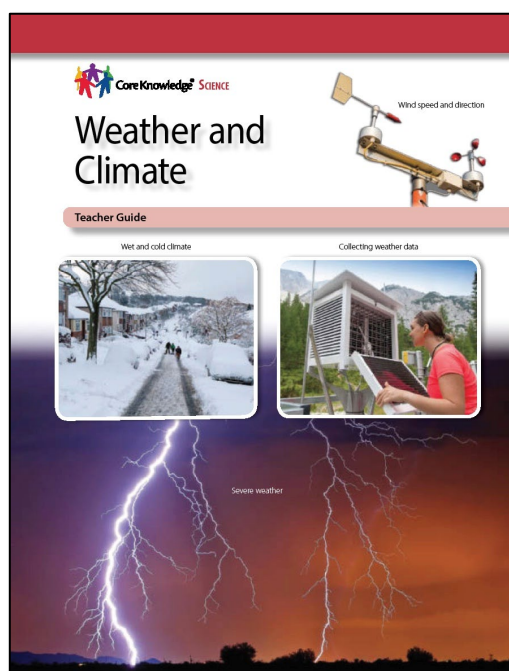


Weather and Climate

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](#)).

	About This Unit
Part A	Lesson 1
	Lesson 2
	Lesson 3
Part B	Lesson 4
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Part C	Lesson 7
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	Lesson 13
Unit Review & Assessment	UR Lesson
	Culminating Resources
	Teacher Resources



Extend and customize this unit for your students using the [CKSci Additional Activities](#)

About This Unit

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

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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"> From the <i>Framework</i>: Pages 186–189
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> From the <i>Framework</i>: Page 85–87
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> <ul style="list-style-type: none"> From the <i>Framework</i>: Page 89–91

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Lesson 2

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

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Lesson 3

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

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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"> From the <i>Framework</i>: Pages 186–189
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> From the <i>Framework</i>: Page 85–87
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> From the <i>Framework</i>: Page 61–63
38	[VIDEO OPTION] Hot-air balloons
	[IMAGES] Kitesurfing

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Lesson 5

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

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Lesson 6

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

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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"> From the <i>Framework</i>: Pages 186–189
	Crosscutting Concept: <i>Patterns</i> <ul style="list-style-type: none"> From the <i>Framework</i>: Page 85–87
	Science and Engineering Practices: <i>Analyzing and Interpreting Data</i> <ul style="list-style-type: none"> From the <i>Framework</i>: Page 61–63
52	[VIDEO OPTION] Meteorologist kids

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Lesson 8

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

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Lesson 9

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

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Lesson 10

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

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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"> From the <i>Framework</i>: Pages 192–184
	Crosscutting Concept: <i>Cause and Effect</i> <ul style="list-style-type: none"> From the <i>Framework</i>: Page 87–89
	Science and Engineering Practices: <i>Engaging in Argument from Evidence</i> <ul style="list-style-type: none"> From the <i>Framework</i>: Bottom of pg. 71–74
84	[VIDEO] Extreme weather Hurricane Tornado [begin at 1:10] Lightning

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Lesson 12

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

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Lesson 13

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

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[Unit Review →](#)

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Unit Review and Assessment

UR Lesson

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

Culminating Unit Assessment

Page	Resource Links
158	Unit Assessment: Teacher Evaluation Guide

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[Teacher Resource →](#)

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Teacher Resources

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

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