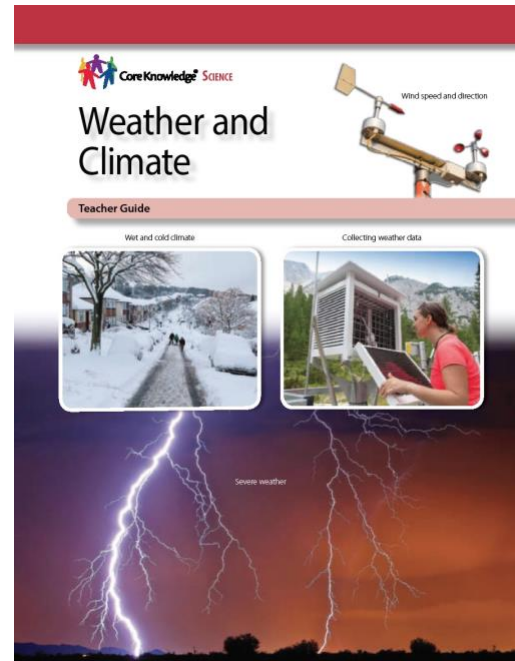


## Weather and Climate

Click on each lesson to access its online resources. Page numbers refer to pages in the Teacher Guide. Some links provide access to files created by the Core Knowledge Foundation, including PDF documents that you can download and view with the appropriate software (such as [Adobe Reader](#)).

	<a href="#">About This Unit</a>
Part A	<a href="#">Lesson 1</a>
	<a href="#">Lesson 2</a>
	<a href="#">Lesson 3</a>
Part B	<a href="#">Lesson 4</a>
	<a href="#">Lesson 5</a>
	<a href="#">Lesson 6</a>
Part C	<a href="#">Lesson 7</a>
	<a href="#">Lesson 8</a>
	<a href="#">Lesson 9</a>
	<a href="#">Lesson 10</a>
Part D	<a href="#">Lesson 11</a>
	<a href="#">Lesson 12</a>
	<a href="#">Lesson 13</a>
Unit Review & Assessment	<a href="#">UR Lesson</a>
	<a href="#">Culminating Resources</a>
	<a href="#">Teacher Resources</a>



## About This Unit

Page	Resource Links
1	<p>Note to Teachers and Curriculum Planners</p> <ul style="list-style-type: none"> <li>The learning progressions of Disciplinary Core Ideas offer guidance regarding the scope and sequence of learning about Weather and Climate in the elementary grades and beyond.</li> <li>Learn more about these core ideas and their related content by reading the corresponding section of <a href="#">A Framework for K-12 Science Education</a>.</li> </ul> <p>See also the <a href="#">Teachers Resources</a> section of this guide.</p>
2	<p>Notes to Core Knowledge Teachers: 2019 Core Knowledge Science Sequence for this unit: Domain—<a href="#">Weather and Climate</a> CKSci correlations to the 2010 Core Knowledge Sequence—</p> <ul style="list-style-type: none"> <li><a href="#">GRADE 3</a></li> <li><a href="#">GRADE 4</a></li> <li><a href="#">GRADE 5</a></li> </ul>
3	<p>This unit has been informed by the following Next Generation Science Standards (NGSS) Performance Expectations: Topic—<a href="#">3. Weather and Climate</a></p> <ul style="list-style-type: none"> <li><a href="#">3-ESS2-1</a></li> <li><a href="#">3-ESS2-2</a></li> <li><a href="#">3-ESS3-1</a>*</li> </ul> <p><i>* Expectations that integrate engineering design practices and knowledge are note above with an asterisk.</i></p>
10	<a href="#">Resources for Effective and Safe Classroom Activities</a>
11	<a href="#">Materials Supply List: Grade 3 Unit 4 Weather and Climate</a>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Part A: Earth's Atmosphere

### Lesson 1

Page	Resource Links
18	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 89–91</a></li> </ul>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 2

Page	Resource Links
24	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 61–63</a></li> </ul>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 3

Page	Resource Links
30	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 61–63</a></li> </ul>

[← Table of Contents](#)

[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Part B: Wind: The Movement of Air

### Lesson 4

Page	Resource Links
35	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>:  <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>:  <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>:  <a href="#">Page 61–63</a></li> </ul>
38	[VIDEO] <a href="#">Hot-air balloons</a>
	[IMAGES] <a href="#">Kitesurfing</a>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 5

Page	Resource Links
40	Performance Expectation: <ul style="list-style-type: none"> <li>• <a href="#">3-ESS2-1</a></li> <li>• <a href="#">Evidence Statements</a> for 3-ESS2-1</li> </ul>
	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 61–63</a></li> </ul>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 6

Page	Resource Links
45	Performance Expectation: <ul style="list-style-type: none"> <li>• <a href="#">3-ESS2-1</a></li> <li>• <a href="#">Evidence Statements</a> for 3-ESS2-1</li> </ul>
	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 61–63</a></li> </ul>
47	[WEBLINK] <a href="#">National Weather Service</a>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).



## Part C: Weather and Climate

### Lesson 7

Page	Resource Links
51	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 61–63</a></li> </ul>
52	[VIDEO] <a href="#">Meteorologist kids</a>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 8

Page	Resource Links
57	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Developing and Using Models</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 56–59</a></li> </ul>
58	[WEBLINK] <a href="#">Alaska seasons</a>
62	[IMAGES] <a href="#">Glacial erratics</a>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 9

Page	Resource Links
65	Performance Expectation: <ul style="list-style-type: none"> <li>• <a href="#">3-ESS2-1</a></li> <li>• <a href="#">Evidence Statements</a> for 3-ESS2-1</li> </ul>
	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 61–63</a></li> </ul>
67, 69	[WEBLINK] <a href="#">NOAA tools</a>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 10

Page	Resource Links
71	Performance Expectation: <ul style="list-style-type: none"> <li>• <a href="#">3-ESS2-2</a></li> <li>• <a href="#">Evidence Statements</a> for 3-ESS2-2</li> </ul>
	Disciplinary Core Idea: ESS2.D <i>Weather and Climate</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Pages 186–189</a></li> </ul>
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 85–87</a></li> </ul>
	Science and Engineering Practices: <i>Obtaining, Evaluating, and Communicating Information</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 74–77</a></li> </ul>
76	[IMAGES] World national parks <a href="#">Uluru-Kata Tjuta National Park, Australia</a> <a href="#">Northeast Greenland National Park, Greenland</a> <a href="#">Serengeti National Park, Tanzania</a> <a href="#">Pantanal Matogrossense National Park, Brazil</a> <a href="#">Grand Canyon National Park, Arizona US</a> <a href="#">Denali National Park, Alaska, US</a> <a href="#">Black Forest National Park, Germany</a> <a href="#">Namib-Naukluft National Park, Namibia</a> <a href="#">Galapagos National Park, Ecuador</a> <a href="#">Komodo National Park, Indonesia</a>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Part D: Reducing Hazardous Impacts of Weather

### Lesson 11

Page	Resource Links
80	Disciplinary Core Idea: ESS3.B <i>Natural Hazards</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Pages 192–184</a></li> </ul>
	Crosscutting Concept: <i>Cause and Effect</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Page 87–89</a></li> </ul>
	Science and Engineering Practices: <i>Engaging in Argument from Evidence</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>: <a href="#">Bottom of pg. 71–74</a></li> </ul>
84	[VIDEO] Extreme weather <a href="#">Hurricane</a> <a href="#">Tornado</a>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 12

Page	Resource Links
12	Disciplinary Core Idea: ESS3.B <i>Natural Hazards</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>:  <a href="#">Pages 192–184</a></li> </ul>
	Crosscutting Concept: <i>Cause and Effect</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>:  <a href="#">Page 87–89</a></li> </ul>
	Science and Engineering Practices: <i>Engaging in Argument from Evidence</i> <ul style="list-style-type: none"> <li>From the <i>Framework</i>:  <a href="#">Bottom of pg. 71–74</a></li> </ul>

[← Table of Contents](#)
[Next Lesson →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Lesson 13

Page	Resource Links
92	Performance Expectation: <ul style="list-style-type: none"> <li>• <a href="#">3-ESS3-1</a></li> <li>• <a href="#">Evidence Statements</a> for 3-ESS3-1</li> </ul>
	Disciplinary Core Idea: ESS3.B <i>Natural Hazards</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Pages 192–184</a></li> </ul>
	Crosscutting Concept: <i>Cause and Effect</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Page 87–89</a></li> </ul>
	Crosscutting Concept: <i>Influence of Engineering, Technology, and Science on Society and the Natural World</i> <a href="#">Connections to Engineering, Technology and Applications of Science</a>
	Science and Engineering Practices: <i>Engaging in Argument from Evidence</i> <ul style="list-style-type: none"> <li>• From the <i>Framework</i>: <a href="#">Bottom of pg. 71–74</a></li> </ul>

[← Table of Contents](#)
[Unit Review →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).

## Unit Review and Assessment

### UR Lesson

Page	Resource Links
98	Performance Expectation: <ul style="list-style-type: none"> <li>• <a href="#">3-ESS2-1</a></li> <li>• <a href="#">Evidence Statements</a> for 3-ESS2-1</li> </ul>
	Performance Expectation: <ul style="list-style-type: none"> <li>• <a href="#">3-ESS2-2</a></li> <li>• <a href="#">Evidence Statements</a> for 3-ESS2-2</li> </ul>
	Performance Expectation: <ul style="list-style-type: none"> <li>• <a href="#">3-ESS3-1</a></li> <li>• <a href="#">Evidence Statements</a> for 3-ESS3-1</li> </ul>
101	[IMAGE] <a href="#">Modern barometer</a>
102	[VIDEO] <a href="#">Benjamin Franklin lightning experiment</a>

## Culminating Unit Assessment

Page	Resource Links
158	<a href="#">Unit Assessment: Teacher Evaluation Guide</a>

[← Table of Contents](#)
[Teacher Resource →](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).



## Teacher Resources

Page	Resource Links
11	<a href="#">Resources for Effective &amp; Safe Classroom Activities</a> (also, see below re: page 162)
12	<a href="#">Materials Supply List: Grade 3 Unit 4 Weather and Climate</a>
154	<a href="#">Activity Pages Answer Key</a>
158	<a href="#">Unit Assessment: Teacher Evaluation Guide</a>
162	Safety in the Science Classroom: <ul style="list-style-type: none"> <li>• <a href="#">NSTA Safety Resources</a></li> <li>• <a href="#">Safety Resources for Elementary Teachers</a></li> </ul>
	<b>Teacher Guide Appendices:</b> <ul style="list-style-type: none"> <li>• <a href="#">Appendix A – Glossary</a></li> <li>• <a href="#">Appendix B – Safety for Activities</a></li> <li>• <a href="#">Appendix C – Strategies for Acquiring Materials</a></li> <li>• <a href="#">Appendix D – Advance Preparation</a></li> <li>• <a href="#">Appendix E – Unexpected Activity Results</a></li> </ul>

← [Table of Contents](#)

CKSci Online Resources include links to sites external to the Core Knowledge Foundation and the coreknowledge.org website. These external sites are owned and operated by third-parties, and the Core Knowledge Foundation is not responsible for any errors or omissions in either the links themselves or the content of the websites. If you experience any difficulties when attempting to access one of the linked resources found here, please [contact us](#).