2.11	21
Math 2.OA.1	58

*Inquiry activities are in italics.*



Teacher's Edition  
Grade 2 • Unit 4

# Inspire Science

Living Things and Habitats

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## 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.


Performance Expectations	MODULE: Plants in Landscapes	MODULE: Living Things in Habitats
2-LS2-1	●	
2-LS2-2	●	
K-2-ETS1-1	●	
2-LS4-1		●

## Correlations by Module to the NGSS

MODULE: Plants in Landscapes		
<b>2-LS2</b>	<b>Ecosystems: Interactions, Energy, and Dynamics</b>	
 <b>2-LS2-1</b>	<b>Plan and conduct an investigation to determine if plants need sunlight and water to grow.</b> <i>[Assessment Boundary: Assessment is limited to testing one variable at a time.]</i>	8–10, 14–15, 18–19
<b>SEP Science and Engineering Practices</b>		
<b>Planning and Carrying Out Investigations</b> Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. • Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. (2-LS2-1)		8–10, 14–15, 18–19, 22, 25
<b>DCI Disciplinary Core Ideas</b>		
<b>LS2.A: Interdependent Relationships in Ecosystems</b> • Plants depend on water and light to grow. (2-LS2-1)		5, 8–10, 11, 12–13, 14–15, 16, 18–19, 20, 24, 25, 47 Teacher's Edition Only: 21
<b>CCC Crosscutting Concepts</b>		
<b>Cause and Effect</b> • Events have causes that generate observable patterns. (2-LS2-1)		Teacher's Edition Only: 10, 15, 17, 23, 25

*Inquiry activities are in italics.*

2-LS2		Ecosystems: Interactions, Energy, and Dynamics
 2-LS2-2	Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.*	41–43, 49, 50–52
<b>SEP Science and Engineering Practices</b>		
<b>Developing and Using Models</b> Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions. • Develop a simple model based on evidence to represent a proposed object or tool. (2-LS2-2)		41–43, 49, 50–52
<b>DCI Disciplinary Core Ideas</b>		
<b>LS2.A: Interdependent Relationships in Ecosystems</b> • Plants depend on animals for pollination or to move their seeds around. (2-LS2-2)		27, 29, 33, 34–35, 38–39, 40, 41–43, 44, 45, 46, 48–49, 50–52 <i>Teacher’s Edition Only: 37</i>
<b>ETS1.B: Developing Possible Solutions</b> • 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 2-LS2-2)		49
<b>CCC Crosscutting Concepts</b>		
<b>Structure and Function</b> • The shape and stability of structures of natural and designed objects are related to their function(s). (2-LS2-2)		35, 45, 49 <i>Teacher’s Edition Only: 31, 42</i>

K–2		Engineering Design
 K–2-ETS1-1	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.	47–48, 50–52
<b>SEP Science and Engineering Practices</b>		
<b>Asking Questions and Defining Problems</b> 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. (K–2-ETS1-1)		47–48 <i>Teacher’s Edition Only: 50</i>

*Inquiry activities are in italics.*

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<b>DCI Disciplinary Core Ideas</b>	
<p><b>ETS1.A: Defining and Delimiting Engineering Problems</b></p> <ul style="list-style-type: none"> <li>• A situation that people want to change or create can be approached as a problem to be solved through engineering. (K–2-ETS1-1)</li> <li>• Asking questions, making observations, and gathering information are helpful in thinking about problems. (K–2-ETS1-1)</li> <li>• Before beginning to design a solution, it is important to clearly understand the problem. (K–2-ETS1-1)</li> </ul>	<p>47–48 Teacher’s Edition <i>Only</i>: 50</p>
<b>Other Correlations</b>	
<b>ELD Connections</b>	
ELD.PI.2.2	Teacher’s Edition <i>Only</i> : 24
ELD.PI.2.6	Teacher’s Edition <i>Only</i> : 13, 33
ELD.PII.2.6	Teacher’s Edition <i>Only</i> : 31
<b>CCSS ELA/Literacy Connections</b>	
W.2.3	Teacher’s Edition <i>Only</i> : 35
W.2.4	23
W.2.10	Teacher’s Edition <i>Only</i> : 43
<b>ALSO INTEGRATES:</b>	
SEP Analyzing and Interpreting Data	<i>10, 15, 19, 25, 35, 43</i>
SEP Asking Questions and Defining Problems	46
SEP Developing and Using Models	42-43 Teacher’s Edition <i>Only</i> : 31, 37
SEP Engaging in Argument from Evidence	11 Teacher’s Edition <i>Only</i> : 10
SEP Obtaining, Evaluating, and Communicating Information	12–13, 16, 17, 22–23, 26, 32–33, 36–37, 38–39
SEP Planning and Carrying Out Investigations	30–31, 36–37, 41–43, 46
ELD.PI.2.1	Teacher’s Edition <i>Only</i> : 9

*Inquiry activities are in italics.*

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CCC Structure and Function	Teacher's Edition <i>Only</i> : 13
ELA RI.2.8	38–39
CCSS Math 2.NBT.5	35

## MODULE: Living Things in Habitats

2-LS4	Biological Evolution: Unity and Diversity	
 <b>2-LS4-1</b>	<b>Make observations of plants and animals to compare the diversity of life in different habitats.</b> <i>[Clarification Statement: Emphasis is on the diversity of living things in each of a variety of different habitats.] [Assessment Boundary: Assessment does not include specific animal and plant names in specific habitats.]</i>	55, 60–61, 62–65, 66–67, 70, 72, 78–81, 82–83, 86, 87, 94–96, 118
<b>SEP Science and Engineering Practices</b>		
<b>Planning and Carrying Out Investigations</b> Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. <ul style="list-style-type: none"> <li>• Make observations (firsthand or from media) to collect data, which can be used to make comparisons. (2-LS4-1)</li> </ul>		60–61, 66–67, 72, 76–77, 82–83, 86, 87, 89, 94–96, 102–103, 106–107, 111, 116–118  Teacher's Edition <i>Only</i> : 64
<b>Connections to Nature of Science</b> <b>Scientific Knowledge is Based on Empirical Evidence</b> Scientists look for patterns and order when making observations about the world. (2-LS4-1)		Teacher's Edition <i>Only</i> : 63, 71, 72, 79, 85, 118
<b>DCI Disciplinary Core Ideas</b>		
<b>LS4.D: Biodiversity and Humans</b> <ul style="list-style-type: none"> <li>• There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)</li> </ul>		57, 60–61, 62–65, 66–67, 68–69, 71, 72, 73, 75, 78–81, 82–83, 84–85, 86, 87, 89, 93, 94–96, 97, 98–101, 103, 104–105, 110, 111, 113–114, 119

*Inquiry activities are in italics.*

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<b>Other Correlations</b>	
<b>ELD Connections</b>	
ELD.PI. 2.2	Teacher's Edition <i>Only</i> : 108
ELD.PI.2.6	Teacher's Edition <i>Only</i> : 63, 69, 79
ELD.PII.2.6	Teacher's Edition <i>Only</i> : 88
<b>CCSS ELA/Literacy Connections</b>	
W.2.2	86
W.2.7	69
W.2.8	109
W.2.10	Teacher's Edition <i>Only</i> : 101
<b>ALSO INTEGRATES:</b>	
SEP Analyzing and Interpreting Data	<i>61, 83, 95–96, 103, 107</i>
SEP Asking Questions and Defining Problems	72
SEP Constructing Explanations and Designing Solutions	65, 71, 89
SEP Developing and Using Models	<i>76–77, 116–118</i>
SEP Engaging in Argument from Evidence	97, 103 Teacher's Edition <i>Only</i> : 109
SEP Obtaining, Evaluating, and Communicating Information	62–65, 66–67, 68–69, 72, 78–81, 84–85, 98–101, 104–105, 108–109, 115
DCI LS2.A: Interdependent Relationships in Ecosystems	86, 104–105 Teacher's Edition <i>Only</i> : 99, 108, 110
CCC Cause and Effect	81, 86, <i>106–107</i>  Teacher's Edition <i>Only</i> : 79, 108
CCC Patterns	111 Teacher's Edition <i>Only</i> : 83, 95, 101
CCC Scale, Proportion, and Quantity	61 Teacher's Edition <i>Only</i> : 64

*Inquiry activities are in italics.*

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CCC Structure and Function	Teacher's Edition <i>Only</i> : 99
CCC Systems and System Models	Teacher's Edition <i>Only</i> : 63, 65, 99
ELD.PI.2.1	Teacher's Edition <i>Only</i> : 117
ELD.PI.2.11	Teacher's Edition <i>Only</i> : 70
ELD.PII.2.3	Teacher's Edition <i>Only</i> : 77
ELA RI.2.8	104–105

*Inquiry activities are in italics.*