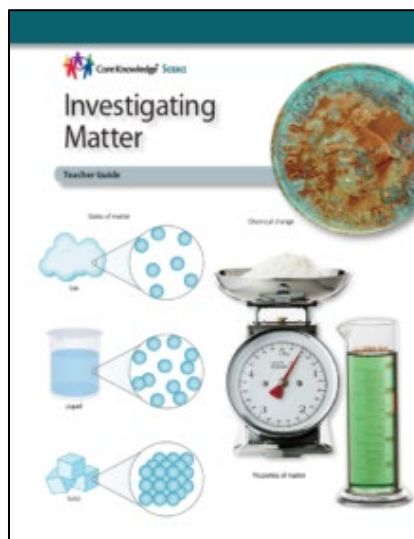


Investigating Matter

Click on each section link 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
	Lesson 5
Part C	Lesson 6
	Lesson 7
Part D	Lesson 8
	Lesson 9
	Lesson 10
Part E	Lesson 11
	Lesson 12
Unit Review & Assessment	UR Lesson
	Culminating Assessment
	Teacher Resources



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

About This Unit

Page	Resource Links
1	Note to Teachers and Curriculum Planners: - The learning progressions of Disciplinary Core Idea PS1.A Structure and Properties of Matter as well as PS1.B Chemical Reactions offer guidance regarding the scope and sequence of learning about matter in the elementary grades and beyond. - Learn more about these core ideas and their related content by reading the corresponding section of <i>A Framework for K–12 Science Education</i>: pg. 106–111 See also the Teacher Resources section of this guide.
2	Notes to Core Knowledge Teachers: <i>2019 Core Knowledge Science Sequence</i> for this unit: Domain—Investigating Matter CKSci correlations to the <i>2010 Core Knowledge Sequence</i>— GRADE 3 GRADE 4 GRADE 5
3	This unit has been informed by the following Next Generation Science Standards (NGSS) Performance Expectations: Topic—5. Structure and Properties of Matter 5-PS1-1 5-PS1-2 5-PS1-3 5-PS1-4 Learn more about the Next Generation Science Standards: Additional Resources to Understand the Three Dimensions of the Next Generation Science Standards
11	Resources for Effective & Safe Classroom Activities
12	Materials Supply List: Grade 5 Unit 1 Matter
14	Pacing Guides for CKSci Grades 3–5

[← Table of Contents](#)
[Lesson 1 →](#)

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: Properties of Matter

Lesson 1

Page	Resource Links
20	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106–109
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> From the <i>Framework</i>: Bottom of pg. 89–91
	Science and Engineering Practice: <i>Planning and Carrying Out Investigations</i> From the <i>Framework</i> : Bottom of pg. 59–61

← [Table of Contents](#)

[Next Lesson](#) →

Lesson 2

Page	Resource Links
28	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106-109
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> From the <i>Framework</i>: Bottom of pg. 89-91
31	Consider the goals of 5-PS1-3 (fully addressed during Lesson 3)
33	[VIDEO OPTION] PBS ZOOM: Buoyancy

Lesson 3

Page	Resource Links
36	Performance Expectation: 5-PS1-3 Evidence Statements for 5-PS1-3
	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106-109
	Science and Engineering Practices: <i>Planning and Carrying Out Investigations</i> (SEP #3) From the <i>Framework</i> pg. 59-61 <i>Engaging in Argument from Evidence</i> From the <i>Framework</i> pg. 71-74
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> From the <i>Framework</i>: Bottom of pg. 89-91

[← 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: Structure of Matter

Lesson 4

Page	Resource Links
49	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106–109
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> From the <i>Framework</i>: Bottom of pg. 89–91
	Science and Engineering Practices Developing and Using Models (SEP #2); From the <i>Framework</i> pg. 56–59
56	[VIDEO OPTION] Boiling Ocean Water

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

Part B: (continued)

Lesson 5

Page	Resource Links
58	Performance Expectation: 5-PS1-1 Evidence Statements for 5-PS1-1
	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106–109
	Science and Engineering Practices Developing and Using Models (SEP #2); From the <i>Framework</i> pg. 56–59
62	[VIDEO OPTION] Convection in Water

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

Part C: Physical Changes in Matter

Lesson 6

Page	Resource Links
66	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106-109
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> From the <i>Framework</i>: Bottom of pg. 89-91
	Science and Engineering Practices: <i>Using Mathematics and Computational Thinking</i> (SEP #5) From the <i>Framework</i> pg. 64-67

Lesson 7

Page	Resource Links
72	Performance Expectation: 5-PS1-2 Evidence Statements for 5-PS1-2
	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106-109
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> From the <i>Framework</i>: Bottom of pg. 89-91
	Science and Engineering Practices: <i>Using Mathematics and Computational Thinking</i> (SEP #5) From the <i>Framework</i> pg. 64-67

[← 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: Interactions of Matter

Lesson 8

Page	Resource Links
77	Disciplinary Core Idea: PS1.B <i>Chemical Reactions</i> From the <i>Framework</i> : Middle of pg. 109-111
	Crosscutting Concept: <i>Cause and Effect</i> From the <i>Framework</i> : pg. 86-89
	Science and Engineering Practice: <i>Planning and Carrying Out Investigations</i> From the <i>Framework</i>: Bottom of pg. 59-61
79	Classroom Safety Resources: Teacher Guide Appendix B – Safety for Activities NSTA Safety Resources Safety Resources for Elementary Teachers

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

Part D: (continued)

Lesson 9

Page	Resource Links
82	Disciplinary Core Idea: PS1.B <i>Chemical Reactions</i> From the <i>Framework</i>: Middle of pg. 109-111
	Crosscutting Concept: <i>Cause and Effect</i> From the <i>Framework</i>: pg. 86-89
84	[VIDEO OPTION] Precipitation

Lesson 10

Page	Resource Links
89	Performance Expectations: 5-PS1-4 (as well as reinforcing/extending 5-PS1-2) Evidence Statements for 5-PS1-4
	Disciplinary Core Idea: PS1.B <i>Chemical Reactions</i> From the <i>Framework</i>: Middle of pg. 109-111
	Crosscutting Concepts: <i>Cause and Effect</i> - From the <i>Framework</i>: pg. 86-89 <i>Systems and System Models</i> - From the <i>Framework</i>: Bottom of pg. 91-94
	Science and Engineering Practice: <i>Planning and Carrying Out Investigations</i> From the <i>Framework</i>: Bottom of pg. 59-61

[← Table of Contents](#)

[Next Lesson →](#)

Part E: Introduction to the Language of Chemistry

Lesson 11

Page	Resource Links
94	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106–109
	Crosscutting Concept: <i>Scale, Proportion, and Quantity</i> From the <i>Framework</i>: Bottom of pg. 89–91
	Science and Engineering Practice: <i>Obtaining, Evaluating, and Communicating Information</i> From the <i>Framework</i>: Bottom of pg. 87–89
97	[Student/Teacher Reference] Royal Society of Chemistry – Periodic Table Interactive Periodic Table The Photographic Periodic Table

Lesson 12

Page	Resource Links
100	Disciplinary Core Idea: PS1.A <i>Structure and Properties of Matter</i> From the <i>Framework</i>: pg. 106–109
	Science and Engineering Practices: Developing and Using Models (SEP #2); From the <i>Framework</i> pg. 56–59

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

Unit Review and Assessment

UR Lesson

Page	Resource Links
103	NGSS Performance Expectations addressed by this unit: Topic— 5. Structure and Properties of Matter • 5-PS1-1 • 5-PS1-2 • 5-PS1-3 • 5-PS1-4

Culminating Unit Assessment

Page	Resource Links
155	Unit Assessment: Teacher Evaluation Guide

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

Teacher Resources

Page	Resource Links
3	Additional Resources to Understand the Three Dimensions of the Next Generation Science Standards
11	Resources for Effective & Safe Classroom Activities (see also links below re: page 159)
12	Materials Supply List: Grade 5 Unit 1 Matter
15	Pacing Guides for CKSci Grades 3–5
108	Activity Pages Answer Key
155	Unit Assessment: Teacher Evaluation Guide
159	Safety in the Science Classroom: • NSTA Safety Resources • Safety Resources for Elementary Teachers
	Teacher Guide Appendices: • Appendix A – Glossary • Appendix B – Safety for Activities • Appendix C – Strategies for Acquiring Materials • Appendix D – Advance Preparation • Appendix E – Unexpected Activity Results

← [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](#).