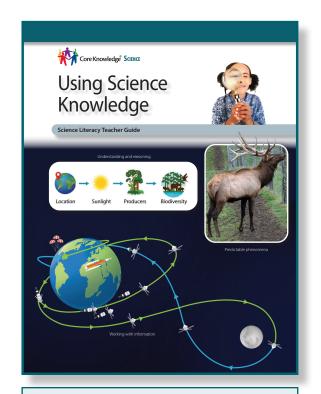


### **Using Science Knowledge**

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).

<u>Introduction</u>	Lesson 12
<u>Lesson 1</u>	Lesson 13
<u>Lesson 2</u>	Lesson 14
<u>Lesson 3</u>	Lesson 15
<u>Lesson 4</u>	Lesson 16
<u>Lesson 5</u>	Lesson 17
<u>Lesson 6</u>	Lesson 18
<u>Lesson 7</u>	Lesson 19
<u>Lesson 8</u>	Lesson 20
<u>Lesson 9</u>	
<u>Lesson 10</u>	Teacher Resources
Lesson 11	



NOTE: Any entries with **UPDATED** listed mean the link's content has changed. This will not be reflected in the Teacher Guide print or online versions.



# **Using Science Knowledge**

#### Introduction

Page	Resource Links
1	Note to Core Knowledge Teachers:
	Core Knowledge Sequence (Website)
	This unit emphasizes the Next Generation Science Standards (NGSS):
	Crosscutting Concepts (CCC) (PDF Document)
	Science and Engineering Practices (SEP) (PDF Document)
10–11	Common Core State Standards for English Language Arts (PDF Document)
11	Student Bookmarks (PDF Document)
13	Materials List for Grade 5, Unit 8 (PDF Document)
14	Grade 5 Engagement 1 (use following Lesson 7) (CK Digitals Website)
	Grade 5 Engagement 2 (use following Lesson 14) (CK Digitals Website)
	Grade 5 Engagement 3 (use following Lesson 20) (CK Digitals Website)
	Grade 5 Reward Engagement (use following Engagements 1–3) (CK Digitals Website)



# **Using Science Knowledge**

#### Lesson 1

Page	Resource Links
17	YouTube - Artemis-1 Launch Cinematic 4K (FULL VOLUME) No Music (NASA's SLS Rocket) (Video)
18	YouTube - Four Astronauts Return to Earth in SpaceX Capsule (Video)
	NASA - Teach Artemis (Website)
	YouTube - PLAYce for Kids: Designing our 3,000th playground (Video) - UPDATED





# **Using Science Knowledge**

#### **Lesson 2**

Page	Resource Links
20	<u>Deer Valley Unified School District - Constellation</u> (PowerPoint; direct download)  Beautiful Pacific Holidays - Polynesia Islands (Website)
21	OnTheWorldMap.com - Map of the U.S. and Canada (Map)  YouTube - Earthquakes and Tsunamis for Kids   A Fun Engaging Introduction to Earthquakes and  Tsunamis for Kids (Video)
22	YouTube - MythBusters (Video)

← Previous Lesson Next Lesson ←



# **Using Science Knowledge**

### Lesson 3

Page	Resource Links
26	The Guardian - The Five: Changes in Animal Behaviour Due to Global Heating (Article)
	KidzSearch (Website)
	Fact Monster (Website)
	Kiddle (Website)
	<u>Kidtopia</u> (Website)
	<u>DuckDuckGo</u> (Website)

← Previous Lesson Next Lesson → Previous Lesson Next Lesson → Previous Lesson → Previous



# **Using Science Knowledge**

#### Lesson 4

Page	Resource Links
30	Carly & Adam - What is the Engineering Design Process and How Do You Teach It? (Blog)





# **Using Science Knowledge**

#### Lesson 5

Page	Resource Links
33	YouTube - What is an Atom?   Structure of an Atom (Video)
34	Britannica Kids (Website)
	Kiddle (Website)
	<u>DuckDuckGo</u> (Website)



# **Using Science Knowledge**

#### Lesson 6

Page	Resource Links
38	Frontiers - Frontiers for Young Minds (Articles)
	Science Journals for Kids - Scientific Articles for Elementary School (Articles)

← Previous Lesson Next Lesson →



# **Using Science Knowledge**

#### **Lesson 7**

Page	Resource Links
42	TeachEngineering - All Caught Up: Acting Out Bycatching Points of View (Website)

← Previous Lesson Next Lesson →



# **Using Science Knowledge**

#### **Lesson 8**

Page	Resource Links
44	YouTube - The Importance of Mathematics in Our Daily Life (Video)
46	Penn State Extension - Elk Production (Article)

← Previous Lesson Next Lesson 
 ← Next Lesson 

 ← Next Lesson 
 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesso



# **Using Science Knowledge**

#### Lesson 9

Page	Resource Links
48	YouTube - Developing a Rubric (Video)





# **Using Science Knowledge**

#### Lesson 10

Page	Resource Links
52	YouTube - Receiving Feedback (Video)
	YouTube - Giving Constructive Feedback (Video)





# **Using Science Knowledge**

#### Lesson 11

Page	Resource Links
56	YouTube - A Guide to the Energy of the Earth—Joshua M. Sneideman (Video)

← Previous Lesson Next Lesson →



# **Using Science Knowledge**

#### Lesson 12

Page	Resource Links
60	YouTube - Patterns in Nature Overview (Video)





# **Using Science Knowledge**

#### Lesson 13

Page	Resource Links
64	YouTube - Rainbow Myth (Video)

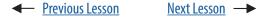
← Previous Lesson Next Lesson →



# **Using Science Knowledge**

#### Lesson 14

Page	Resource Links
68	<u>YouTube - Math Antics - Units of Distance</u> (Video)
69	YouTube - Light Seconds, Light Years, Light Centuries: How to Measure Extreme Distances— Yuan-Sen Ting (Video)
70	Northern Arizona University - Image of a Geological Timescale (Image)





# **Using Science Knowledge**

### Lesson 15

Page	Resource Links
72	YouTube - Tools of Science: Modeling (Video)

← Previous Lesson Next Lesson →



# **Using Science Knowledge**

#### Lesson 16

Page	Resource Links
76	YouTube - Energy Efficiency   Energy   Physics   FuseSchool (Video)





# **Using Science Knowledge**

#### Lesson 17

Page	Resource Links
80	YouTube - Artemis I Path to the Pad: Launch and Recovery (Video)
81	YouTube - Parachute for Space Landing   National Geographic (Video)



# **Using Science Knowledge**

#### Lesson 18

Page	Resource Links
84	YouTube - Backwards Glass Smashing!!! (Video)
	YouTube - Entropy (Video)
85	YouTube - Epic Sand Castle Devastated by Waves (Video)

← Previous Lesson Next Lesson 
 ← Next Lesson 

 ← Next Lesson 
 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesso



# **Using Science Knowledge**

#### Lesson 19

Page	Resource Links
88	YouTube - Let's Fly!: Crash Course Kids 26.2 (Video)
	YouTube - A Case of "What-Ifs": Crash Course Kids #29.1 (Video)
89	YouTube - Mission Overview: NASA's Perseverance Mars Rover (Video)



# **Using Science Knowledge**

#### Lesson 20

Page	Resource Links
92	YouTube - The Age of Metals—5 Things You Should Know—History for Kids (Video)
93	YouTube - History of Computers—How were Computers Invented Short Documentary Video (Video)

← Previous Lesson Next Lesson 
 ← Next Lesson 

 ← Next Lesson 
 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesson 

 ← Next Lesso



# **Using Science Knowledge**

#### **Teacher Resources**

Page	Resource Links
10–11	Materials List for Grade 5, Unit 8 (PDF Document)
117– 118	Answer Key for Activity Pages (PDF Document)
119-	Teacher Guide Appendices:
124	Appendix A: Glossary (PDF Document)
	Appendix B: Safety (PDF Document)
	Appendix C: Strategies for Acquiring Materials (PDF Document)
	Safety Resources:
	National Science Teaching Association (NSTA) - Safety Alert (Website)
	National Science Teaching Association (NSTA) - Safety Resources for Elementary Teachers (PDF Document)
	U.S. Department of Education - Elementary & Secondary Education (Website)
	National Cybersecurity Alliance - A Teacher's Guide To Student Online Safety (Website)

Previous Lesson