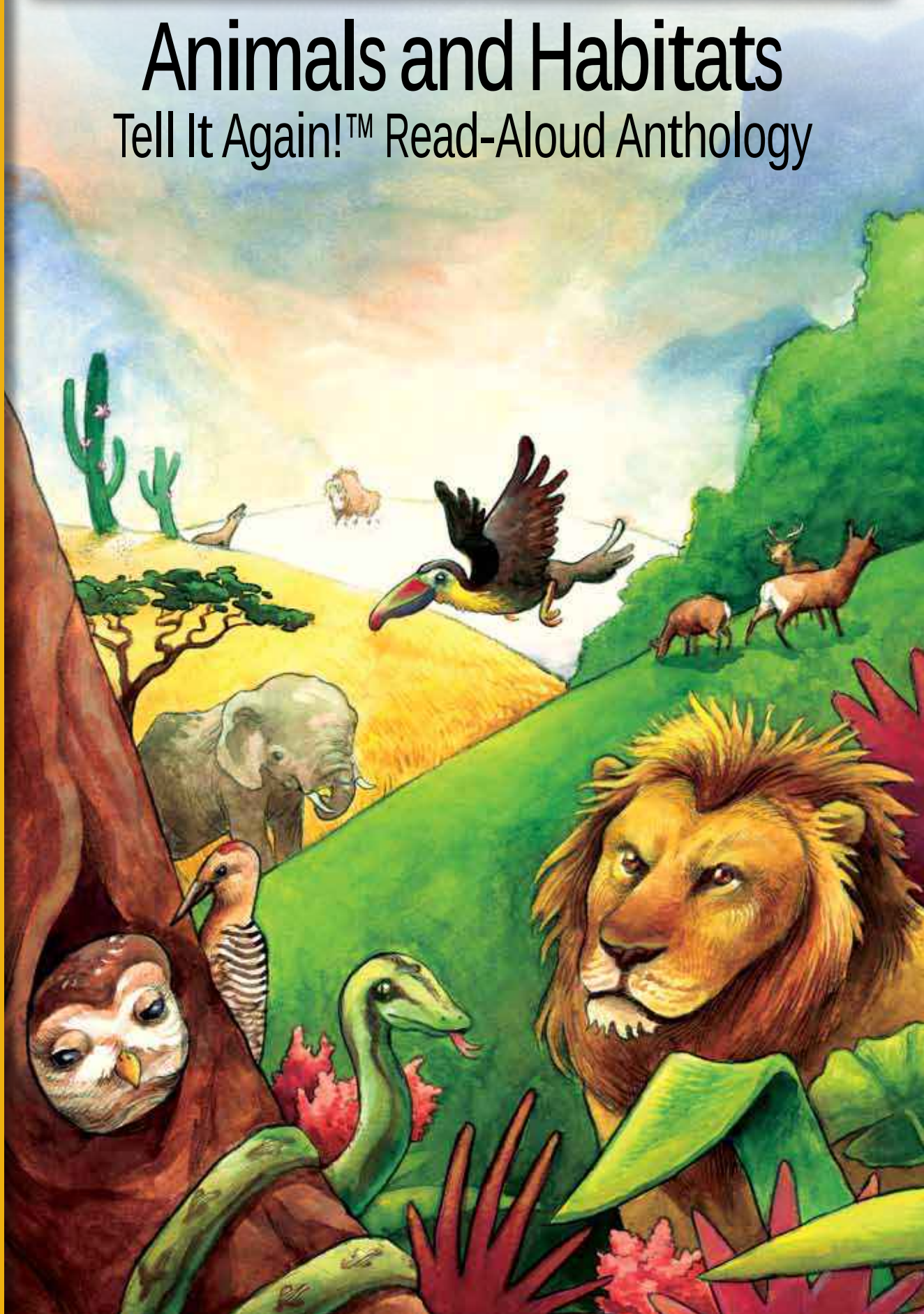
New York State Common Core

1 grade

ELA & Literacy Curriculum

Animals and Habitats

Tell It Again!™ Read-Aloud Anthology



GRADE 1 Core Knowledge Language Arts® • New York Edition • Listening & Learning™ Strand

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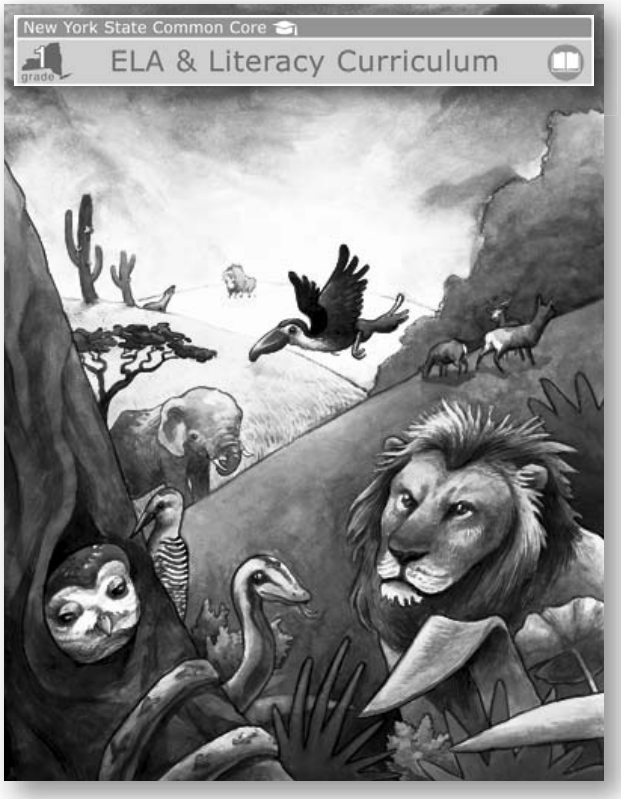


Animals and Habitats

Tell It Again!™ Read-Aloud Anthology

Listening & Learning™ Strand

GRADE 1

Core Knowledge Language Arts®
New York Edition

Core Knowledge®

Table of Contents

Animals and Habitats

Tell It Again!™ Read-Aloud Anthology

Alignment Chart for Animals and Habitats

The following chart contains core content objectives addressed in this domain. It also demonstrates alignment between the Common Core State Standards and corresponding Core Knowledge Language Arts (CKLA) goals.

Alignment Chart for Animals and Habitats	**Lesson**								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Core Content Objectives									
Explain what a habitat is	✓	✓	✓						
Explain why living things live in habitats to which they are particularly suited	✓	✓	✓	✓	✓	✓	✓	✓	✓
Identify the characteristics of the Arctic tundra habitat		✓							
Identify the characteristics of the Arctic Ocean habitat		✓							
Explain how Arctic animals have adapted to the Arctic tundra and Arctic Ocean habitats		✓							
Identify the characteristics of the desert habitat			✓						
Explain how desert animals have adapted to the desert habitat			✓						
Classify animals on the basis of the types of food that they eat (herbivore, carnivore, omnivore)			✓	✓	✓	✓	✓		
Identify the characteristics of the grassland habitat				✓					
Explain how grassland animals have adapted to the grassland habitat				✓					
Match specific plants and animals to their habitats				✓					
Identify the characteristics of the temperate deciduous forest habitat					✓				
Explain how temperate deciduous forest animals have adapted to the temperate deciduous forest habitat					✓				
Identify the characteristics of the tropical rainforest habitat						✓			
Explain how tropical rainforest animals have adapted to the tropical rainforest habitat						✓			
Classify water habitats as either freshwater or saltwater habitats							✓	✓	

Alignment Chart for Animals and Habitats	**Lesson**								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Identify the characteristics of the freshwater habitat							✓		
Explain that salt water covers most of Earth and is found in oceans								✓	
Identify and locate the oceans of the world on a globe: Arctic, Pacific, Atlantic, Indian, Southern								✓	
Describe the landscape of the ocean floor								✓	
Describe ocean life as very diverse								✓	
Match saltwater plants and animals to the saltwater habitat								✓	
Identify the characteristics of the bald eagles' habitat									✓
Explain why and how habitat destruction can cause extinction									✓

Reading Standards for Informational Text: Grade 1

Key Ideas and Details

STD RI.1.1	Ask and answer questions about key details in a text.	
CKLA Goal(s)	Ask and answer questions (e.g., *who, what, where, when*), orally or in writing, requiring literal recall and understanding of the details and/or facts of a nonfiction/informational read-aloud	✓
	Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a nonfiction/informational read-aloud, including answering *why* questions that require recognizing cause/effect relationships	✓
STD RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.	
CKLA Goal(s)	Describe the connection between two individuals, events, ideas, or pieces of information in a nonfiction/informational read-aloud	✓

Craft and Structure

STD RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	
CKLA Goal(s)	Ask and answer questions about unknown words and phrases in nonfiction/informational read-alouds and discussions	✓

Alignment Chart for Animals and Habitats		Lesson								
		1	2	3	4	5	6	7	8	9
Integration of Knowledge and Ideas										
STD RI.1.7	Use the illustrations and details in a text to describe its key ideas.									
CKLA Goal(s)	Use illustrations and details in a nonfiction/informational read-aloud to describe its key ideas	✓	✓	✓	✓			✓		
STD RI.1.8	Identify the reasons an author gives to support points in a text.									
CKLA Goal(s)	Identify the reasons or facts an author gives to support points in a nonfiction/ informational read-aloud									✓
STD RI.1.9	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).									
CKLA Goal(s)	Compare and contrast (orally or in writing) similarities and differences within a single nonfiction/informational read-aloud or between two or more nonfiction/ informational read-alouds	✓		✓	✓	✓	✓			
Range of Reading and Level of Text Complexity										
STD RI.1.10	With prompting and support, read informational texts appropriately complex for Grade 1.									
CKLA Goal(s)	Listen to and demonstrate understanding of nonfiction/informational read-alouds of appropriate complexity for Grades 1–3					✓				
Writing Standards: Grade 1										
Text Types and Purposes										
STD W.1.2	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.									
CKLA Goal(s)	Plan and/or draft, and edit an informative/ explanatory text that presents information from a nonfiction/informational read-aloud that includes mention of a topic, some facts about the topic, and some sense of closure						✓			
STD W.1.8	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.									
CKLA Goal(s)	Make personal connections (orally or in writing) to events or experiences in a fiction or nonfiction/informational read-aloud, and/or make connections among several read-alouds	✓								
	With assistance, categorize and organize facts and information within a given domain to answer questions	✓	✓	✓	✓	✓			✓	

Alignment Chart for Animals and Habitats		**Lesson**								
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Speaking and Listening Standards: Grade 1										
Comprehension and Collaboration										
STD SL.1.1	Participate in collaborative conversations with diverse partners about Grade 1 topics and texts with peers and adults in small and large groups.									
STD SL.1.1a	Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).									
CKLA Goal(s)	Use agreed-upon rules for group discussion, e.g., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc.					✓				
STD SL.1.1b	Build on others' talk in conversations by responding to the comments of others through multiple exchanges.									
CKLA Goal(s)	Carry on and participate in a conversation over at least six turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age					✓				
STD SL.1.1c	Ask questions to clear up any confusion about the topics and texts under discussion.									
CKLA Goal(s)	Ask questions to clarify information about the topic in a fiction or nonfiction/ informational read-aloud					✓				
STD SL.1.2	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.									
CKLA Goal(s)	Ask and answer questions (e.g., *who, what, where, when*), orally or in writing, requiring literal recall and understanding of the details, and/or facts of a fiction or nonfiction/informational read-aloud			✓		✓			✓	✓
Presentation of Knowledge and Ideas										
STD SL.1.4	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.									
CKLA Goal(s)	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly	✓	✓	✓	✓	✓	✓	✓	✓	
STD SL.1.5	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.									
CKLA Goal(s)	Add drawings or other visual displays to oral or written descriptions when appropriate to clarify ideas, thoughts, and feelings		✓				✓			

Alignment Chart for Animals and Habitats		Lesson								
		1	2	3	4	5	6	7	8	9
STD SL.1.6	Produce complete sentences when appropriate to task and situation.									
CKLA Goal(s)	Produce complete sentences when appropriate to task and situation					✓				
Language Standards: Grade 1										
Vocabulary Acquisition and Use										
STD L.1.5	With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.									
STD L.1.5a	Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.									
CKLA Goal(s)	Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent	✓		✓						
	Provide examples of common synonyms and antonyms								✓	
STD L.1.5b	Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes).									
CKLA Goal(s)	Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes)			✓						
STD L.1.5c	Identify real-life connections between words and their use (e.g., note places at home that are *cozy*).									
CKLA Goal(s)	Identify real-life connections between words and their use (e.g., note places at home that are *cozy*)					✓				
STD L.1.6	Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*).									
CKLA Goal(s)	Learn the meaning of common sayings and phrases							✓		
	Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*)					✓				

Alignment Chart for Animals and Habitats	**Lesson**								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Additional CKLA Goals									
Prior to listening to an informational read-aloud, identify what they know about a given topic		✓	✓	✓				✓	✓
While listening to an informational read-aloud, orally predict what will happen next in the read-aloud based on the text heard thus far, and then compare the actual outcome to the prediction			✓						
Identify new meanings for familiar words and apply them accurately			✓		✓				
Share writing with others		✓							
Use frequently occurring conjunctions, such as *but*						✓			

✓ These goals are addressed in all lessons in this domain. Rather than repeat these goals as lesson objectives throughout the domain, they are designated here as frequently occurring goals.

Introduction to Animals and Habitats

This introduction includes the necessary background information to be used in teaching the *Animals and Habitats* domain. The *Tell It Again! Read-Aloud Anthology* for *Animals and Habitats* contains nine daily lessons, each of which is composed of two distinct parts, so that the lesson may be divided into smaller chunks of time and presented at different intervals during the day. The entire lesson will require a total of sixty minutes.

This domain includes a Pausing Point following Lesson 5. At the end of the domain, a Domain Review, a Domain Assessment, and Culminating Activities are included to allow time to review, reinforce, assess, and remediate content knowledge. **You should spend no more than thirteen days total on this domain.**

Week One				
Day 1 #	**Day 2**	**Day 3**	**Day 4** #	**Day 5**
Lesson 1A: "What is a Habitat?" (40 min.)	Lesson 2A: "Animals of the Arctic Habitat" (40 min.)	Lesson 3A: "Animals of the Sonoran Desert Habitat" (40 min.)	Lesson 4A: "Animals of the East African Savanna Habitat" (40 min.)	Lesson 5A: "Animals of the Temperate Deciduous Forest Habitat" (40 min.)
Lesson 1B: Extensions (20 min.)	Lesson 2B: Extensions (20 min.)	Lesson 3B: Extensions (20 min.)	Lesson 4B: Extensions (20 min.)	Lesson 5B: Extensions (20 min.)
60 min.	60 min.	60 min.	60 min.	60 min.

Week Two				
Day 6 # ⑩	**Day 7**	**Day 8**	**Day 9**	**Day 10** ⑩
Pausing Point (60 min.)	Lesson 6A: "Animals of the Tropical Rainforest Habitat" (40 min.)	Lesson 7A: "Animals of the Freshwater Habitat" (40 min.)	Lesson 8A: "Animals of the Saltwater Habitat" (40 min.)	Lesson 9A: "Habitat Destruction and Endangered Species" (40 min.)
	Lesson 6B: Extensions (20 min.)	Lesson 7B: Extensions (20 min.)	Lesson 8B: Extensions (20 min.)	Lesson 9B: Extensions (20 min.)
60 min.	60 min.	60 min.	60 min.	60 min.

Week Three		
Day 11 #	**Day 12** # ⑩	**Day 13** #
Domain Review (60 min.)	Domain Assessment (60 min.)	Culminating Activities (60 min.)
60 min.	60 min.	60 min.

⑩ Lessons include Student Performance Task Assessments

\# Lessons require advance preparation and/or additional materials; please plan ahead

Domain Components

Along with this Anthology, you will need:

- *Tell It Again! Media Disk* or the *Tell It Again! Flip Book** for *Animals and Habitats*
- *Tell It Again! Image Cards* for *Animals and Habitats*
- *Tell It Again! Supplemental Guide* for *Animals and Habitats*

*The *Tell It Again! Multiple Meaning Word Posters* and the *Tell It Again! Posters* for *Animals and Habitats* are located at the end of the *Tell It Again! Flip Book.*

Recommended Resource:

- *Core Knowledge Grade 1 Teacher Handbook,* edited by E.D. Hirsch, Jr. and Souzanne A. Wright (Core Knowledge Foundation, 2004) ISBN: 978-1890517700

Why Animals and Habitats Are Important

This domain will introduce students to the wonder of the natural world, focusing on the interconnectedness of all living things with their physical environment and with one another. Students will learn what a habitat is and will also learn to identify specific types of habitats and their related characteristics. They will learn to recognize different plants and animals as being indigenous to specific habitats and will begin to develop an understanding of several fundamental principles of nature. They will learn, for example, that animals and plants typically live in those habitats to which they are best suited, often developing unique characteristics or features that enable them to specifically adapt to the climate and conditions of a given environment. They will also be introduced to simple classifications of animals according to the types of food they eat and will begin to understand the notion of a food chain.

In later grades, students will build upon the knowledge of habitats and animals that they will have gained from listening to and discussing the read-alouds in this domain. The concepts and factual information that they learn now will serve as the basis

for later, in-depth understanding of increasingly detailed and sophisticated biological taxonomies, the interdependence of all of nature and its fragile balance, and an appreciation of the role that human beings must assume to protect the world in which they live.

What Students Have Already Learned in Core Knowledge Language Arts during Kindergarten

The following Kindergarten domains, and the specific core content that was targeted in those domains, are particularly relevant to the read-alouds students will hear in *Animals and Habitats.* This background knowledge will greatly enhance students' understanding of the read-alouds they are about to enjoy:

Plants

- Explain that there are many different kinds and sizes of plants
- Explain that different kinds of plants grow in different environments
- Explain that plants are living things
- Describe what plants need to live and grow: food, water, air, and sunlight
- Identify the root, stem, leaf, flower, and seed of a plant
- Explain that roots anchor the plant and take in water and nutrients
- Explain that stems support the plant and carry water and nutrients to the various parts of the plant
- Explain that the plant makes its food in the leaves
- Explain the basic life cycle of plants
- Compare and contrast deciduous and evergreen plants

Farms

- Identify needs of farm animals: food, water, and space to live and grow
- Match pictures and/or names of farm animal babies to their adult parents
- Describe how farm animal babies need to be fed and cared for by their parents or people

Seasons and Weather

- Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season
- Characterize winter as generally the coldest season, summer as generally the warmest season, and spring and autumn as more temperate, transitional seasons
- Describe any unique seasonal differences that are characteristic of their own locality (change of color and dropping of leaves in autumn; snow or ice in winter; increased rain and/or flooding in spring; etc.)
- Describe daily weather conditions of their own locality in terms of temperature (hot, warm, cool, cold); cloud cover (sunny, cloudy); and precipitation (rain, snow, or sleet)
- Characterize the North and South Poles as always cold in temperature, the middle section of the earth as usually warm, and the United States as having four seasons

Taking Care of the Earth

- Explain that Earth is composed of land, water, and air
- Identify examples of land, water, and air from their own environments
- Understand that humans, plants, and animals depend on Earth's land, water, and air to live
- Explain that humans generate large amounts of garbage, which must be disposed of
- Sequence what happens to garbage from its creation to being dumped in the landfill
- Explain that natural resources are things found in nature that are valuable and of great importance to people
- Recognize the phrase "Reduce, reuse, recycle!" and explain how doing these three things can help conserve natural resources
- Explain that land, air, and water all suffer from different types of pollution, and most types of pollution are caused by human activities

- Identify sources of air pollution, including cars and electricity produced by coal-fired power plants
- Compare and contrast fresh water, salt water, and wastewater
- Explain that many living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth
- Identify sources of water pollution, including factory waste and garbage

Core Vocabulary for Animals and Habitats

The following list contains all of the core vocabulary words in *Animals and Habitats* in the forms in which they appear in the domain. These words appear in the read-alouds or, in some instances, in the "Introducing the Read-Aloud" section at the beginning of the lesson. Boldfaced words in the list have an associated Word Work activity. The inclusion of the words on this list does not mean that students are immediately expected to be able to use all of these words on their own. However, through repeated exposure throughout all of the lessons, they should acquire a good understanding of most of these words and begin to use some of them in conversation.

Lesson 1

habitat
living
shelter
survive

Lesson 2

adapted
burrow
exposed
tundra

Lesson 3

camouflage
carnivore
herbivores
nocturnal
omnivore
scavenger

Lesson 4

coexist
hardy
predators
prey
prickly

Lesson 5

climate
hibernate
species
store
temperate
territory

Lesson 6

canopy
colonies
dense
humid
patterns

Lesson 7

amphibious
float
freshwater
gills

Lesson 8

plankton
regeneration
shallow
slopes
valleys

Lesson 9

destroy
endanger
endangered species
extinction

Student Performance Task Assessments

In the *Tell It Again! Read-Aloud Anthology* for *Animals and Habitats,* there are numerous opportunities to assess students' learning. These assessment opportunities range from informal observations, such as *Think Pair Share* and some Extension activities, to more formal written assessments. These Student Performance Task Assessments (SPTA) are identified in the *Tell It Again! Read-Aloud Anthology* with this icon: ⑩. There is also an end-of-domain summative assessment. Use the Tens Conversion Chart located in the Appendix to convert a raw score on each SPTA into a Tens score. On the same page, you will also find the rubric for recording observational Tens scores.

Above and Beyond

In the *Tell It Again! Read-Aloud Anthology* for *Animals and Habitats,* there are numerous opportunities in the lessons and Pausing Point to challenge students who are ready to attempt activities that are above grade-level. These activities are labeled "Above and Beyond" and are identified with this icon: .

Supplemental Guide

Accompanying the *Tell It Again! Read-Aloud Anthology* is a *Supplemental Guide* designed specifically to assist educators who serve students with limited English oral language skills or students with limited home literary experience, which may include English Language Learners (ELLs) and children with special needs. Teachers whose students would benefit from enhanced oral language practice may opt to use the *Supplemental Guide* as their primary guide in the Listening & Learning Strand. Teachers may also choose to begin a domain by using the *Supplemental Guide* as their primary guide before transitioning to the *Tell It Again! Read-Aloud Anthology,* or may choose individual activities from the *Supplemental Guide* to augment the content covered in the *Tell It Again! Read-Aloud Anthology.*

The *Supplemental Guide* activities that may be particularly relevant to any classroom are the Multiple Meaning Word Activities and accompanying Multiple Meaning Word Posters, which help students determine and clarify different meanings of words; Syntactic Awareness Activities, which call students' attention to sentence structure, word order, and grammar; and Vocabulary Instructional Activities, which place importance on building students' general academic, or Tier 2, vocabulary. These activities afford all students additional opportunities to acquire a richer understanding of the English language. Several of these activities have been included as Extensions in the *Tell It Again! Read-Aloud Anthology.* In addition, several words in the *Tell It Again! Read-Aloud Anthology* are underlined, indicating that they are multiple-meaning words. The accompanying sidebars explain some of the more common alternate meanings of these words. *Supplemental Guide* activities included in the *Tell It Again! Read-Aloud Anthology* are identified with this icon: .

Recommended Resources for Animals and Habitats

The *Tell It Again! Read-Aloud Anthology* includes a number of opportunities in Extensions, in the Pausing Point, and in the Domain Review for teachers to select trade books from this list to reinforce domain concepts through the use of authentic literature. In addition, teachers should consider other times throughout the day when they might infuse authentic domain-related literature. If you recommend that families read aloud with their child each night, you may wish to suggest that they choose titles from this trade book list to reinforce the domain concepts. You might also consider creating a classroom lending library, allowing students to borrow domain-related books to read at home with their families.

1. *About Birds: A Guide for Children*, by Cathryn Sill and illustrated by John Sill (Peachtree Publishers, 1997) ISBN 978-1561451470
2. *Afternoon on the Amazon (Magic Tree House, No. 6)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1995) ISBN 978-0679863724
3. *The Arctic Habitat*, by Mary Aloian and Bobbie Kalman (Crabtree Publishing Company, 978-0778729815
4. *Buffalo Before Breakfast (Magic Tree House, No. 18)*, by Mary Pope Osborne and Sal Murdocca (Random House, 1999) ISBN 978-0679890645
5. *Cactus Hotel (An Owlet Book)*, by Brenda Z. Guiberson and Megan Lloyd (Henry Holt and Company, 1993) ISBN 978-0805029604
6. *Can We Share the World with Tigers?* by Robert E. Wells (Albert Whitman & Company, 2012) ISBN 978-0807510551
7. *Dark Day in the Deep Sea (Magic Tree House, No. 40)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 2009) ISBN 978-0375837326
8. *Desert Giant: The World of the Saguaro Cactus (Tree Tales)*, by Barbara Bash (Sierra Club Books for Children, 2002) ISBN 978-1578050857

9. *Dingoes at Dinnertime (Magic Tree House, No. 20)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 2000) ISBN 978-0679890669
10. *Dolphins and Sharks: A Magic Tree House Research Guide*, by Mary Pope Osborne, Natalie Pope Boyce, and Sal Murdocca (Random House Books for Young Readers, 2003) ISBN 978-0375823770
11. *Dolphins at Daybreak (Magic Tree House, No. 9)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1997) ISBN 978-0679883388
12. *Eve of the Emperor Penguin (Magic Tree House, No. 40)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 2008) ISBN 978-0375837333
13. *Good Morning, Gorillas (Magic Tree House, No. 26)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 2002) ISBN 978-0375806148
14. *The Great Kapok Tree: A Tale of the Amazon Rainforest*, by Lynne Cherry (Voyager Books, 2000) ISBN 978-0152026141
15. *Here Is the African Savanna (Web of Life)*, by Madeleine Dunphy (Web of Life Children's Books, 2006) ISBN 978-0977379521
16. *Here Is the Coral Reef (Web of Life)*, by Madeleine Dunphy (Web of Life Children's Book, 2006) ISBN 978-0977379545
17. *How to Hide an Octopus and Other Sea Creatures (All Aboard Book)*, by Ruth Heller (Grosset and Dunlap, 1992) ISBN 978-0448404783
18. *I See a Kookaburra!: Discovering Animal Habitats Around the World,* by Steve Jenkins and Robin Page (Houghton Mifflin, 2005) ISBN 978-0618507641
19. *Koala Lou,* by Mem Fox and illustrated by Pamela Lofts (Voyager Books, 1989) ISBN 978-0152000769
20. *Life in a Pond (Pebble Plus: Living in a Biome)*, by Carol K. Lindeen (Capstone Press, 2003) ISBN 978-0736834025

21. *Life in a Wetland (Living in a Biome)*, by Carol K. Lindeen (Capstone Press, 2006) ISBN 978-0736834056
22. *Lions at Lunchtime (Magic Tree House, No. 11)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1998) ISBN 978-0679883401
23. *Magic Tree House Fact Tracker #26: Pandas and Other Endangered Species,* by Mary Pope Osborne, Natalie Pope Boyce, and illustrated by Sal Murdocca (Random House Books for Young Readers, 2012) ISBN 978-0375870255
24. *Penguins and Antarctica (Magic Tree House Research Guides)*, by Mary Pope Osborne, Natalie Pope Boyce, and Sal Murdocca (Random House Books for Young Readers, 2008) ISBN 978-0375946646
25. *Polar Bears and the Arctic (Magic Tree House Research Guide)*, by Mary Pope Osborne and Natalie Pope Boyce (A Stepping Stone Book, 2007) ISBN 978-0375832222
26. *Polar Bears Past Bedtime (Magic Tree House, No. 12)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1998) ISBN 978-0679883418
27. *Rain Forests (Magic Tree House Research Guide)*, by Will Osborne and Mary Pope Osborne (A Stepping Stone Book, 2001) ISBN 978-0375813559
28. *Sea Monsters: A Nonfiction Companion to Dark Day in the Deep Sea*, by Mary Pope Osborne, Natalie Pope Boyce, and Sal Murdocca (Random House Books for Young Readers, 2008) ISBN 978-0375846632
29. *Snakes Are Hunters (Let's-Read-and-Find-Out Science*, Stage 2), by Patricia Lauber (HarperTrophy, 1989) ISBN 978-0064450911
30. *Starfish (Let's-Read-and-Find-Out-Science)*, by Edith Thacher Hurd and illustrated by Robin Brickman (HarperTrophy, 2000) ISBN 978-0064451987
31. *Tigers at Twilight (Magic Tree House, No. 19)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1999) ISBN 978-0679890652

32. *Un Habitat de Bosque Tropical,* by Molly Aloian and Bobbie Kalman (Crabtree Publishing Company, 2007) ISBN 978-0778783572

33. *What is a Carnivore?*, by Bobbie Kalman (Crabtree Publishing Company, 2008) ISBN 978-0778732945

34. *What is Hibernation?*, by John Crossingham and Bobbie Kalman (Crabtree Publishing Company, 2002) ISBN 978-0865059641

35. *Who Eats What? Food Chains and Food Webs (Let's-Read-and-Find-Out-Science, Stage 2)*, by Patricia Lauber and Holly Keller (HarperTrophy, 1994) ISBN 978-0064451307

36. *Why do Animals Migrate?*, by Bobbie Kalman (Crabtree Publishing Company, 2009) ISBN 978-0778733034

Websites and Other Resources

Student Resources

1. Animal Habitat Game
   http://funschool.kaboose.com/preschool/amazing-animals/games/game_animal_homes.html

2. Continent and Ocean Matching Game
   http://www.sheppardsoftware.com/world_G0_Click.html

3. Ocean Habitats
   http://kids.nationalgeographic.com/kids/photos/oceans/#/tierradelfuego-745734_15601_600x450.jpg

Teacher Resources

4. Arctic Tundra Photographs
   http://www.arcticphoto.co.uk/gallery2/arctic/landscape/tundra/tundra.htm

5. Endangered Animals
   http://www.sheppardsoftware.com/content/animals/kidscorner/endangered_animals/whats_the_problem.htm

6. Museum of Natural History
   http://www.amnh.org

What is a Habitat?

1

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain what a habitat is
- ✓ Explain why living things live in habitats to which they are particularly suited

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Describe an illustration of an alley habitat and use pictures and detail in "What Is a Habitat?" to describe the read-aloud's key ideas (RI.1.7)
- ✓ Compare and contrast students' habitats with the alley habitat described in "What Is a Habitat?" (RI.1.9)
- ✓ Make personal connections to the habitats described in "What Is a Habitat?" (W.1.8)
- ✓ With assistance, categorize and organize information about the food and shelter seen in their habitat (W.1.8)
- ✓ Describe Rattenborough's habitat in "What Is a Habitat?" with relevant details, expressing ideas and feelings clearly (SL.1.4)
- ✓ Sort words and ideas into the categories of *living* and *nonliving* to gain a sense of the concepts the categories represent (L.1.5a)

Core Vocabulary

habitat, *n.* The place where an animal or plant normally lives and grows
Example: The forest is a deer's natural habitat.
Variation(s): habitats

living, *adj.* Being alive; having life
Example: Animals are living creatures that need food and water.
Variation(s): none

shelter, *n.* Something that protects from weather or danger
Example: During the thunderstorm, we sat in the car for shelter so we wouldn't get wet.
Variation(s): shelters

survive, *v.* To remain alive
Example: Humans need food and water to survive.
Variation(s): survives, survived, surviving

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**Essential Background Information or Terms**		10
	Domain Introduction		
	Purpose for Listening		
Presenting the Read-Aloud	**What Is a Habitat?**		15
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Shelter	[This exercise requires advance preparation.]	5
	Complete Remainder of the Lesson Later in the Day		
Extensions	**Safari**	chart paper, chalkboard, or whiteboard	20
Take-Home Material	**Family Letter**	Instructional Masters 1B-1 and 1B-2	*

What is a Habitat?

1A

Introducing the Read-Aloud *10 minutes*

Essential Background Information or Terms

Tell students that you want them to think about some things that are living and nonliving. How do they know if something is living or nonliving?

Explain to students that all living things need food and water. People, plants, and animals are all living things because they all need food and water to stay alive. Most living things also grow and change during their lives and do not always look exactly the same. Living things can also reproduce, or make new living things that look like them.

Have students name things that are living, and then have them name things that are nonliving. Be sure to reinforce the fact that nonliving things do not need food or water because they are not alive. Explain to students that you are going to read a list of things—some of which are living and some of which are not. If what you name is a living thing, students should say, "That is a living thing." If what you name is not a living thing, students should say, "That is a nonliving thing."

- dog (That is a living thing.)
- tree (That is a living thing.)
- rock (That is a nonliving thing.)
- cat (That is a living thing.)
- chalkboard (That is a nonliving thing.)

Domain Introduction

Explain to students that living things generally live in a place that is just right for them. Tell students that over the next several weeks they will learn about many animals and plants and the places in which they live.

Show image 1A-1: Rattenborough the explorer

Explain to students that an explorer rat named Rattenborough will introduce them to many different animals and plants and the places where they live. Point to Rattenborough in the picture.

Purpose for Listening

Tell students to listen to find out more about why plants and animals live where they do.

Presenting the Read-Aloud — **15** *minutes*

What Is a Habitat?

Show image 1A-1: Rattenborough the explorer

Greetings, fellow adventurers. You are here to learn something new and, believe it or not, I'm here to teach it to you. I know you may be wondering what you could possibly learn from a rat climbing out of a dumpster, but I am Rattenborough, the famous rat adventurer.

I travel the world looking at plants and animals and all the different places they call home. I'm going to take you on a special adventure all around the world. You're going to learn about some amazing and incredible places and animals. And we're going to start our exciting journey right here! I know, I know—it doesn't look like much, but it's special to me, and it has everything I need.

Show image 1A-2: Alleyway

Welcome to my home. This is the alleyway where I live. Take a look around. What do you see? [1] There are trash cans; litter; boxes; drains and dripping pipes; old buildings and gutters. It's a perfect home for a rat. It has everything I need to live.

All **living** things need food and water to **survive.** [2] Animals, like me, also need **shelter.** [3] So, animals need food, water, and shelter to stay alive. My food comes from these trash cans and the litter on the street; my water comes from the gutters, drains, and pipes; and my family and I have a shelter down under some steps nearby. All of these things make up my **habitat.** A habitat is a place where an animal or plant lives that has food, water, and shelter. It's true that my home the alleyway is not considered a natural habitat, like a forest or a pond; but with so many humans using up so much of the earth's natural resources, some animals have been forced to survive in human-made habitats.

What were those three things again? [4] If a place lacks any of these three things, then it's not a good habitat.

1 [Ask students to name what they see in the picture.]

2 *Survive* means to continue living or to stay alive.

3 A shelter is something that protects from the weather or from danger. A house or an apartment can be a shelter; a tree can also be a shelter.

4 [Pause for students to reply, naming food, water, and shelter.]

Animals and plants usually live in habitats that are just right for them. Just as people can't live underwater or in the air, plants and animals can't all live in the same sorts of places. You don't hear about elephants living near the North Pole on all that ice, and you definitely don't hear about polar bears living in the desert! Pumpkins don't grow in the sea, and fish don't live in trees.

Show image 1A-3: Friendly climate for rats

I can tell you firsthand that rats can't live just anywhere in the world. I don't like the weather to be too cold, and I need to live in a place where food is easy to find! That's why I like my cozy little shelter under the steps: it is warm enough for my family and me, there is always plenty of water, and there is always a good supply of food in the trash.

Show image 1A-4: Park

How about we have a look around? You might have a park like this somewhere near your neighborhood.[5] People like to spend time playing and relaxing in this park. But it's a habitat for many other things, too! The grass, trees, flowers, and bushes in this park need food and water to live.[6]

5 Here the word *park* means a piece of public land in or near a town or city that is used for recreation and exercise. The word *park* can also mean to leave a car, truck, or motorcycle in a particular place.

6 Have you ever seen a park? What kinds of plants live in the park habitat in your neighborhood?

Show image 1A-5: Park animals

The animals that live in the park share it as a habitat. That includes the pigeons that fly around looking for crumbs to eat; the squirrels, owls, and chipmunks that live in those trees; the bees, fireflies, and mosquitoes buzzing about; the raccoons and opossums that come out at night; and even the frogs and fish in the pond nearby.[7]

7 Where do you think these animals might find food, water, and shelter in the park habitat?

8 What do you see in this picture?

Show image 1A-6: Arctic landscape[8]

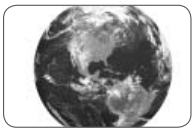
This is a picture of a place called the Arctic. Do you think you could live easily in the Arctic with its very cold temperatures and snow-covered ground? Not many things can live there, but later I'm going to show you some incredible plants and animals that do live in the Arctic.

9 What do you see in this picture?

Show image 1A-7: Several places where people have made habitats[9]

Most animals have to live in habitats that are specific to them. But you human beings are very clever: you can build habitats for yourselves! If you want to live in the desert, where there isn't much water with which to grow food or to drink, you can build a pipeline to bring you water for watering crops or for drinking. You can have food transported to the desert by road or rail because it would be difficult to grow food in the desert, and you can build houses for shelter so you don't have to sleep in the sand.[10] In fact, people like you have been able to live in extremely hot, cold, and dry places.

10 You heard about ancient Egyptians and Mesopotamians living in the desert in the Middle East. How did they farm, grow crops, and survive in the desert? (built canals to bring water from nearby rivers)



Show image 1A-8: Earth

We're going on an adventure that will take us all over our amazing planet Earth. Over the next several weeks, I'm going to show you some fascinating animal and plant habitats that might be quite different from yours. You'll see some wonderful and unusual places where things can live.

Show image 1A-9: Rattenborough packing his gear

I can't wait to show you all these interesting places, but first I have a lot to pack. Because we're going all over the world, I'm going to need a backpack full of gear. So hold on to your whiskers—I mean hats—and get ready for a marvelous adventure!

Discussing the Read-Aloud **15** *minutes*

Comprehension Questions **10** *minutes*

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Literal* What is a habitat? (a place that has food, water, and shelter for a living thing)
2. *Inferential* Describe Rattenborough's habitat. (lives under steps in an alley; gets food from the trash cans; gets water from the drains and pipes)
3. *Inferential* Would Rattenborough be able to live in his habitat without food, water, or shelter? Why or why not? (No, he needs food, water, and shelter to survive because he is a living creature.)
4. *Inferential* Why can't all plants and animals live in every place on earth? (They have to live in a place that provides the kind of food, water, and shelter that they need to stay alive. Animals and plants live in a place that is just right for them.)
5. *Evaluative* Describe your habitat. Where do you find food, water, and shelter in your habitat? (Answers may vary.)

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

6. *Evaluative* *Think Pair Share:* Compare your habitat with Rattenborough's habitat. Think about food, water, and shelter. How is your habitat the same and/or different? (Answers may vary.)

7. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Shelter

5 *minutes*

1. In the read-aloud you heard that "animals need food, water, and *shelter* to stay alive."
2. Say the word *shelter* with me.
3. A shelter is something that protects you from the weather or from danger.
4. The two friends used the tree as a shelter when it began to rain.
5. What other kinds of things could you use as a shelter? Try to use the word *shelter* when you talk about it. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "A _____ could be used as a shelter."]
6. What's the word we've been talking about?

Use a *Making Choices* activity as a follow-up. Directions: I am going to name a few items and you should decide if it could be a shelter or not. If you think it could be a shelter, say, "That's a shelter." If you don't think it could be a shelter, say, "That's not a shelter."

1. a house (That's a shelter.)
2. a pencil (That's not a shelter.)
3. school (That's a shelter.)
4. a cave (That's a shelter.)
5. a chair (That's not a shelter.)

Complete Remainder of the Lesson Later in the Day

What is a Habitat?

1B

Extensions

20 minutes

Safari

Hold a supervised local "safari" in which you and students explore the habitat surrounding your school. Point out animals and plants living in the habitat. Places to look include holes and cracks in pavement, along fences and walls, and around buildings. Compare and contrast all the different types of plants you see, including trees, weeds, grasses, flowers, bushes, etc. Have students identify things that animals might eat and things that might be shelters for animals.

Back in the classroom, have each student make a list on a T-Chart using pictures or words for what they observed, labeling the chart *Food* on one side and *Shelter* on the other side. Talk with students about what they discovered. Record their observations in a class list on chart paper, a chalkboard, or a whiteboard. Ask students if they think the area around their school is a good habitat for animals. Which animals? Why or why not?

If the weather is not conducive for a safari, you may choose to read a domain-related trade book as a substitute. You may wish to hold the safari on a later date with more favorable weather.

Take-Home Material

Family Letter

Send home Instructional Masters 1B-1 and 1B-2.

Animals of the Arctic Habitat

2

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain what a habitat is
- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Identify the characteristics of the Arctic tundra habitat
- ✓ Identify the characteristics of the Arctic Ocean habitat
- ✓ Explain how Arctic animals have adapted to the Arctic tundra and Arctic Ocean habitats

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Describe an illustration of the Arctic landscape and use pictures and detail in "Animals of the Arctic Habitat" to describe the read-aloud's key ideas (RI.1.7)
- ✓ With assistance, categorize and organize information about the plants and animals in the Arctic habitat (W.1.8)
- ✓ Describe the Arctic habitat and plants and animals that are found in that habitat with relevant details, expressing ideas and feelings clearly (SL.1.4)
- ✓ Add drawings to descriptions of the Arctic tundra and the Arctic Ocean to clarify ideas, thoughts, and feelings (SL.1.5)

- ✓ Prior to listening to "Animals of the Arctic Habitat," orally identify what they know and have learned about habitats
- ✓ Share writing with others

Core Vocabulary

adapted, *v.* Changed to suit a special purpose or situation; adjusted
Example: Over the years, animals in the Arctic have adapted to the cold.
Variation(s): adapt, adapts, adapting

burrow, *v.* To dig a hole or tunnel
Example: Rabbits burrow underground to make their home.
Variation(s): burrows, burrowed, burrowing

exposed, *v.* Left unprotected; put out in the open with no covering
Example: His bike, which he stored outside, became rusty because it was exposed to the rain.
Variation(s): expose, exposes, exposing

tundra, *n.* A treeless area in a specific part of the Arctic
Example: Plants in the tundra do not grow very tall, because it is very cold there.
Variations: none

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**		10
	Where Are We?		
	Purpose for Listening		
Presenting the Read-Aloud	**Animals of the Arctic Habitat**		15
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Exposed	various classroom objects; cloth or paper	5
	Complete Remainder of the Lesson Later in the Day		
Extensions	**Drawing the Read-Aloud**	drawing paper, drawing tools	20
	Vocabulary Instructional Activity: Adapt	Image Cards 1–3	

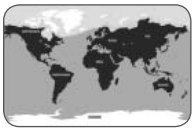
Animals of the Arctic Habitat

2A

Introducing the Read-Aloud — *10 minutes*

What Have We Already Learned?

Ask students if they remember what the word *habitat* means. If students have trouble remembering, remind them that a habitat is a place that has food, water, and shelter for a living thing, such as an animal or plant. Ask students to describe what they remember about Rattenborough's habitat.



Where Are We?

Show image 2A-1: Map of the world with the Arctic region highlighted

Explain to students that today they will be learning about a place called the Arctic. Point to the Arctic. Explain to students that the Arctic is the region around the North Pole, which is not part of a single continent. Explain that, in this region, there are areas of land, called the Arctic tundra, and a great deal of water known as the Arctic Ocean.

Purpose for Listening

Explain to students that today they will hear about some plants and animals that live in the Arctic region, both on land and in the water. Tell students to listen carefully to find out which plants and animals live in the Arctic tundra and in the Arctic Ocean and how they survive.

Presenting the Read-Aloud **15** *minutes*

Animals of the Arctic Habitat

Show image 2A-2: Rattenborough in Arctic

Hello again, Rattenborough the adventurer here to take you on a tour of one of the coldest habitats on earth: the Arctic **tundra.** In the tundra, there aren't very many plants. In fact, there are no trees at all, and a rat like me has to wear long johns and mittens. [1]

1 What do you see in this image?

The wind here is incredibly strong, which makes the air feel even colder. The ground is frozen and nearly everything is covered in ice. In the winter, daylight lasts only a few hours, and at times the sun does not come out at all. Some ice will still be here in the summer, but in the summer, the top layer of ice melts so that the ground gets wet and muddy. The temperatures here are so low that most people and animals would freeze. All of these things make the Arctic tundra one of the least friendly habitats on Earth for plants and animals.

Show image 2A-3: Arctic plants

Some plants and animals can only live in the Arctic tundra in the summer months when the temperature is warmer, but some are able to live there all year long. Arctic plants grow very close together and do not grow very tall, which keeps them from being blown away by the Arctic winds. The kinds of plants that can live in the Arctic tundra are mosses and different types of grasses. For once, I'm one of the tallest things around!

Show image 2A-4: Muskox

The animals that call the Arctic tundra habitat home all year round have **adapted** to the harsh conditions. When an animal has adapted to a habitat, that means it has changed over the years and now has special things that help it live in that habitat. For example, many animals in the Arctic have adapted by growing heavy fur coats that help them stay warm in the cold temperatures. [2] This creature is called a muskox. The muskox's

2 What do you do to adapt when the weather outside is cold?

long, shaggy coat has an extra layer of hair underneath that keeps him warm when the temperature is cold enough to turn a rat into a popsicle, and it sheds its extra coat of hair in the warmer, summer months.

Muskoxen travel in herds so they can huddle together for added warmth. Their hooves [3] are very wide to keep them from slipping on the snow and ice. In the winter, muskoxen use their sharp hooves to dig under the snow to find plants to eat.

3 which are at the bottom of some animals' feet

4 Do you have any idea why Rattenborough wants to stay hidden from the wolverine? (Wolverines eat small animals, including rats.)

Show image 2A-5: Wolverine

Here comes an animal I want to stay hidden from. This is a wolverine. [4] The wolverine uses its fur coat to keep nice and warm. Like the muskox, the wolverine has large paws to help him move across the snow and that come in handy when he's trying to catch food.

Show image 2A-6: Caribou

These animals are called caribou and are part of the deer family. They are sometimes called reindeer. These caribou are traveling in a huge herd, which helps to protect them against attack by other animals.

Caribou hair traps air, which helps keep these animals warm. Their hooves change depending on the time of year, so they can walk and run in mushy, wet terrain, or in hard, icy terrain. Male caribou also have antlers to help them dig for grass in the snow.

5 What do you see in this picture?

Show image 2A-7: Arctic fox [5]

This Arctic fox also has a coat that changes during the winter from a brown summer coat into this very thick, white fur to help the fox blend into its surroundings. The fur also covers its feet so it can walk on snow and ice. Thanks to the fox's fur, it can hide and sneak up on birds, hares, and rodents like me!

Show image 2A-8: Arctic hare

The Arctic hare's white coat becomes much heavier in the winter. Its ears are smaller than those of other hares, meaning less of its body is **exposed** to the cold.[6] In other words, this is no place for critters with long dangly ears, unless they have long dangly earmuffs to keep those ears from freezing! The hare's white coloring also helps it hide in the snow, and its back feet are wide and large, like small snowshoes, so it can run fast in the snow.

6 When something is exposed, it is out in the open, with nothing covering it. In the Arctic, any part of your body that is exposed would be cold.

Show image 2A-9: Rattenborough in the seascape

There are other kinds of habitats in the Arctic besides the tundra, and different kinds of plants and animals live in these other habitats. The Arctic Ocean is a habitat rich in sea life and animals that rely on the sea for their food. The water is so cold in the Arctic Ocean that most living creatures would be able to stay alive only a few minutes in it.

Show image 2A-10: Walruses

Animals such as the walrus call the Arctic Ocean home. These huge creatures just love the icy water and can swim around for a long period of time!

Walruses have adapted to life in the Arctic Ocean by storing blubber under their skin.[7] Blubber prevents heat from escaping from their bodies. Walruses also have long teeth, called tusks, which they use almost like arms to pull themselves up out of the water and onto the ice.

7 Blubber is fat that some animals have under their skin to stay warm.

Show image 2A-11: Seals

Look at these cute animals. They are seals. Seals have blubber under their skin, just like walruses. Some types of seals are born covered with a layer of white fur to keep them warm until they develop blubber.

Seals are incredible swimmers! Like fish and walruses, seals don't have arms and legs. Instead, seals have flippers, and they swim by wiggling their bodies from side to side, using their flippers

to steer. They swim very fast, so they catch plenty of tasty fish. Thankfully, they don't eat rats!

Show image 2A-12: Polar bear

Here comes a polar bear! Look out! Let's hide behind this rock, and I'll tell you all about this amazing creature.

The polar bear is perhaps the best known of all the animals living around the Arctic Ocean. These astonishing animals have adapted incredibly well to the harsh, Arctic habitat.

Polar bears are the largest bears in the world. Male polar bears weigh up to 1700 pounds—that's probably heavier than everyone in your class put together, including your teacher. And polar bears grow up to ten feet from head to toe. Yikes!

Polar bears are covered with a heavy coat made up of two layers of fur, and they have a layer of blubber under their skin. Their ears and tails are very small so that not too much of their bodies are exposed to the cold weather.[8] It's a good thing they have all that fur and blubber and sharp claws, because polar bears spend most of their life living on sea ice, chunks of ice that float in the Arctic Ocean. Sometimes polar bears take a dip in the icy Arctic water to swim from one chunk of ice to another, and they have webbed paws, sort of like a duck's feet, to help them swim. They use those mighty paws to hunt their favorite food—seals. Like all living things, polar bears need water to survive, and they get that water from melted snow and ice.

8 What does *exposed* mean?

Show image 2A-13: Polar bear with cub

Even though adult polar bears spend most of their time living on sea ice, polar bear babies, or cubs, are born on land. Their mothers, female polar bears, **burrow** in the snow to make a den.[9] They will then hide in the den while they have their babies. They stay in the dens with their young all winter, and in the spring they finally come out. The cubs stay with their mothers for almost two years to learn hunting and survival skills before leaving home.

9 That means they dig a hole in the snow to make a shelter.

10 or very, very cold

Now, speaking of home, I really must go. It's absolutely frigid[10] here, and my whisker warmers just aren't doing the job! We've learned a lot about the Arctic habitat and the animals that have managed to adapt and survive here. I think our next stop should be somewhere warmer, don't you? Remember that even habitats as extremely cold as the Arctic tundra and Arctic Ocean can be full of life. Now, it's not easy for me to stay hidden in all this snow, and I can barely move with all these clothes on, so I'm getting out of here before I'm spotted by that Arctic fox. See you next time!

Discussing the Read-Aloud ***15** minutes*

Comprehension Questions **10** *minutes*

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Inferential* Describe the Arctic tundra habitat. (The Arctic tundra is very cold and windy. The ground is frozen and covered with ice during the winter, when there is very little sunlight. In the summer, the top layer of ice melts, and the ground gets wet and muddy. It has no trees, or is treeless.)
2. *Inferential* Describe the Arctic Ocean habitat. (very cold water; too cold for many living creatures to live in for very long; covered with a great deal of ice)
3. *Evaluative* Why is it important for living creatures to adapt to the environment in which they live? (Answers may vary, but should include the fact that they need to adapt to be able to survive in the climate and find sufficient food, water, and shelter.)
4. *Inferential* What kind of plants grow in the Arctic tundra? (mosses and grasses) How have these plants adapted to the Arctic tundra? (grow close together, grow low to the ground)

5. *Inferential* How have walruses, seals, and polar bears adapted to keep warm? (They have fur coats and a layer of blubber beneath their skin.)

6. *Inferential* How have walruses adapted so that they can move from the water of the Arctic Ocean onto chunks of floating ice in and near the Arctic Ocean? (They have long tusks that they use to pull themselves out of the water and onto the ice.)

7. *Inferential* Describe how polar bears have adapted to live near the Arctic Ocean. (layer of blubber, two layers of fur, small ears and tail, sharp claws, webbed paws)

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

8. *Evaluative* *Think Pair Share:* Remember that a habitat for an animal or plant must provide food, water and shelter. Is the Arctic a good habitat for the polar bear? (yes) Why or why not? (The polar bear can find food [seals], water [snow], and shelter [dens].)

9. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Exposed *5 minutes*

1. In the read-aloud you heard, "[The Arctic hare's] ears are smaller than those of other hares, meaning less of its body is *exposed* to the cold."
2. Say the word *exposed* with me.
3. When something is exposed, it means that it is unprotected or is out in the open and can be seen.
4. Because I didn't have my raincoat with me, my clothes got very wet because they were exposed to the rainy weather.
5. What parts of a plant are usually exposed? What parts of a plant are normally not exposed? Try to use the word *exposed* when you talk about it. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "A part of a plant that is exposed is the _____."]
6. What's the word we've been talking about?

Use a *Discussion* activity for follow-up. Directions: I will show you some objects in our classroom that are partially covered with a piece of paper or cloth. I will call on several of you to describe the part of the object that is exposed and the part that is not exposed. Be sure to use the word *exposed* in your description.

Complete Remainder of the Lesson Later in the Day

Animals of the Arctic Habitat

2B

Extensions — *20 minutes*

Drawing the Read-Aloud

Give students a few minutes to share what they have learned about the Arctic. Have them fold a piece of paper in half. On one half they should draw a picture of the Arctic tundra with some of the plants and animals they learned about, and on the other half they should draw the Arctic Ocean and some of the animals that live there. You may wish to ask some questions to help students brainstorm ideas for their drawings:

1. Will your drawing of the tundra have just a few plants or lots of plants?
2. Will the plants in the tundra be short or tall or both?
3. What colors will the plants be?
4. Will there be animals in your drawing of the tundra? If so, what kinds of animals?

You may wish to ask similar kinds of questions regarding the Arctic Ocean.

After students have had time to draw, ask them to write one sentence to describe each of their pictures. Tell them to use their sound/letter knowledge to sound out and write out their sentences. Help struggling students by dictating the spelling of difficult words. You may need to do a shared writing activity with some students. (They dictate while you write.)

Conclude by having students share their drawings and sentences with a partner or with the class. As students talk about their drawings, you may repeat and expand upon each response using richer and more complex language, including, if possible, any read-aloud vocabulary.

Vocabulary Instructional Activity

Word Work: Adapt

1. In today's read-aloud you heard, "We've learned a lot about the Arctic habitat and the animals that have managed to adapt and survive here."
2. Say the word *adapt* with me.
3. *To adapt* means to change or adjust to a certain condition to be able to survive in that environment.
4. The animals in the harsh Arctic habitat have had to adapt to very cold weather.
5. You heard about some types of animals which have developed different ways to adapt to their Arctic habitat. What people have you learned about who needed to adapt in order to survive? For example, the Egyptians adapted to the flooding Nile each spring by building their homes above the river level. Take a moment to think about the Aztec and the canals they created in swampy lands, or King Nebuchadnezzar growing gardens in a desert. Try to use the word *adapt* when you tell your neighbor about it. [Ask two or three students. If necessary, guide and/or rephrase students' responses: "_____ adapted to _____ by _____"]
6. What's the word we've been talking about?

Use an *Image Review* activity for follow-up. Directions: I will show you images of certain animals you heard about today. Tell me some of the ways each animal has been able to adapt to the Arctic habitat. Be sure to use the word *adapt* in your answer.

1. [Show Image Card 1 (Arctic Hare).] How has this Arctic hare been able to adapt to the Arctic? (It has been able to adapt because it has white fur so it blends in with the snow; its fur gets thicker in the winter; its ears are smaller; its back feet are wide and large, enabling it to run fast in the snow.)
2. [Show Image Card 2 (Caribou).] How have these caribou been able to adapt to the Arctic? (They have been able to adapt because they travel in a large herd; have thick hair that traps

air allowing them to stay warm; have hooves that change along with changing land; and have antlers that help them dig for grass in the snow.)

3. [Show Image Card 3 (Arctic Fox).] How has this Arctic fox been able to adapt to the Arctic? (It has been able to adapt because it has a coat that changes to white during the winter so it blends in with the snow, and it has fur on its feet so it can walk on the snow and ice.)

Animals of the Sonoran Desert Habitat

3

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain what a habitat is
- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Identify the characteristics of the desert habitat
- ✓ Explain how desert animals have adapted to the desert habitat
- ✓ Classify animals on the basis of the types of foods that they eat (herbivore, carnivore, omnivore)

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Describe an illustration of a saguaro cactus and use pictures and detail in "Animals of the Sonoran Desert Habitat" to describe the read-aloud's key ideas (RI.1.7)
- ✓ Compare and contrast the Arctic and the Sonoran Desert habitats (RI.1.9)
- ✓ With assistance, categorize and organize information about herbivores, carnivores, and omnivores (W.1.8)
- ✓ Ask and answer *where* questions orally, requiring literal recall and understanding of the details or facts from "Animals of the Sonoran Desert Habitat" (SL.1.2)

- ✓ Describe the Sonoran Desert habitat in "Animals of the Sonoran Desert Habitat" with relevant details, expressing ideas and feelings clearly (SL.1.4)
- ✓ Sort words and ideas into the categories of *herbivore, carnivore,* and *omnivore* to gain a sense of the concepts the categories represent (L.1.5a)
- ✓ Define the words *herbivore, carnivore,* and *omnivore* by category and by one or more key attributes (L.1.5b)
- ✓ Prior to listening to "Animals of the Sonoran Desert Habitat," orally identify what they know and have learned about habitats and adaptation
- ✓ Prior to listening to "Animals of the Sonoran Desert Habitat," orally predict whether animals that live in the desert are similar to animals that live in the Arctic
- ✓ Identify new meanings for the word *fan* and apply them accurately

Core Vocabulary

camouflage, *v.* To blend in or hide in the natural surroundings
Example: The green color of leaf insects helps to camouflage them, or hide them, in the forest.
Variation(s): camouflages, camouflaged, camouflaging

carnivore, *n.* An animal that consumes other animals
Example: A polar bear is a carnivore that eats seal and fish.
Variation(s): carnivores

herbivores, *n.* Animals that eat only plants or plant products
Example: My pet rabbits are herbivores and eat only plants.
Variation(s): herbivore

nocturnal, *adj.* Active at night
Example: Bats are nocturnal animals that come out at night to hunt.
Variation(s): none

omnivore, *n.* An animal that eats both plants and other animals
Example: A grizzly bear is an omnivore that eats fish as well as berries.
Variation(s): omnivores

scavengers, *n.* Animals that eat meat and waste left by other animals
Example: Those rats are quite the scavengers; they ate all the leftovers in the alley.
Variation(s): scavenger

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**		
	Making Predictions About the Read-Aloud		10
	Where Are We?		
	Purpose for Listening		
Presenting the Read-Aloud	**Animals of the Sonoran Desert Habitat**		15
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Camouflage		5
 **Complete Remainder of the Lesson Later in the Day**			
Extensions	**Herbivore, Carnivore, Omnivore**	Instructional Master 3B-1; three blank sheets of paper per student; scissors; glue or tape	20
	Multiple Meaning Word Activity: Fan	Poster 2M (Fan)	

Animals of the Sonoran Desert Habitat

3A

Introducing the Read-Aloud

***10** minutes*

What Have We Already Learned?

Ask students to define the word *habitat.* Students should explain that a habitat is a place that has food, water, and shelter for the animals and plants that live there. Ask students to characterize the weather and temperature of the Arctic tundra and Arctic Ocean. (very cold in the winter; colder than most other places on Earth even during summer; and often windy so that it feels even colder) Ask students to define the word *adapt.* Remind students that many of the adaptations made by the animals living in both the Arctic tundra and the Arctic Ocean are changes that have come about to help the animals stay warm when it gets very cold. (thick fur, blubber, etc.)

Making Predictions About the Read-Aloud

Now remind students that at the end of the last read-aloud, Rattenborough mentioned that he would be taking them to a warmer place. Explain to students that today they will be learning about a habitat called the desert and about some of the animals that live in that habitat. Tell students that there are deserts all over the world.

Show image 3A-1: The desert

Tell students that this is a picture of a desert. Ask them to describe what they see in the illustration and how it looks different from the pictures they have seen of the Arctic. Explain that the temperature found in a desert is almost exactly opposite of that found in the Arctic: the Arctic is very cold, whereas deserts are usually very hot; the Arctic is wet and muddy in the summer, whereas the desert is very dry and sandy.

Now ask students if they think the same animals that live in the Arctic live in the desert. Why or why not? Then have students predict how the animals that live in the desert might be different from the animals that live in the Arctic.

Where Are We?

Show image 3A-2: World map with the southwest of the United States and the northwest of Mexico highlighted

Tell students that deserts are located in many different regions of the world, but today they are going to hear about a particular desert that is located in the northwestern part of Mexico and the southwestern part of the United States—in parts of the states of Arizona and California. (Point to this area on the map.) Tell students that the particular desert located here is called the Sonoran Desert.

Purpose for Listening

Tell students to listen to find out more about the Sonoran Desert and how animals have adapted to living there.

Presenting the Read-Aloud **15** *minutes*

Animals of the Sonoran Desert Habitat

Show image 3A-3: Rattenborough in desert

After nearly freezing and almost becoming a polar bear snack in the Arctic, I thought we should go someplace where my whiskers and tail could thaw out and warm up, so I've brought you to the desert. There are many deserts all over the world. You know you're in a desert when it doesn't rain very much. Many deserts can also be very hot. Because it's so hot and dry, only certain types of plants and animals can live there.

Show image 3A-4: The Sonoran Desert

Welcome to the Sonoran Desert in the southwestern part of the United States and the northwestern part of Mexico. The temperature is quite hot during the day, and it doesn't rain very much. The heat and lack of rain make it hard for some plants and animals to live in the desert. They must all be specially adapted to live in the hot weather and survive with very little rain.

How do they do it? Some plants can save and store water inside their plant parts when it does rain. Other plants grow only in shady areas near mountains or rocks.

Because there are very few plants that can be used as shelter, the animals that have adapted to living in the desert often seek shelter underground and make their homes under the sand. Living underground helps them stay cool when it gets hot, and it keeps them hidden from other animals that may want to eat them for lunch!

Show image 3A-5: Saguaro cactus [1]

Ouch! What did I walk into? Aha! Here is one plant that lives in the Sonoran Desert. The saguaro (sa-*WAHR*-oh) cactus is the world's largest cactus. Cacti don't have leaves; they have prickly spines instead, which is exactly why it hurt so much to touch this

1 What do you see in this image?

one![2] The incredible saguaro lives for up to two hundred years, and in that time can grow as high as a house and can weigh as much as several cars!

2 The word *cacti* is the plural for *cactus*—one cactus, but many cacti.

The most amazing thing about the saguaro is that it is a habitat in itself. That's right. Not only does it manage to live and thrive in the desert habitat, but just by being there, it provides food, water, and shelter to many different animals. Let me get my climbing gear out—and some gloves to protect me from these sharp spines—and I'll meet you at the top.

Show image 3A-6: Cacti

You already know that it hardly ever rains in the desert, but when it does, the saguaro cactus saves and stores huge quantities of water in its roots and stems.[3] The cactus saves the extra water and uses it to survive during those times when it is very dry and does not rain.

3 [Point to the stem of the cactus as you talk about it.]

Show image 3A-7: Cactus bloom

In the spring, white flowers grow on the saguaro. At night, when the desert cools down, these flowers open to show sweet nectar, which butterflies, bats, and birds feed on before the flowers close the next day when it once again becomes very hot. In the summer, red fruit begins to grow on the saguaro. Many animals eat the fruit of the cactus.

Show image 3A-8: Gila woodpecker

Here is an interesting bird called a Gila (*HEE*-lah) woodpecker. The Gila pecks holes into the soft cactus with its beak to make a nest for its eggs.

The Gila woodpecker is an **omnivore.** An omnivore is an animal that eats plants as well as other animals. Gilas feed on cactus fruit and berries as well as insects that have invaded the saguaro. Thankfully, I brought a sandwich, so I won't have to join these Gilas for a buggy lunch!

It really is way too hot for a regular rat like me to live here. I'm glad I brought my <u>fan</u> with me.[4] Interestingly enough, birds like

4 Here the word *fan* means an object that is used to move air to make people or things cooler. The word *fan* also can mean a person who likes or admires someone or something, such as a sports team, in an enthusiastic way.

this Gila woodpecker can live in the desert habitat because their feathers help protect them from the hot desert sun by trapping cool air next to their skin. Still, most birds only go out to feed in the early morning or evening when it's cooler outside. From noon to late afternoon, many of these birds seek shelter in the holes that they have dug in a cactus or in other shady places.

Show image 3A-9: Elf owl

Here's another bird that makes its home in the saguaro cactus: the elf owl. The elf owl, the world's smallest owl, is only five inches long—that's just a bit bigger than one of your hands. It moves into nests that have been abandoned by Gila woodpeckers.[5] The elf owl, like most owls, is **nocturnal,** which means that it rests during the day and wakes at night to hunt for food.

5 When something is abandoned, that means that it has been left for good.

The elf owl is also a **carnivore.** A carnivore is an animal that eats only other animals—no plants. It uses its large eyes to hunt in the dark night for bugs that live in the desert. Most owls eat mice and, I'm sad to say, rats. But I think I'm safe from the elf owl because I'm bigger than it is!

Show image 3A-10: Desert cottontail

Oh look, here comes a desert cottontail rabbit, another animal that lives in the Sonoran Desert. The desert cottontail looks a little like the Arctic hare we saw in the tundra, but it has larger ears and longer back legs.[6]

6 What are some ways the Arctic hare has adapted to the Arctic tundra? (has smaller ears; white fur to blend in; and larger, wider back feet)

Desert cottontail rabbits are **herbivores.** Herbivores are animals that eat only plants—no animals. The desert cottontail eats grass and even cacti.

Smaller animals like the desert cottontail always need to watch out for larger animals in the desert that might eat them. Many animals and plants are part of a cycle called the food chain. You will learn more about the food chain in the next read-aloud. Coyotes, for instance, like to eat rabbits. In fact, there's a coyote coming this way, so let's stay up here and watch it.

Show image 3A-11: Coyote

Coyotes are found all over the United States, including the Sonoran Desert. As you can see, the coyote has a light, tan-colored coat to help reflect the sun's rays and to **camouflage** it.[7] Coyotes are carnivores like the elf owls. Coyotes have very good senses of smell, hearing, and vision, and they can run very fast, which means they are excellent hunters. They are also **scavengers.**[8] Coyotes live in dens, which they make by burrowing into the ground. I think this one has smelled something, because he's just run off.

Now, I'm getting down from this cactus before another coyote comes along to make me its dinner! It seems like rats are on the menu everywhere I go!

7 To camouflage something means to make it blend in with its surroundings. The color of the coyote's fur blends in with the color of the desert sand so that it is difficult for other animals to see the coyote in the desert background.

8 Scavengers are animals that eat meat and waste left by other animals.

Discussing the Read-Aloud ***15** minutes*

Comprehension Questions **10** *minutes*

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Evaluative* Were your predictions about whether desert animals are similar to Arctic animals correct? Why or why not? (Answers may vary.)
2. *Inferential* Describe the weather and temperature of the Sonoran Desert. (dry, hot, not much rain)
3. *Inferential* Do many plants and animals live in the desert? (no) Why not? (It is hot and very dry.)
4. *Evaluative* If you were to give someone directions on how to prepare to spend time in the desert, what would you tell him or her to take for supplies? (Answers may vary, but may include: water, food, sunscreen, sunglasses, a hat, etc.)

5. *Evaluative* How are the Arctic and the Sonoran Desert different? How are they the same? (The weather and temperature are very different—the Arctic is very cold; the Sonoran Desert is very hot. Also, the ground in the Arctic is covered with lots of ice, and the desert is covered with sand. One way that the two habitats are similar is that the animals and plants that live in each habitat must adapt to the very difficult conditions of each habitat. So there are not many plants and animals in either the Arctic or the desert.)
6. *Inferential* How do animals find shelter in the desert? (underground, or in holes they make in plants like the saguaro cactus)
7. *Inferential* How is the saguaro cactus adapted to live in the desert? (When it rains, it saves and stores lots of water that it can use during dry weather when it is not raining at all.)
8. *Inferential* How are animals in the desert adapted to living there? (come out at night, make shelters underground, etc.)
9. *Literal* Which animal that you heard about is nocturnal; what does that mean? (elf owl; sleeps during the day and comes out at night)

[Please continue to model the *Question? Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

10. *Evaluative* *Where? Pair Share:* Asking questions after a read-aloud is one way to see how much everyone has learned. Think of a question you can ask your neighbor about the read-aloud that starts with the word *where.* For example, you could ask, "Where does today's read-aloud take place?" Turn to your neighbor and ask your *where* question. Listen to your neighbor's response. Then your neighbor will ask a new *where* question, and you will get a chance to respond. I will call on several of you to share your questions with the class.
11. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Camouflage *5 minutes*

1. In the read-aloud you heard, "[T]he coyote has a light, tan-colored coat to... *camouflage* it."
2. Say the word *camouflage* with me.
3. To *camouflage* something means to hide it against its natural surroundings or background. Often the color of the object or animal is similar to the background, which makes it hard for other animals to see it.
4. The Arctic hare's white coat serves to camouflage it in the snowy Arctic tundra.
5. What types of things could be camouflaged in green grass? [Ask two or three students. If necessary guide and/or rephrase their answers "A _____ could be camouflaged in the grass." It may help to point out that because grass is green, objects that might be camouflaged by grass would probably be small, green objects.]
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: I will describe an object to you. You should decide how you could camouflage that object. For example, if I say "a green leaf," you would say, "I could camouflage a green leaf by placing it on green grass." (Answers may vary for all.)

1. a white piece of paper (I could camouflage that by placing it on a white floor.)
2. a black cat (I could camouflage that by placing it in front of a blackboard.)
3. an Arctic hare (I could camouflage that by placing it on a snowy surface.)
4. a yellow pencil (I could camouflage that by placing it in a vase of yellow flowers.)

Complete Remainder of the Lesson Later in the Day

Animals of the Sonoran Desert Habitat

3B

Extensions

***20** minutes*

Herbivore, Carnivore, Omnivore (Instructional Master 3B-1)

Remind students that animals that eat only plants are called herbivores. Animals that eat other animals are called carnivores. Animals that eat both plants and other animals are called omnivores.

Have students examine the pictures on the worksheet. As they do so, provide the following information and ask the following questions:

1. [Point to the image on the top left.] This is a wolverine. It eats other animals. Is the wolverine a carnivore, herbivore, or omnivore?
2. [Point to the image on the top right.] This is a caribou. It eats grasses. Is the caribou a carnivore, herbivore, or omnivore?
3. [Point to the image in the second row on the left.] This is an Arctic hare. It eats plants. Is the Arctic hare a carnivore, herbivore, or omnivore?
4. [Point to the image in the second row on the right.] This is an elf owl. It eats other animals, such as bugs and rats. Is the elf owl a carnivore, herbivore, or omnivore?
5. [Point to the image in the third row on the left.] This is a Gila woodpecker. It eats plants as well as other animals. Is the Gila woodpecker a carnivore, herbivore, or omnivore?
6. [Point to the image in the third row on the right.] This is a squirrel. It eats plants as well as other animals. Is the squirrel a carnivore, herbivore, or omnivore?

Next have students cut out the images of the animals and sort them according to the three categories—herbivore, carnivore, and omnivore. Once they have sorted all the animals, have them glue

or tape the herbivores on one sheet of paper, the carnivores on another sheet of paper, and the omnivores on a third sheet of paper.

Talk with students about which animals they grouped together and why. Be sure to use the vocabulary words *herbivore*, *carnivore*, and *omnivore* as you talk to students about the way they have classified the animals. Encourage students to use the following format to identify each animal and categorize it: "A _____ is a(n) herbivore/carnivore/omnivore that eats plants/animals/both plants and animals."

Multiple Meaning Word Activity

Associated Phrase: Fan

1. [Show Poster 2M (Fan).] In the read-aloud you heard, "It really is way too hot for a regular rat like me to live here. I'm glad I brought my *fan* with me." [Have students hold up one or two fingers to indicate which image on the poster shows this meaning.]
2. *Fan* can also mean something else. *Fan* also means a person who likes or admires someone or something, such as a sport or sports team. [Have students hold up one or two fingers to indicate which image on the poster shows this meaning.]
3. [Point to the fan that is cheering at a sporting event.] With your partner, talk about what you think of when you see this kind of fan. I will call on a few partners to share what they came up with. Try to answer in complete sentences. (When I see this kind of fan, I think of cheering, football, team, etc.)
4. [Point to the fan that is a machine or device used to move the air and make things cooler.] With your partner, talk about what you think of when you see this kind of fan. I will call on a few partners to share what they came up with. Try to answer in complete sentences. (When I see this kind of fan, I think of summer, hot air, wind, etc.)

Animals of the East African Savanna Habitat

4

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Classify animals on the basis of they types of food they eat (herbivore, carnivore, omnivore)
- ✓ Identify the characteristics of the grassland habitat
- ✓ Explain how grassland animals have adapted to the grassland habitat
- ✓ Match specific plants and animals to their habitats

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Describe an illustration of the African savanna habitat and use pictures and detail in "Animals of the East African Savanna Habitat" to describe the read-aloud's key ideas (RI.1.7)
- ✓ Compare and contrast the savanna with the desert and Arctic habitats (RI.1.9)
- ✓ With assistance, categorize and organize information about the Arctic and Sonoran habitats and the animals that live in those habitats (W.1.8)
- ✓ Describe the East African Savanna habitat with relevant details, expressing ideas and feelings clearly (SL.1.4)

- ✓ Prior to listening to "Animals of the East African Savanna Habitat," orally identify what they know and have learned about the Arctic and Sonoran Desert habitats and animals

Core Vocabulary

coexist, *v.* To live peacefully together at the same time or in the same place
Example: The cat and dog were able to coexist in my grandmother's house.
Variation(s): coexists, coexisted, coexisting

hardy, *adj.* Able to survive in unfavorable or harsh conditions
Example: Cacti are hardy plants, able to survive the harsh conditions of the desert.
Variation(s): hardier, hardiest

predators, *n.* Animals that hunt and eat other animals
Example: Lions are large predators that hunt other animals living in the savanna.
Variation(s): predator

prey, *n.* An animal that is hunted by other animals
Example: Many grasshoppers hide in the grass of the savanna so they do not become prey to the birds flying overhead.
Variation(s): none

prickly, *adj.* Small and sharp
Example: The cactus's spines are prickly.
Variation(s): pricklier, prickliest

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**	Habitat Summary Chart; chart paper, chalkboard, or whiteboard [This exercise requires advance preparation.]	10
	Where Are We?		
	Purpose for Listening		
Presenting the Read-Aloud	**Animals of the East African Savanna Habitat**		15
Discussing the Read-Aloud	**Comprehension Questions**	Habitat Summary Chart	10
	Word Work: Prickly		5
	Complete Remainder of the Lesson Later in the Day		
Extensions	**Food Chain Game**	Image Cards 8, 10, 11	20
	Habitat Review	Image Cards 1–11; Habitat Posters	

Animals of the East African Savanna Habitat

4A

Introducing the Read-Aloud

***10** minutes*

What Have We Already Learned?

Prior to class, prepare the following Habitat Summary Chart on chart paper, a chalkboard, or a whiteboard:

Feature	***Habitat***		
	Arctic Tundra	**Arctic Ocean**	**Sonoran Desert**
Climate			
Availability of Water			
Ground or Surface			
Types of Plants			
Types of Animals			
Example of Animal Adaptation			

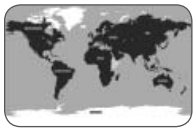
Use this chart as the basis for a conversation with students in describing the various habitats. Refer to the illustrations from the Flip Book, as needed, to stimulate responses. Use words—as well as symbols, when possible—to complete the chart. Remind students that they are not expected to read the words on the chart by themselves because they are still learning all the rules for decoding. Tell them that you are writing what they say so that you can remember their answers, and that you will read the chart to them.

The completed chart may look similar to the chart on the next page, although answers may vary.

Feature	*Habitat*		
	Arctic Tundra	**Arctic Ocean**	**Sonoran Desert**
Climate	cold and windy	cold and windy	hot and sunny
Availability of Water	some water in spring and summer as the top layer of ice melts	lots of salt water in the ocean (but animals need fresh water to drink)	very dry; not much rain
Ground or Surface	winter: ice and frozen ground; summer: wet and muddy ground with some ice	lots of salt water and chunks of sea ice	lots of sand
Types of Plants	moss and grasses		cacti
Types of Animals	muskox, wolverine, caribou, Arctic fox, Arctic hare	walrus, seal, polar bear	Gila woodpecker, elf owl, desert cottontail, coyote
Example of Animal Adaptation	heavy fur, special feet or hooves for walking on ice, fur color	blubber under skin to keep warm	being nocturnal, seeking shelter/shade when it is hot during the day; awake at night when it is cooler to look for food

Where Are We?

Tell students that today they will be learning about another type of habitat called a grassland habitat. Explain that there are many grassland habitats in the world, but that they will be learning about one particular one: the East African Savanna. Explain to students that the word *savanna* is another word for *grassland.*



Show image 4A-1: Map of the world with the East African savannas highlighted

Point to the East African Savanna on the map. Remind students where the Arctic tundra, the Arctic Ocean, and the Sonoran Desert are located as well. Show students where they live in relation to the East African Savanna.

Purpose for Listening

Tell students to listen to find out how the East African Savanna may be the same and/or different from the Arctic and the Sonoran Desert habitats.

Presenting the Read-Aloud **15** *minutes*

Animals of the East African Savanna Habitat

➧ **Show image 4A-2: Rattenborough in savanna**

Rattenborough, your intrepid [1] adventurer here, to show you something a little different. We've been talking about habitats—the places where plants and animals live—and we've spent time in three of the most extreme habitats in the world: the freezing Arctic tundra, the Arctic Ocean, and the scorching Sonoran Desert. Now, I've come to a habitat that should be of great interest to you. Some of the most famous animals in the world live here.

1 or fearless

➧ **Show image 4A-3: African savanna** [2]

Welcome to the East African Savanna. *Savanna* is another name for grassland, a wide-open, vast stretch of grass-covered land. You know you're in a grassland when there is a lot of grass around you, but not many trees or bushes.

2 What do you see in this image?

The East African Savanna has very warm weather all year round. However, it only has two seasons: the rainy summer, and the dry winter. The plants and animals that live here have had to adapt to these two very different kinds of weather in the summer and winter. Luckily, I brought my umbrella in case it starts to pour!

➧ **Show image 4A-4: African savanna grasses**

Boy, I can barely see a thing in all this grass—there's so much of it. As the name *grassland* suggests, grass is the most important plant growing in the savannas. The grasses are very **hardy,** which means they can survive the tough conditions of their habitat—long spells of dry, hot weather as well as heavy rainfall and flooding. The grass has adapted to these conditions by growing very deep roots. Even if the grass above ground is destroyed, the roots underground survive and the grass can grow back. This grass grows very quickly—as much as an inch per day! [3] The grass in your backyard might take a whole week to grow an inch. [4]

3 [Show students an example of an inch.]

4 Which grows faster—the grass in the savanna or the grass in your backyard?

Show image 4A-5: Zebras

Yikes, I'm surrounded by hooves! That's because grass is food for many of the larger animals, like elephants, zebras, gazelles, and antelope. They chew on grass all day long.

I don't think grass is all that tasty, to tell the truth, but these animals depend on the nutrients in the grass to survive. It's all they need to eat.[5] It would seem that because so many animals eat the grass in the savanna every day, there wouldn't be very much grass left after a while. But, remember that this grass grows back very quickly, so there's usually plenty for the different herbivores, like zebras and antelopes, to eat!

5 [Review the words *omnivore*, *carnivore*, and *herbivore*, and tell students to use one of these words to answer the following question.] What do we call all of these animals that eat only grass? (herbivore)

Show image 4A-6: Giraffe eating from acacia tree

Grass is not the only important source of food in the savanna. Many animals get their meals from the acacia [uh-*KEY*-shuh] tree. Giraffes, with their long necks and tongues, are able to eat twigs and leaves from the top of the acacia. Not only are giraffes' tongues long, they are also very tough. It is a good thing, too, because the twigs of the acacia tree are covered with sharp thorns that the giraffes eat along with the twigs and leaves![6]

6 [Review the words *omnivore*, *carnivore*, and *herbivore*, and tell students to use one of these words to answer the following question.] Which word best describes giraffes, because they eat plants like the acacia tree? (herbivore)

Show image 4A-7: Elephants

Elephants eat grass, and they like acacias, too. They rest in the acacia's shade and eat the acacia leaves, branches, and seeds. They even like to strip off the bark and chew on it.[7]

7 Elephants eat grass and parts of the acacia tree. Are elephants carnivores, herbivores, or omnivores? (herbivore)

Show image 4A-8: Acacia tree[8]

I think this acacia tree might be great to climb and get a better look at the savanna, but don't forget that it's covered in **prickly** thorns—ouch![9] Acacias have adapted well to their habitat. Acacias have small leaves that don't dry out as quickly as larger leaves would in the dry, hot months. The roots of an acacia grow very deep into the ground, which allows them to collect water from far underground when there is not much rainfall. And their

8 What do you see in this picture?

9 The thorns on the acacia tree are small and very sharp.

sharp thorns help keep some animals from eating too many of the branches. These trees are right at home in this habitat.

Show image 4A-9 Giraffe near a tree

Animals living in the savanna have adapted to their habitat in many ways. Some animals, like the giraffe, have long, powerful legs so that they can quickly run away from **predators,** animals that hunt and kill other animals. Their long legs also help them travel long distances searching for food. Can you imagine a rat like me keeping up with a giraffe or zebra? Not a chance!

Show image 4A-10: Oxpecker on giraffe

Now, there's a little bird that's been sitting on this giraffe the whole time I've been watching. This is the oxpecker. Oxpeckers perch on the backs of large animals. This oxpecker will use its sharp claws to hold on to the giraffe, who will hardly even know it's there. The giraffe and the oxpecker **coexist.** [10] The oxpecker feeds on the fleas and ticks living on the giraffe's body and warns the giraffe of any predators that might be trying to sneak up on it. In turn, the giraffe will let the oxpecker live on its back and provide the oxpecker food (fleas and ticks), shelter, and protection from predators. The oxpecker will spend most of its life on the giraffe's back. What a partnership!

10 When two animals coexist, it means that they live together peacefully.

Show image 4A-11: Zebra

So, here I am, back in all this tall grass, and I bet you recognize the black and white stripes of the zebra I've just run into. Zebras are specially adapted to living in the savanna. They have strong, long legs that make them very good at outrunning lions and other predators, and the stripes on the zebra's legs and body don't just make it look pretty—they camouflage the zebra against the grass so that predators can't see it. Zebras eat the grass on the savanna, so they are herbivores. [11]

11 What does *camouflage* mean?

Show image 4A-12: Elephant

Over there I can see the largest land animal in the world. Can you guess what it is? This African elephant is very big and eats up to four hundred pounds of trees and grasses every day! That's about the same amount as the weight of nine first-graders!

African elephants are adapted to the hot weather in the savanna. They have huge ears that they flap like fans to stay cool and keep away bugs. They also have thick skin, that protects them from branches and thorns.

Do you see the trunk on that elephant? An elephant uses its trunk for all sorts of things. The trunk is, of course, the elephant's nose for breathing and smelling, but the trunk is also used like a hand for lifting things, gathering food, and even holding onto other elephants' tails. Baby elephants, or calves, use their trunks to grasp other elephants' tails to keep them from wandering away from the rest of the herd and getting lost. Elephants also use their trunks to drink water. They suck up the water with their trunks and then put the water from the trunk into their mouths. They also use their trunks like a hose for showers and playtime!

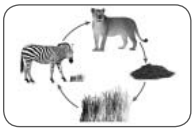
Show image 4A-13: Lions

These animals are lions. Lions live in groups called prides. The females, or lionesses, do most of the hunting. They are carnivores that hunt zebras, elephants, and all kinds of other savanna animals. Most groups of lions have just one or two male lions. The male lion is huge and incredibly strong. It has a furry mane, powerful jaws, and fearsome claws. Unless this lion meets a stronger lion, no other animal in the savanna habitat can match the lion's strength and power.

Animals that are hunted by predators are called **prey.** One of lions' favorite prey to hunt and eat are zebras. Zebras try to use the camouflage of their stripes to hide in the grasses of the savanna so the lions will not see them.

Show image 4A-14: Vultures

Up at the top of this tree I can see and hear birds that are waiting for the lions to finish eating so they can have dinner. These birds are called vultures. A vulture is a scavenger, which, as you have learned, is an animal that eats leftovers.



Show image 4A-15: Food chain

All of the animals and plants you've learned about so far are part of something we call the food chain, which is illustrated in this image. What do you see at the bottom of the picture? It is the savanna grass. The arrow points from the savanna grass to the zebra because the zebra eats the grass. The next arrow points from the zebra to the lion, because . . .you guessed it: the lion eats the zebra. The next picture after the lion is a picture of the soil, because eventually the lion dies and its body becomes a part of the soil. Then more grass grows out of that soil, and that starts the chain all over again.

Next, I think we should head to a habitat that's a bit closer to home and explore some plants and animals that might look quite familiar to us. But for now, I'm going to go check out more wildlife. I'll see you later.

Discussing the Read-Aloud ***15*** *minutes*

Comprehension Questions **10** *minutes*

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Inferential* Describe the East African savanna. [Prompt students as necessary to talk about the temperature, weather, availability of water, vegetation, etc.] (two seasons—a dry season and a rainy season; lots of grass; not many trees)

2. *Evaluative* How is the savanna the same and/or different from the Arctic tundra and the desert? [Read and refer to the parts of the chart you completed in the beginning of this lesson as an aid to student recall.] (Answers may vary.)

3. *Inferential* What are some of the plants that live in the savanna? (grass, acacia tree) Both the grasses of the savannas and the acacia trees have deep root systems. How do these deep roots helps these plants survive in the savannas? (During the hot and dry summer season, when there is very little rain, the roots of these plants can reach far underground where the soil is wetter and dries out less quickly.)

4. *Inferential* How would you categorize the following animals: giraffes, elephants, and zebras? (herbivores)

Show image 4A-11: Zebra

5. *Inferential* What animal is this? (zebra) How are zebras adapted to living on the savanna? (stripes that camouflage, long legs for running fast from predators)

Show image 4A-12: Elephant

6. *Inferential* What animal is this? (elephant) How are elephants adapted to living on the savanna? (thick skin protects from sun and heat, flap ears as fans)

Show image 4A-9: Giraffe

7. *Inferential* What animal is this? (giraffe) How are giraffes adapted to living in the savanna? (long necks; long, tough tongues; long legs)

Show image 4A-10: Oxpecker on giraffe

8. *Inferential* How do the oxpecker and the giraffe coexist? (The oxpecker eats the bugs that irritate the giraffe. The giraffe provides food and protection for the oxpecker.)

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

9. *Evaluative* *Think Pair Share:* Would you want to live in the savanna? Why or why not? (Answers may vary.)
10. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Prickly

5 *minutes*

1. In the read-aloud you heard, "[The acacia tree is] covered in *prickly* thorns."
2. Say the word *prickly* with me.
3. When something is prickly, that means it has lots of sharp points on it.
4. Pine trees can be very prickly, so handle them carefully.
5. The desert cactus you learned about might be prickly. Can you think of anything else that might be prickly? [Ask two or three students. If necessary guide and/or rephrase students' answers, "A _____ might be prickly."]
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: I am going to name several items. If the item is prickly, say, "That is prickly." If the item is not prickly, say, "That is not prickly."

1. a pillow (That is not prickly.)
2. a rosebush (That is prickly.)
3. a beard (That is prickly.)
4. a blanket (That is not prickly.)
5. a brush (That is prickly.)
6. a chalkboard (That is not prickly.)
7. a porcupine (That is prickly.)

Complete Remainder of the Lesson Later in the Day

Animals of the East African Savanna Habitat

4B

Extensions — *20 minutes*

Food Chain Game

Help the students use Image Cards 8 (Acacia Tree and Savanna Grass), 10 (Lion), and 11 (Zebra) to create a food chain of the East African savanna habitat. Once students have created the food chain, remove one of the cards and discuss what they think will happen to the rest of the plants and animals in the Image Card food chain. Will all of them die, or could they find another source of food? What else do they think those animals could eat? For example, if the zebra is removed, what else do they think the lion could eat? (giraffe) Expand on the food chain by talking about possible replacements. What happens if there are no replacements? Can the animals survive without anything to eat?

Tell students that this is just one possible food chain on the East African Savanna. Guide students in creating other food chains. For example, a food chain for the Arctic tundra might include plants, the Arctic hare, and the Arctic fox. A food chain for the desert might include cacti, insects, and the elf owl.

Habitat Review

Use Habitat Posters 1–3 (Arctic Tundra and Arctic Ocean); (The Sonoran Desert); and (The East African Savanna) to review each of the habitats students have learned about thus far. Compare and contrast the weather and climate of each habitat. If time allows, use Image Cards 1–11 to name each animal and plant and review how the animals and plants have adapted to the conditions in their own habitat.

Note: These Habitat Posters and Image Cards may also be used in small groups or placed in centers for sorting.

Animals of the Temperate Deciduous Forest Habitat 5

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Classify animals on the basis of the types of foods that they eat (herbivore, carnivore, omnivore)
- ✓ Identify the characteristics of the temperate deciduous forest habitat
- ✓ Explain how temperate deciduous forest animals have adapted to the temperate deciduous forest habitat

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Compare and contrast the temperate deciduous forest habitat with the Arctic, Sonoran, and East African savanna habitats (RI.1.9)
- ✓ With assistance, categorize and organize information about certain animals and the habitat in which they live (W.1.8)
- ✓ Ask and answer *what* questions orally, requiring literal recall and understanding of the details or facts from "Animals of the Temperate Deciduous Forest Habitat" (SL.1.2)
- ✓ Describe the temperate deciduous forest habitat with relevant details, expressing ideas and feelings clearly (SL.1.4)
- ✓ Identify new meanings for the word *bark* and apply them accurately

Core Vocabulary

climate, *n.* The type of weather that a place has over a long period of time
Example: The climate in the desert is very dry and very different from the climate in the tropical rainforest.
Variation(s): climates

hibernate, *v.* To sleep during the winter season for periods of time that are longer than just one night
Example: Some animals hibernate in the winter, while others remain active.
Variation(s): hibernates, hibernated, hibernating

species, *n.* A group of animals or plants that are alike in specific ways and have similar characteristics or features
Example: There are about seventy species of whales.
Variation(s): none

store, *v.* To save and put something away to be used later
Example: To prepare for the winter, some animals store food.
Variation(s): stores, stored, storing

temperate, *adj.* Not extremely hot or cold; a "middle" or moderate temperature
Example: Many places in the United States have a temperate climate.
Variation(s): none

territory, *n.* A space or an area in which an animal or group of animals live(s) and in which they often will not permit other animals to enter or live
Example: Many animals protect their territory.
Variation(s): territories

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Do We Know?**		10
	Where Are We?		
	Purpose for Listening		
Presenting the Read-Aloud	**Animals of the Temperate Deciduous Forest Habitat**		15
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Store		5
	Complete Remainder of the Lesson Later in the Day		
Extensions	**Multiple Meaning Word Activity: Bark**	Poster 3M (Bark)	20
	Image Card Sort	Image Cards 1–15; Habitat Posters 1–4	
Take-Home Material	**Family Letter**	Instructional Master 5B-1	*

Animals of the Temperate Deciduous Forest Habitat

5A

Introducing the Read-Aloud — *10 minutes*

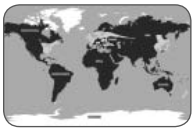
What Do We Know?

Ask students what they know about forests. You may prompt discussion with the following questions:

- What is a forest? (You may need to explain that a forest is a large area of trees.)
- Have you ever seen or been in a forest? If so, where?
- What things are found in a forest?
- Are all forests the same, or are there different kinds of forests?

Where Are We?

Tell students that not all forests are the same. Share that the forest they are going to learn about today is a temperate deciduous forest.



Show image 5A-1: Map of the world with temperate deciduous forests around the world highlighted

Point to the highlighted portions of the map. Explain to students that all of these highlighted areas have temperate deciduous forests and that these kinds of forests exist all around the world. Tell students that they are going to hear about a temperate deciduous forest today in the United States, one that is part of the states of Tennessee and North Carolina.

Show image 5A-2: Great Smoky Mountains

This forest is also a national park called Great Smoky Mountains National Park and is one of the most visited national parks in the United States. The mountains are named for the blue-gray mist that surrounds the mountain peaks.

Purpose for Listening

Tell students that the forest they are going to learn about today is a temperate deciduous forest. Tell students to listen carefully to learn what a temperate deciduous forest is.

Presenting the Read-Aloud **15** *minutes*

Animals of the Temperate Deciduous Forest Habitat

Show image 5A-3: Rattenborough in an oak tree

Rattenborough here with the next thrilling chapter in our habitat read-alouds. After looking at some very exotic,[1] faraway places, I thought we could visit a habitat that is quite common in many parts of the United States. This is a forest habitat. You know you're in a forest habitat when everywhere you look there are trees all around you!

1 or strange and fascinating

You may be wondering why I'm up a tree. Well, I'm enjoying the wonderful view of a forest in North America! There are over five hundred thousand acres of forest in this national park.[2] Many of you may have seen forests like this before, either in real life or in books. You may be familiar with some of the plants and animals that live here in the Smoky Mountains. A lot of them live in many other places all over the United States.

2 One acre is about as big as an American football field.

Show image 5A-4: View through the trees

There are many different kinds of forests in the world. The forests of the Smoky Mountains are called **temperate** forests. A temperate forest grows in an area that has four seasons, including a warm summer and a cold winter, and receives steady rainfall throughout the year.[3]

3 Even though these forests have a warm summer and a cold winter, temperate means it's not extremely hot or extremely cold like in other areas.

This forest is also called a deciduous forest because it is full of deciduous plants—trees, bushes, and shrubs that lose their leaves every fall, then grow leaves again when the temperatures start to rise in the spring. The temperate deciduous forest has a much friendlier **climate** than the other habitats we've learned about, and it can support many different kinds of plant and animal life.[4]

4 The climate of a habitat is what the weather is usually like over a long period of time.

Show image 5A-5: Forest

A temperate deciduous forest is made up of broadleaf trees like oak, maple, beech, and elm.[5] These trees grow very tall and

5 Broadleaf trees have broad leaves, or wide leaves.

are thickly covered with wide leaves that are better at collecting sunlight than trees like pine trees that have needles instead of leaves. Under these taller trees, there are saplings (young trees), as well as shrubs and bushes and plants that bear fruit. Closer to the ground grow shorter plants like grasses and wildflowers.

Show image 5A-6: Oak tree

I'm going to start at the top and work my way down so I can show you this wonderful habitat. The tree I am standing in now is an oak tree. This oak is very tall and is covered with leaves and acorns. An acorn is a seed, and if it gets planted in the forest soil, it can grow roots and a shoot which will eventually turn into an oak sapling.

Like the saguaro cactus in the desert and the acacia tree in the savanna, oak trees provide shelter and food for many animals. Owls, woodpeckers, mice, and foxes make their homes in the branches or around the roots of the oak tree, and acorns are food for squirrels, birds, deer, and other animals.

Show image 5A-7: Insect

Look at that tasty insect! Well, the oak tree is home for hundreds of different kinds of insects, like the stink bug and the weevil, which eat its leaves and acorns. Moths and butterflies lay their eggs in the tree. Other insects, like ants and timber beetles, live under the bark of the oak or in dead and fallen trees.

Just as insects are drawn to the oak as a source of food, so are animals that feed on insects. Spiders and all kinds of birds hunt for tasty bugs among the branches of the oak tree. Bears and other animals find food here, too. The oak tree is an amazing habitat in itself!

Show image 5A-8: Berry bushes

Down on the forest floor there are all kinds of shrubs, the fruits of which are food to many different **species** of animals, including rabbits, chipmunks, deer, and omnivores like bears.[6] Mmm, some

6 A species is a group of plants or animals that are similar or alike. The animals you just heard listed are all different species.

of these blueberries are perfectly ripe, and they taste delicious. What a tasty treat!

Down here on the ground I can see wildflowers, grasses, and clover. These plants, which cover the forest floor, are home to many types of insects and are food to grazing animals such as deer and mice.

One interesting thing about the plants in a forest is that often they grow leaning in the same direction. Isn't that strange? [7] Well, they have to do that because they are looking for sunlight. The leaves of the big trees get all the sun; only a small amount of sunlight gets through to the forest floor—that's why it's so shady in here. The plants down here have to grow toward the sun so they can get enough light to make the food they need to survive.

7 Why do you think the plants might be leaning in one direction?

Show image 5A-9: Moss

You may have seen this fuzzy green stuff growing on rocks, trees, and the ground in the forest or countryside. [8] Mosses are small green plants which grow in clumps in damp and shaded places. They cover parts of the forest floor like a carpet and are home to many small animals and insects. It feels really soft to walk on—thick and spongy—and it tickles a bit!

8 [Point to the moss in the picture.]

Now we're going to take a look at some of the animals that live here. Great Smoky Mountains National Park is home to almost four hundred different kinds of animals. Animals that live in the temperate deciduous forest are adapted to living in a habitat with four seasons. [9]

9 Name the four seasons, and tell me what the weather is like in each one.

Show image 5A-10: Squirrel eating an acorn

Let's start with the mighty oak tree again. This amazing tree is home to many animals, and I'm standing at the nest of one of them—the gray squirrel. This little animal is covered in warm, gray-brown fur with a white chest and a long, bushy tail. Squirrels live in holes in the trunks of trees or in nests high up in trees like this one. Their nests are built from twigs, leaves, moss, and grass. Squirrels use their strong back legs and sharp claws to help them leap from tree to tree and to run up and down tree trunks, and

they use their tails to help them balance. Squirrels are omnivores and spend most of their time looking for food. [10] The squirrel eats mostly acorns from the oak tree, but it also eats nuts, mushrooms, berries, seeds, and even bird eggs and insects. This squirrel might nibble on an acorn or two now, but it will also bury and **store** [11] many acorns underground so it will have them in the winter when other food is hard to find.

10 What are omnivores? (animals that eat both plants and animals)

11 or save

Show image 5A-11: Barred owl

A barred owl lives in a hole in this oak tree. I have to be careful, because owls are carnivores. [12] Unlike the elf owl in the desert, this owl happens to enjoy eating rats! This owl also eats other small animals like mice, insects, and even other birds. Owls have very good hearing and excellent eyesight, which allows them to find their prey easily in the thick forest. Owls are nocturnal, which means they only come out at night, so I have some time before this one is ready for a late-night snack.

12 What are carnivores? (animals that eat other animals)

Show image 5A-12: Black bear

Hold on, what's that scratching sound coming from below? It's a black bear! Black bears are common in North American temperate deciduous forests, and there are more than a thousand in this national park. They are large animals—they weigh as much as fourteen first graders would weigh all together—and when they stand on their hind legs, they can be taller than a person.

Bears are omnivores and **hibernate,** or sleep, during the winter in hollowed-out trees or caves. When they are hibernating, bears use less energy and do not need to eat any food for many, many days. This is a good thing, because during the winter the foods that bears eat are scarce and hard to find.

Bears are covered in thick, black or brown fur, and they have sharp claws to strip the bark off trees to uncover the insects that live there. [13] This bear will use its long, sticky tongue to get into every crack to hunt out the insects, and they'll make a delicious meal for him, I'm sure.

13 The word *bark* in this sentence means the outer covering of a tree. The word *bark* can also refer to the sound a dog makes.

Show image 5A-13: Buck

I just saw a deer through the trees. Deer often live in the temperate deciduous forest because it is such a good place to stay hidden, but they often hunt for food in neighboring meadows. This is a buck. A buck is a male deer, and we can tell because male deer have antlers.

Did you know that a buck's antlers fall off every year and will grow back again? Bucks mark their **territory** by stripping the bark off trees with their antlers.[14] Bucks also use their antlers for fighting with other male deer. This deer is a white-tailed deer. Its coat is tan right now, but in the winter it will change to gray-brown, and it has patches of white on its underside. This helps the deer to be camouflaged or hidden in the environment. How do you think the change in color from tan to gray brown with patches of white in winter helps to camouflage the deer?

14 A territory is an area in which an animal or group of animals lives. Animals often protect their territory and try to keep other animals out.

Show image 5A-14: Doe running away

Deer graze on grasses and eat tree leaves, berries, and acorns, among other things. They mostly come out to feed at night when the light is low, and they rest during the day. This white-tailed deer has strong, long legs which are good for running and jumping and for escaping from predators like wolves, coyotes, and people.

The temperate deciduous forest's climate can support many different plants and animals because it has four seasons. It is called temperate because it never gets too cold, like the Arctic, or too hot, like the Sonoran Desert. There is a steady rate of rainfall throughout the year, so plants can grow and animals can have food and water to keep them alive. This is just one of the many kinds of forests in the world. Next we're going to take a look at another kind. It's going to be very different in a lot of ways. I'll see you on our next adventure.

Discussing the Read-Aloud — *15 minutes*

Comprehension Questions — *10 minutes*

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Literal* Are all forests the same, or are there different kinds of forests? (different kinds)
2. *Inferential* Describe the temperate deciduous forest habitat. (It has cold and warm seasons—winter and summer; gets a steady amount of rainfall throughout the year—not too much, not too little; plants lose their leaves in the fall and grow more in the spring; etc.)
3. *Literal* What kinds of plants might you see in a temperate deciduous forest? (broadleaf trees, bushes, shrubs, mosses, etc.)
4. *Evaluative* How is the temperate deciduous forest habitat of the Great Smoky Mountains like the other habitats that you have learned about? (Plants and animals live there.) How is it different? (The climate is different; different plants and animals are found there; etc.)

Show image 5A-10: Squirrel eating an acorn

5. *Inferential* What animal is this? (gray squirrel) Where does the gray squirrel find shelter in the temperate deciduous forest? (either in a hole or a nest in an oak tree) What food does the gray squirrel in a temperate deciduous forest eat? (It eats acorns, other small plants, and insects.) Is the gray squirrel a carnivore, herbivore, or omnivore? (omnivore)

Show image 5A-11: Barred owl

6. *Inferential* What animal is this? (barred owl) Where does the barred owl find shelter in the temperate deciduous forest? (usually in a hole in an oak tree) What food does the barred owl in a temperate deciduous forest eat? (It eats small animals.) Is the barred owl a carnivore, herbivore, or omnivore? (carnivore) The read-aloud said that the barred owl is nocturnal. What does that mean? (It rests and sleeps during the day and is active at night.)

Show image 5A-12: Black bear

7. *Inferential* What animal is this? (black bear) Where does the black bear find shelter in the temperate deciduous forest? (in hollowed-out trees or caves) In a temperate deciduous forest, what food does the black bear eat? (It eats plants and small animals.) Is the black bear a carnivore, herbivore, or omnivore? (omnivore) During the winter, the black bear hibernates. What does that mean? (sleeps during the winter)

Show image 5A-13: Buck

8. *Inferential* What animal is this? (deer or buck) What food does the deer in a temperate deciduous forest eat? (It eats plants.) Is the deer a carnivore, herbivore, or omnivore? (herbivore)

9. *Inferential* What adaptations do the gray squirrel, barred owl, black bear, and deer have in order to live in the temperate deciduous forest? (The gray squirrel has strong back legs, sharp claws, and a long tail to quickly climb trees and balance on branches. The barred owl has good hearing and excellent eyesight to hunt for food. The black bear has sharp claws and a long, sticky tongue that help it find food, and it hibernates during the winter so it doesn't have to eat. The deer has antlers and strong legs, and the color of its fur changes in winter to camouflage it.)

10. *Evaluative* How are the gray squirrel, barred owl, black bear, and deer alike? (They all live in the temperate deciduous forest; they all need food, water, and shelter; etc.) How are they different? (They may be carnivores, herbivores, or omnivores; they have different adaptations; etc.)

[Please continue to model the *Question? Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

11. *Evaluative* ***What? Pair Share:*** Asking questions after a read-aloud is one way to see how much everyone has learned. Think of a question you can ask your neighbor about the read-aloud that starts with the word *what.* For example, you could ask, "What did you hear about in today's read-aloud?" Turn to your neighbor and ask your *what* question. Listen to your neighbor's response. Then your neighbor will ask a new *what* question, and you will get a chance to respond. I will call on several of you to share your questions with the class.
12. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Store

5 *minutes*

1. In the read-aloud you heard, "This squirrel might nibble on an acorn or two now, but it will also bury and *store* many acorns underground so it will have them in the winter when other food is hard to find."
2. Say the word *store* with me.
3. *Store* means to save and put away for future use.
4. When warm weather arrives, I store my winter hat and gloves in a box in the closet.
5. Do you sometimes store food? Do you store other things? Try to use the word *store* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "I store..."]
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: I will name a place. I want you to think about what you might store in that place. For example, if I say, "kitchen cabinet," you might say, "I store peanut butter in the kitchen cabinet." Remember to use the word *store* when you answer. (Answers may vary for all examples.)

1. the refrigerator
2. your desk (or wherever your students store supplies)
3. your pockets
4. under your bed
5. your backpack

Complete Remainder of the Lesson Later in the Day

Animals of the Temperate Deciduous Forest Habitat 5B

Extensions 20 minutes

Multiple Meaning Word Activity

Associated Phrase: Bark

1. [Show Poster 3M (Bark).] In the read-aloud you heard, "Bears are covered in thick, black or brown fur, and they have sharp claws to strip the *bark* off trees to uncover the insects that live there." [Have students hold up one or two fingers to indicate which image on the poster shows this meaning.]
2. *Bark* can also mean something else. *Bark* also refers to the sound dogs make. [Have students hold up one or two fingers to indicate which image on the poster shows this meaning.]
3. [Point to the bark on the tree.] With your partner, talk about what you think of when you see this kind of bark. I will call on a few partners to share what they came up with. Try to answer in complete sentences. (When I see this kind of bark, I think of trees, scratchy, covering, etc.)
4. [Point to the bark that is the sound a dog makes.] With your partner, talk about what you think of when you see this kind of bark. I will call on a few partners to share what they came up with. Try to answer in complete sentences. (When I see this kind of bark, I think of noise, dogs, howl, etc.)

Image Card Sort

Display Habitat Posters 1–4 to quickly discuss the various habitats that have been studied. Then place the Habitat Posters in different locations around the room.

Pass out Image Cards 1–15 to students—either one card per student or one card per pair of students, depending upon the number of students in your class. As you pass out each card, ask the entire class to name the animal or plant depicted. Tell each

student to stand next to the Habitat Poster that depicts the habitat of the plant or animal card that s/he is holding.

Proceeding from one habitat to another, quickly ask each student to identify each plant or animal and name the habitat in which it lives. For example, "A gray squirrel lives in the temperate deciduous forest." Ask the rest of the class if they agree or disagree with each student's answer.

If time permits, conclude the extension by asking students to return to their desks and to get out a piece of paper or their writing journals. Have them think of one sentence about the plant or animal on their card. Tell them to use their sound/spelling knowledge to sound out and write their sentences. Help students who find this difficult by dictating the spelling of difficult words. You may need to use a shared writing activity with some students. (They dictate while you write.)

Take-Home Material

Family Letter

Send home Instructional Master 5B-1.

Pausing Point

PP

Note to Teacher

You should pause here and spend one day reviewing, reinforcing, or extending the material taught thus far.

You may have students do any combination of the activities listed below, but it is highly recommended you use the Mid-Domain Student Performance Task Assessment to assess students' knowledge of animals and their habitats. The other activities may be done in any order. You may also choose to do an activity with the whole class or with a small group of students who would benefit from the particular activity.

Core Content Objectives Up to This Pausing Point

Students will:

- ✓ Explain what a habitat is
- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Identify the characteristics of the Arctic tundra habitat
- ✓ Identify the characteristics of the Arctic Ocean habitat
- ✓ Explain how Arctic animals have adapted to the Arctic tundra and Arctic Ocean habitats
- ✓ Identify the characteristics of the desert habitat
- ✓ Explain how desert animals have adapted to the desert habitat
- ✓ Classify animals on the basis of the types of food that they eat (herbivore, carnivore, omnivore)
- ✓ Identify the characteristics of the grassland habitat
- ✓ Explain how grassland animals have adapted to the grassland habitat
- ✓ Match specific plants and animals to their habitats

- ✓ Identify the characteristics of the temperate deciduous forest habitat
- ✓ Explain how temperate deciduous forest animals have adapted to the temperate deciduous forest habitat

Student Performance Task Assessment

⑩ Animals and Their Habitats (Instructional Master PP-1)

Materials: Three sheets of paper per student, drawing tools

Give each student three sheets of paper and drawing tools. On one sheet of paper, have them draw the Arctic habitat; on the second sheet of paper, have them draw the desert habitat; and on the third sheet of paper, have them draw the savanna or grassland habitat. Ask students to include plants that might live in each habitat.

Next, hand out Instructional Master PP-1. Have students cut out the animals and place them in the correct habitat. If time allows, talk with each student about his/her work and why s/he placed certain animals in certain habitats.

Activities

Image Review

Show the Flip Book images from any read-aloud again, and have students discuss the read-aloud using the images.

Image Card Review

Materials: Image Cards 1–15

In your hand, hold Image Cards 1–15 fanned out like a deck of cards. Ask a student to choose a card but not show it to anyone else in the class. The student must then perform an action or give a clue about the picture s/he is holding. For example, for the Arctic fox, the student may describe the habitat in which the fox lives, what it eats, and what it looks like. The rest of the class will guess what animal or plant is being described. Proceed to another card when the correct answer has been given.

Domain-Related Trade Book or Student Choice

Materials: Trade book

Read a trade book to review animals from a particular habitat; refer to the books listed in the Introduction. You may also choose to have students select a read-aloud to be heard again.

Key Vocabulary Brainstorming

Materials: Chart paper, chalkboard, or whiteboard

Give students a key domain concept or vocabulary word such as *shelter* or *camouflage*. Have them brainstorm everything that comes to mind when they hear the word. Record their responses on chart paper, a chalkboard, or a whiteboard for reference.

Riddles for Core Content

Ask students riddles such as the following to review core content:

- I live in the Sonoran Desert, and I love to eat cactus fruit as well as insects. I make my home by pecking holes into cacti. What am I? (Gila woodpecker)
- I live in the Arctic and have a long, shaggy coat to keep me warm in freezing temperatures. I have wide hooves so I don't slip on the snow and ice. What am I? (muskox)
- I live in the Sonoran Desert. I look a little like the Arctic hare, but I have longer ears and longer back legs. I love to eat grass and even cacti. What am I? (desert cottontail)

You may also wish to make some of your own riddles, depending on your students' needs.

Venn Diagram: Cacti and Oak Trees

Materials: Chart paper, chalkboard, or whiteboard

Create a Venn diagram with two overlapping circles on chart paper, a chalkboard, or a whiteboard. Label the circles with simple drawings of a cactus and an oak tree. Ask students to think about how cacti and oak trees are alike. (Both provide shelter and food for many animals; both may grow to be very tall and old; etc.) Record students' responses in the overlapping part of the circles.

Next, ask students to think about cacti and how they are different from oak trees. (Cacti grow in the desert, wheras oak trees grow in a temperate deciduous forest; cacti do not lose their green color, wheras oak trees lose their green leaves; etc.) Record differences in each separately labeled portion of each circle.

Class Book: Habitats

Materials: Drawing paper, drawing tools

Tell the class or a group of students that they are going to make a class book to help them remember what they have learned thus far in this domain. Have students brainstorm important information about the animals that live there. Have each student choose one idea to draw a picture of and to also write a caption for the picture. Bind the pages to make a book to put in the class library for students to read again and again. You may choose to add more pages upon completion of the entire domain before binding the book.

The Arctic, the Sonoran Desert, and the Temperate Deciduous Forest

Materials: World map or globe

Help students locate and identify the Arctic, the Sonoran Desert, and the temperate deciduous forest regions. Discuss with students the habitat of each area.

You Are There: The Arctic, the Sonoran Desert, and the Temperate Deciduous Forest

Have students pretend that they have been transported to the Arctic, the Sonoran Desert, or the temperate deciduous forest. Ask students to describe what they see and hear. What is the weather like? What kinds of plants and animals do they see? Consider also extending this activity by adding group or independent writing opportunities associated with the "You Are There" concept. For example, ask students to pretend they are Rattenborough describing one of the habitats to their classmates and to write a group article about the habitat.

Animals of the Tropical Rainforest Habitat

6

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Classify animals on the basis of the types of foods that they eat (herbivore, carnivore, omnivore)
- ✓ Identify the characteristics of the tropical rainforest habitat
- ✓ Explain how tropical rainforest animals have adapted to the tropical rainforest habitat

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Compare and contrast the tropical rainforest habitat with the temperate deciduous forest habitat (RI.1.9)
- ✓ Draft an informative text that presents information learned about animals in "Animals of the Tropical Rainforest Habitat" that includes mention of a topic, some facts about the topic, and some sense of closure (W.1.2)
- ✓ Describe the tropical rainforest habitat with relevant details, expressing ideas and feelings clearly (SL.1.4)
- ✓ Add drawings to descriptions of animals in the tropical rainforest habitat to clarify ideas, thoughts, and feelings (SL.1.5)

✓ Use frequently occurring conjunctions, such as *but*

Core Vocabulary

canopy, *n.* The top layer of the forest formed by the branches and leaves at the tops of the trees
Example: The canopy of the forest shades the plants and animals below.
Variation(s): canopies

colonies, *n.* A group of the same kind of animals or plants living and growing together
Example: There were several ant colonies in his backyard.
Variation(s): colony

dense, *adj.* Thick
Example: The rainforest is very dense because of the many plants that grow and live close together there.
Variation(s): denser, densest

humid, *adj.* Wet and damp; containing a high amount of water or water vapor
Example: The air is often sticky and humid on a hot summer day.
Variation(s): none

patterns, *n.* Repeated shapes or designs
Example: It is fun to find patterns in artwork.
Variation(s): pattern

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**Essential Background Information or Terms**	globe	10
	Purpose for Listening		
Presenting the Read-Aloud	**Animals of the Tropical Rainforest Habitat**		15
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Canopy		5
	Complete Remainder of the Lesson Later in the Day		
Extensions	**Writing About the Read-Aloud**	drawing paper, drawing tools	20
	Syntactical Awareness Activity: Conjunction *but*		

Animals of the Tropical Rainforest Habitat

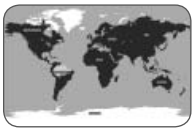
6A

Introducing the Read-Aloud

***10** minutes*

Essential Background Information or Terms

Using a globe, point to and use your finger to trace around the equator. As you do this, tell students that the equator is an imaginary line around the middle or center of the earth. Explain that the land and water near the equator stay very warm year-round. Ask students if a temperate deciduous forest would be found near the equator, and have them explain why not. (No, because it gets cold during the winter in temperate deciduous forests.)



Show image 6A-1: Map of the world with Amazon rainforest highlighted

Tell students that the next read-aloud is about a different kind of forest that is located near the equator where it stays warm and wet all year long. This type of forest is called the tropical rainforest. The particular rainforest that Rattenborough will visit today is called the Amazon rainforest and is located on the continent of South America. Point to South America and the approximate location of the Amazon rainforest; it covers more than 1.4 billion acres in the following countries—Brazil (with sixty percent of the rainforest), Peru (with thirteen percent of the rainforest, second after Brazil), Colombia, Venezuela, Ecuador, Bolivia, Guyana, Suriname, and French Guiana.

Purpose for Listening

Tell students to listen carefully to learn about one example of a tropical forest, the Amazon rainforest.

Presenting the Read-Aloud **15** *minutes*

Animals of the Tropical Rainforest Habitat

Show image 6A-2: Rattenborough swinging through rainforest

Hello there. Rattenborough reporting from a fascinating habitat—a habitat that has the greatest variety of plants and animals of any habitat on Earth. Welcome to the tropical rainforest. Tropical places are warm and wet. A rainforest is a thick forest of plants that stay green year-round. So, a tropical rainforest is a warm, wet, thick forest of plants that stay green year-round. There are tropical rainforests in many places around the world close to the equator, but the one we are visiting is called the Amazon rainforest. It is in South America and is the largest tropical rainforest on Earth. The Amazon rainforest is so **dense** that a rat like me could easily get lost. [1] It's hot and very **humid** here. The temperature is always very warm, and it rains heavily all year long. [2] My fur is feeling very wet and sticky, and it's a good thing that I brought my umbrella. There are between eighty and two hundred forty inches of rainfall here every year. That makes this one of the wettest places you can find on land. [3]

1 *Dense* means thick. The plants in the tropical rainforest are thick because there are so many growing closely together.

2 Because of the warm temperature and rain, the air feels wet, or humid.

3 [Provide students with an idea of the number of inches of rainfall yearly where you live—demonstrate the amount with your hands—to put the amount of rainfall in the Amazon in context.]

Show image 6A-3: Dense jungle

Temperate deciduous forests, which you learned about last time, have broadleaf trees that lose all of their leaves in the fall. The Amazon rainforest also has broadleaf trees, but the main difference is that most of the trees here stay green all year long. The evergreen trees in this tropical rainforest replace their leaves gradually throughout the year as the leaves age and fall, so that the trees always look green and never have bare branches like the trees in a temperate deciduous forest. Because the climate here is the same all year round, plants do not need to slow down for cold winter weather, and the animals that live here always have a good supply of food all year, too.

Show image 6A-4: Rainforest canopy

Take a look around. The trees in the rainforest are so tall that they grow as tall as thirteen-story buildings,[4] and some grow much taller than that! I'm standing in a tree right now, and as you can see, the trees grow so thickly and so close together here that, from above, you can see only a **canopy** of thick, green leaves. You can't see the forest floor at all.[5]

4 or as tall as very, very tall buildings or skyscrapers in large cities

5 A canopy is something that blocks out the sunlight. In a tropical rainforest, the canopy is the highest layer of plants formed by the tallest trees' leaves.

Because the sun's light can't get through this canopy of leaves, everything under them is really dark. I've brought a flashlight to help me see down there.

Show image 6A-5: Rain drop

The plants in the Amazon rainforest have adapted to this climate in many ways. Because it's so dark in the rainforest underneath the canopy, most plants have large leaves so they can catch as much light as possible. Many of the plants have waxy leaves with ends that are tapered to help the water drip off them, like the water running off my umbrella.

Show image 6A-6: Vines in the rainforest

Many types of vines grow in the rainforest. Vines are climbing plants that grow on trees or wind themselves around tree trunks. Many animals use the vines growing among the trees almost like sidewalks and ladders to cross from one tree to another.

The rainforest floor is a very shady place, which means it is a good habitat for mosses and fungi that don't need much sunlight. If you can believe it, there are even some plants that don't need any light at all to grow! They grow on the forest floor and get their energy from the rotting leaves instead of sunlight.

Show image 6A-7: Kapok tree

I'm way up in a particular type of tree found in the Amazon rainforest called a kapok (*KA*-pok) tree, so high that you won't be able to see me! The kapok tree is one of the tallest trees around. The kapok has a very long trunk, and its branches and leaves form

a canopy over the plants and animals below, making it a good shelter for animals like birds, snakes, and monkeys.

Show image 6A-8: Toucan, macaw, poison arrow frog

There are also many different kinds of animals that call the Amazon rainforest home. Many types of interesting and colorful birds, frogs, insects, reptiles, and other animals live in the trees and other plants of the tropical rainforest. These huge toucans use their large beaks to cut fruit from branches and to eat lizards, as well as other birds. [6] Macaws, which are a kind of parrot, travel in groups and use their hooked beaks to break into hard nuts and fruits. [7] And you don't want to get too close to the poison arrow frog, which has poisonous skin to protect it from its predators.

6 [Point to the toucan on the right side in the image.]

7 [Point to the macaws.]

Show image 6A-9: Squirrel monkey

I'm back in the kapok tree, one of the very tallest trees in the forest, to see what kinds of animals call this habitat home. [8]

8 What is a habitat?

Over there I can see a squirrel monkey. The squirrel monkey is a very friendly little animal, and it shares a lot of things in common with the squirrels that live in the temperate deciduous forests. The squirrel monkey is very small and has a very long, thin tail that it uses to help balance. It has strong legs that it uses to jump and run, and claws which help it climb up and down trees and vines. In fact, squirrel monkeys are so good at traveling by leaping and running along branches that they hardly ever touch the forest floor.

Show image 6A-10: Squirrel monkey eating

The squirrel monkey is an omnivore. It eats insects, fruits, and flowers, and spends most of its time during the day moving around the forest to find food. The squirrel monkey has excellent eyesight, which is useful for finding small insects, fruit, and berries growing among the green leaves of the tropical rainforest trees. Squirrel monkeys live in large groups, making it harder for their predators—eagles and snakes—to get them. Now, this monkey is acting a little strange, and experience has told me that this kind of behavior

usually means there's trouble on the way. Aha, yes, look who's coming—some kind of snake. Snakes also tend to eat rats, so I'm going to climb a bit higher and take a look from a distance.

Show image 6A-11: Boa constrictor

Wow, look at the size of this snake! It's a boa constrictor, one of many kinds of snakes that live in the Amazon rainforest. It's a pretty big snake; this one is about thirteen feet long![9] Boas can have slightly different coloring and **patterns** on their skin,[10] but they are well camouflaged in the trees, plants, and vines of the forest.

9 [Provide students of an example of something that is thirteen feet long, using an example from your classroom or school.]

10 Patterns are repeated shapes or designs.

Show image 6A-12: Boa constrictor showing jawline

This boa constrictor, like all snakes, is a carnivore. It eats other animals such as bats, which are its favorite food, rodents (yes, rats included!), lizards, birds, and even the small squirrel monkeys. The boa constrictor is mostly nocturnal, so it comes out to hunt when it's getting dark, like now.

Snakes can eat animals that are much bigger than they are. This boa's jaws open very, very wide, so that when it finds an animal to eat, even animals such as birds and squirrel monkeys, it will be able to swallow it whole.

Show image 6A-13: Jaguar

The boa constrictor is not the only carnivore in the rainforest. In fact, it will have to watch out that it doesn't become dinner for a hungry jaguar, like this one. Jaguars look a lot like leopards—they have tan fur with dark spots—but they are bigger than leopards, with shorter tails and legs, and bigger heads and paws. This jaguar is about seven feet long and probably weighs around two hundred pounds.

Show image 6A-14: Jaguar hunting

Jaguars are very well adapted to living in the rainforest. They have very sensitive hearing and an excellent sense of smell. A jaguar can see very well during the day and at night. All these things make it easier for it to find, stalk, and catch its prey.[11]

11 *Stalk* means to follow.

I can barely hear the jaguar moving through the forest. That's because its paws are covered with very thick fur with pads on the bottom. Because they can travel so quietly, jaguars don't have to run far to catch their prey. So, instead of having long legs for running, they have short, strong legs that are good for pouncing on other animals from the ground, from trees, or in the water.

A jaguar spends most of the day resting and goes out to hunt at night. It's also very good at climbing trees, which means I should get out of here before it's able to sniff me out!

I've moved to the bottom of the kapok tree onto the forest floor, because there's one last, very interesting animal I want to show you. We'd better hurry—it's getting dark, and I may have to use my flashlight to show you.

Show image 6A-15: Leafcutter ants

These are leafcutter ants. These ants burrow underground and make nests in groups called **colonies.** Different ants in the colony have different responsibilities. There are worker ants, soldier ants, and their queen. The worker ants are traveling to the kapok tree nearby where they will use their sharp jaws to bite off pieces of the leaves to bring back to the nest.

Did you know that ants can carry up to ten times their own body weight? That's pretty amazing, isn't it? The soldier ants are there to protect the worker ants on their way to and from the nest. These ants spend most of their lives working for food! Nature is amazing, isn't it?

Well, it's really quite dark now, and my fur has been sticking to me since we got here, so I think it's time to leave the hot and humid Amazon rainforest. We've learned a lot about this exotic habitat, its climate, and the plants and animals that have their homes here. Now for somewhere really different.

Discussing the Read-Aloud **15** *minutes*

Comprehension Questions **10** *minutes*

1. *Literal* What is a tropical rainforest? (a forest that stays warm, wet and green all of the time and has many different types of plants and animals)
2. *Inferential* Why is it dark on the ground or floor of a tropical rainforest? (The canopy made by the leaves of the tall trees blocks most of the sunlight.)
3. *Inferential* How have the plants adapted to live in the tropical rainforest? (They reach for the sunlight or need little sunlight; they have large leaves to collect the sunlight; they have waxy leaves to allow runoff of water; the trees have large roots.)

Show image 6A-9: Squirrel monkey

4. *Inferential* What animal is this? (squirrel monkey) What food does a squirrel monkey eat in the tropical rainforest? (It eats insects, fruits, and flowers.) Is the squirrel monkey a carnivore, herbivore, or omnivore? (omnivore) Where do you think the squirrel monkey might find shelter in the tropical rainforest? (in the trees)

Show image 6A-11: Boa constrictor

5. *Inferential* What animal is this? (boa constrictor) What food does a boa constrictor eat in the tropical rainforest? (It eats small animals.) Is the boa constrictor a carnivore, herbivore, or omnivore? (carnivore) Where do you think the boa constrictor might find shelter in the tropical rainforest? (in the trees, under plants on the forest floor)

Show image 6A-14: Jaguar hunting

6. *Inferential* What animal is this? (jaguar) What food does a jaguar eat in the tropical rainforest? (It eats small animals.) Is the jaguar a carnivore, herbivore, or omnivore? (carnivore)
7. *Inferential* What adaptations do the squirrel monkey, boa constrictor, jaguar, and leafcutter ants have in order to live in the tropical rainforest? (The squirrel monkey has strong back legs to run and jump, sharp claws to quickly climb trees, and a long tail

to help it balance as it runs along branches. The boa constrictor has jaws that open wide so it can eat its prey whole and is camouflaged so it can sneak up on its prey. The jaguar has sensitive hearing and an excellent sense of smell, and its paws are covered with thick fur so that it can effectively and quietly hunt its prey. Leafcutter ants can carry up to ten times their weight so they can bring food back to the colony.)

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

8. *Evaluative* ***Think Pair Share:*** How is a tropical rainforest similar to a temperate deciduous forest? (They both have trees; are home to many plants and animals; etc.) How is it different? (A tropical rainforest stays warm, wet, and green all year.)

9. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Canopy *5 minutes*

1. In the read-aloud you heard, "[T]he trees grow so thickly and so close together here that, from above, you can only see a *canopy* of thick, green leaves."
2. Say the word *canopy* with me.
3. A canopy is a covering above an object that blocks out sunlight.
4. There is a canopy over the front doors of the store.
5. Have you ever seen a canopy? If so, where? What did the canopy cover? Can you think of times that it might be helpful to have a canopy? Try to use the word *canopy* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "I saw a canopy at..."]
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: I will name two things. You will decide which one is similar to a canopy. Remember, a canopy is above a person or an object in order to cover it. Remember to use the word *canopy* when you answer.

1. the roof of a house or the floor of a house (The roof is like a canopy.)
2. a tent or a door mat (A tent is like a canopy.)
3. a tree's roots or a tree's branches and leaves (A tree's branches and leaves are like a canopy.)
4. an umbrella or rain boots (An umbrella is like a canopy.)

Complete Remainder of the Lesson Later in the Day

Animals of the Tropical Rainforest Habitat

6B

Extensions — ***20*** *minutes*

Writing About the Read-Aloud

Ask students to think about the read-aloud that they listened to earlier in the day. Give each student a piece of paper, and ask each to draw a picture of an animal from the tropical rainforest. You may need to review some of the Flip Book images with students before they begin drawing. Direct each student to write a sentence with one important fact about the animal in their drawing. As you circulate, make sure that each student is representing an animal from the day's read-aloud, and encourage students to represent the sounds they hear in words on their paper. You may also want to take dictation for any student who is unable to use plausible spelling to represent his or her ideas.

When students have completed their drawings and sentences, tell them that they are going to group the animals in their drawings as herbivores, carnivores, or omnivores. As students group the animals, encourage the use of increasingly complex sentences and domain-related vocabulary.

⇆ Syntactic Awareness Activity: Conjunction *but*

The purpose of these syntactic activities is to help students understand the direct connection between grammatical structures and the meaning of text. These syntactic activities should be used in conjunction with the complex text presented in the read-alouds.

1. Conjunctions are a kind of word we use to connect words and phrases.
2. We use the conjunction ***but*** to join words and phrases that are different, or opposite.

3. Listen to this selection about the jaguar from the read-aloud. I will emphasize the word ***but*** as I read the selection to you:

Jaguars look a lot like leopards—they have tan fur with dark spots—but they are bigger than leopards, with shorter tails and legs, and bigger heads and paws. This jaguar is about seven feet long and probably weighs around two hundred pounds.

4. Notice that in this paragraph, Rattenborough uses the word ***but*** when he talks about the differences between leopards and jaguars.
5. You hear the word ***but*** a lot when talking about differences:

Drawing and painting are both fun, but painting is a little messier.

The word ***but*** tells us that we are talking about differences, or opposites.

6. Let's listen to another example:

My sister and I look a lot alike, but she is shorter.

7. The word ***but*** tells us that we are talking about differences, or opposites.

Use a *Discussion* activity for follow-up. Directions: The following sentences talk about two objects. Work with your partner to talk about how the two objects are different using the word ***but.*** Use complete sentences, and explain how the two objects are different.

1. Dogs and cats are both animals, but dogs are . . .
2. Apples and bananas are both fruit, but apples are . . .
3. Kindergarteners and first graders are both students, but first graders are . . .

Animals of the Freshwater Habitat

7

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Classify animals on the basis of the types of foods that they eat (herbivore, carnivore, omnivore)
- ✓ Classify water habitats as either freshwater or saltwater habitats
- ✓ Identify the characteristics of the freshwater habitat

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Describe an illustration of a bullfrog and use pictures and detail in "Animals of the Freshwater Habitat" to describe the read-aloud's key ideas (RI.1.7)
- ✓ Describe a freshwater habitat with relevant details, expressing ideas and feelings clearly (SL.1.4)
- ✓ Explain the meaning of "a fish out of water" and use in appropriate contexts (L.1.6)

Core Vocabulary

amphibious, *adj.* Able to live both on land and in water
Example: Our frog tank has areas of dry land and water for swimming because frogs are amphibious.
Variation(s): none

float, *v.* To stay or move slowly on top of the water without sinking underwater
Example: The children watched their toy boats float in the bathtub.
Variation(s): floats, floated, floating

freshwater, *adj.* Water that is not salty
Example: Every summer our family goes to a freshwater pond to swim.
Variation(s): none

gills, *n.* The part of the body that fish and other underwater animals use to breathe
Example: When we went to the aquarium, we saw the trout's large gills on the side of its body as it swam by.
Variation(s): gill

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**Essential Background Information or Terms**	globe; chart paper, chalkboard, or whiteboard; black, brown, and blue markers or colored chalk	10
	Purpose for Listening		
Presenting the Read-Aloud	**Animals of the Freshwater Habitat**		15
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Float		5
	Complete Remainder of the Lesson Later in the Day		
Extensions	**Sayings and Phrases: A Fish Out of Water**	paper or writing journals crayons	20
	Brainstorming Links	chart paper, chalkboard, or whiteboard; drawing paper, drawing tools	

Animals of the Freshwater Habitat

7A

Introducing the Read-Aloud *10 minutes*

Essential Background Information or Terms

Show students the globe, and remind them that the globe shows both the land and water that make up our planet, Earth. Remind them that on the globe, large bodies of water are shown in blue. Ask several students to point to areas of land and areas of water on the globe.

Ask students to try to remember and name all of the different habitats that they have learned about so far, and record their responses on either the chart paper or whiteboard using the black marker. If using a chalkboard, choose three different colors of chalk (one to write the names of the habitats, one to circle the land habitats, and one to circle the water habitat) to distinguish among the items. Remind students that they may not be able to read all of these words by themselves, but you are writing them down so you don't forget. Prompt students as necessary until you have a complete list of all the habitats studied: Arctic tundra, Arctic Ocean, Sonoran Desert, East African Savanna, temperate deciduous forest, and tropical rainforest.

Tell students that you are going to review/reread the name of each habitat, and as you do so, ask them to tell you whether the habitat is primarily a land habitat or a water habitat. If it is a land habitat, use the brown marker to circle the name of the habitat; if it is a water habitat, use the blue marker to circle the name of the habitat. Call students' attention to the fact that all of the habitats discussed so far—with the exception of one—the Arctic Ocean, have been land habitats. Only the Arctic Ocean is a water habitat.

Tell students that today they are going to learn about another water habitat: a freshwater habitat. Explain that fresh water is water that does not have very much salt in it; it is often water that people can drink. A freshwater habitat is different from the water

habitat found in the Arctic Ocean, which is called a saltwater habitat. The water that is found in oceans is salty. Tell students that they will learn more about other saltwater habitats in the next lesson, but today, they are going to learn about freshwater habitats.

Show image 7A-1: Examples of freshwater habitats

Tell students that this illustration shows different kinds of freshwater habitats, such as rivers, streams, lakes, and ponds. Show students the globe, and point out some examples of freshwater habitats, such as major rivers and lakes. Ask students if they can think of any examples of freshwater habitats in their area. Tell students that they are going to learn about some of the plants and animals that live in and around fresh water.

Purpose for Listening

Tell students to listen for the different kinds of plants and animals in a freshwater habitat.

Presenting the Read-Aloud — *15 minutes*

Animals of the Freshwater Habitat

Show image 7A-2: Rattenborough fishing off a dock

Hello again! Glad you could join me. I thought that we needed a real change, so I've come off dry land to a place where it's wet all the time—a lake. A lake is an area of water that is surrounded by land.[1] There is a lot of water in the world; in fact, water covers most of the earth's surface. But, only a tiny part of the world's water is **freshwater,** the kind of water you and I can drink because it has very little salt in it.

1 If something is surrounded by land, it has land all around it.

Show image 7A-3: Examples of freshwater habitats

Fresh water is found in streams, rivers, lakes, and ponds. The water in these streams, rivers, lakes, and ponds comes from rain and from melting ice and snow. Isn't it amazing to think that the water from the drinking fountain at school or from the faucets in your house all comes from rain?

Show image 7A-4: Edge of lake with water lilies

I'm here at the water's edge[2] to explore this lake and the plants and animals that call this freshwater habitat home. Freshwater habitats have many kinds of fish, birds, insects, and other animals. Standing here, I can see an enormous[3] leaf in the water. Let me climb onto it so we can get a closer look.

2 or the water's side

3 or very big

This is a water lily leaf.[4] A water lily is a plant that lives in water near the edges of ponds and lakes. Plants are important in freshwater habitats because they make oxygen for animals to breathe; plants are also food for the animals to eat, and they can provide shelter to protect animals from their predators.[5] The leaves of the water lily are very large, round, and green, and they **float** on the surface of the water.[6]

4 [Point to the water lilies in the picture.]

5 Remember, a predator is an animal that hunts other animals.

6 If they float on the surface of the water, that means they stay on top of the water; they don't sink.

Show image 7A-5: Water lilies, deer, porcupine, beaver, turtles, and ducks

The water lily is well adapted for living in this habitat. Like the kapok trees in the rainforest, the lily's large leaves let it get as much sunlight as it needs for food and energy.

Lilies are also food for many animals, believe it or not. Animals—like deer, porcupines, beavers, and turtles—all eat the leaves, wheras ducks and geese like to eat the roots. Some animals, like fish and frogs, use the lily leaves as hiding places, and the flowers bring bees and other insects. I am going to float around the edge of the lake on this water lily leaf, but I'm going to have to leave soon because this pesky turtle will not leave my leaf alone!

Show image 7A-6: Cattails, muskrat, geese, moose, elk

I've pushed out from the edge of the lake a little, and already I can see another kind of plant that lives here. It's called a cattail, and it gets its name from the unusual way it looks. Thankfully for me, it doesn't have much to do with real cats! Cattails have long, thin stems with foot-long, furry flower spikes at the top that turn from green in the early summer to brown in the fall. The flower spike feels soft and furry and looks a little like a cat's tail, but I think it looks more like a hot dog![7] The plants can reach up to nine feet in height, which lets them get as much sunlight as they need.

As with water lilies, some animals use cattails for food and shelter.[8] Muskrats and geese like to eat the roots of the cattail, and the juicy green shoots are a favorite of moose and elk.[9] Many kinds of birds make their homes among the cattails. It's very hard to see anything in there because cattails grow so thickly, so it's a good place for birds to build their nests and to lay and hatch their eggs. Predators like snakes and frogs also live among the cattails and search for animals like birds and insects for food. I think I'm going to move on now. As you know, I'm not very good with snakes!

7 Does it look like a cat's tail to you?

8 [Point to each animal as you talk about it.]

9 Moose and elk, like caribou, are part of the deer family.

Show image 7A-7: Rainbow trout

Come with me beneath the water, and let's take a look at what's under there. Here are some nice-looking rainbow trout. Fish can only live in water, and they breathe underwater using **gills** on the sides of their bodies. Gills take in oxygen from the water around them. Fish have strong tails that they use for swimming and fins that they use for steering and balance.

The rainbow trout is a carnivore. [10] It eats other water animals like insects, other fish, and sometimes shellfish. It even eats some small land animals like mice if it gets the chance, so I'm sure it wouldn't mind a nibble of rat! Rainbow trout like to live in rivers, but some prefer the deeper water of big lakes.

10 Remember, a carnivore is an animal that eats other animals.

Show image 7A-8: Bullfrog [11]

I enjoyed exploring beneath the surface of the water, and now I'm going to rest on a lily pad again. While I'm drying off a bit, let me show you a kind of frog called a bullfrog that I can see sitting at the water's edge. Frogs are **amphibious,** which means they live both in the water and on land. Bullfrogs are the largest kind of frog found in North America, and they can grow more than half a foot long and weigh more than a pound. That's a really big frog!

11 What do you see in this image?

The bullfrog gets its name from the loud, cow-like noise it makes. [12] I bet birds and turtles would be pretty surprised to know that a frog can make such a loud sound! Pretty neat, huh? This bullfrog is resting now, but it will come out to hunt when it gets dark. Bullfrogs eat a lot of different kinds of food. They are carnivores, so they eat small fish, snakes, birds, and insects like this dragonfly that's buzzing about my head.

12 A male cow is called a bull. What sound does a cow make?

Show image 7A-9: Adult dragonfly [13]

Adult dragonflies are flying insects with long bodies and wings. Dragonflies live around lakes, streams, and other freshwater habitats because they lay their eggs in water. Adult dragonflies eat other insects like mosquitoes, flies, and bees.

13 This is an adult dragonfly. *Adult* means grown up.

14 or stay in one place while flying

The dragonfly uses its long wings to hover[14] around in the air where it catches its food. It has to be careful because the bullfrog isn't the only one that likes to eat dragonflies. Birds and turtles like to eat them, too.

Show image 7A-10: Ducks

The water is getting a little rough out here. Ah, that's why. Here come some birds that like to eat insects. These are a kind of duck called mallards. Ducks are birds and can live both in and out of water, but it's the water where they spend most of their time. Like all birds, ducks—like these mallards—are covered in feathers.

15 When something is waterproof, it keeps water out.

Did you know that ducks' feathers are waterproof?[15] Ducks rub special oil from their tails all over their feathers. Because oil and water don't mix, water drips right off the ducks without getting their feathers wet.

Show image 7A-11: Duck looking for food

Ducks float on the surface of the water and have large, webbed feet to help them paddle. They dip their heads under the water and use their beaks, which are called bills, to search for food at the bottom of the lake.[16] Mallards eat grasses and seeds from plants, and small animals like insects, worms, snails, frogs, and small fish.

16 Here the word *bills* refers to ducks' beaks. The word *bills* can also refer to pieces of paper money.

Well, we've had a good look around this freshwater habitat, but I have to get off this lily leaf before these ducks knock me off! There's another kind of water habitat, and we're going to have a look at it next time. I hope you'll join me. Now, if you'll excuse me, I have to start my long trip back to shore!

Discussing the Read-Aloud — 15 minutes

Comprehension Questions — 10 minutes

1. *Inferential* Describe a freshwater habitat. (Answers may vary.)
2. *Inferential* What are some examples of freshwater habitats? (rivers, streams, lakes, and ponds)
3. *Literal* Is most of the earth's water fresh water or salt water? (salt water)
4. *Inferential* What are some plants that live in freshwater habitats? (water lilies, cattails)
5. *Inferential* What animals live in freshwater habitats? (fish, including rainbow trout; birds, including ducks; insects, including dragonflies, bees, mosquitoes, and flies; frogs, including bullfrogs; deer; porcupines; beavers; turtles; muskrats; geese; moose)
6. *Inferential* How are dragonflies adapted to live in a freshwater habitat? (Dragonflies lay their eggs in water. They eat insects that live in freshwater habitats, like mosquitoes, flies, and bees.)
7. *Literal* What carnivores did you learn about today that live in freshwater habitats? (rainbow trout, bullfrogs) What is the omnivore that you learned about today? (mallard ducks) What is a nocturnal animal that lives in freshwater habitats? (bullfrog)

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

8. *Evaluative* *Think Pair Share:* Why are water lilies so important in freshwater habitats? (They provide oxygen for animals to breathe, and food for them to eat. The leaves are hiding places for animals, like fish and frogs, and the flowers attract bees and other insects.)

9. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Float *5 minutes*

1. In the read-aloud, you heard, "The leaves of the water lily are very large, round, and green, and they *float* on the surface of the water."
2. Say the word *float* with me.
3. If things float on water, that means they stay on top of the water and do not sink.
4. In the summer, I like to float in the pool.
5. What other things float in water? Try to use the word *float* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "My bath toys float in the bathtub."]
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: I am going to describe a situation. If it is an example of something that does float, say, "That floats." If it is an example of something that does not float, say, "That does not float."

1. The leaf fell from the tree and landed on the surface of the water. (That floats.)
2. Harry threw the rock, and it sank to the bottom of the pond. (That does not float.)
3. The boat rocked gently back and forth on top of the waves. (That floats.)
4. The dolphin dove deep into the ocean. (That does not float.)
5. There are many pennies under the water at the bottom of the water fountain. (They do not float.)

Complete Remainder of the Lesson Later in the Day

Animals of the Freshwater Habitat

7 B

Extensions

***20** minutes*

Sayings and Phrases: A Fish Out of Water

Ask students if they have ever heard the saying "a fish out of water." Have students repeat the saying. Ask the students what would happen to a fish that was out of water. (The fish would not be in its usual environment or place. It would be very uncomfortable, and it would be difficult for the fish to survive very long out of water.)

Explain to students that this saying is used to talk about people. People would survive if they weren't in their usual place, but they just might feel a little uncomfortable or strange. Give students an example, such as how strange they would feel if they were the only person who forgot to wear shoes to school, or if they started attending a new school and didn't know anyone else in their class. They might feel like "a fish out of water." Ask students if they can think of other times that people might feel uncomfortable in a new or different environment.

Try to find opportunities to use this saying when it applies to situations in the classroom.

If time permits, you may also have students illustrate either the literal or figurative meanings of this saying or just the figurative meaning. Also, ask them to write in their writing journals about a personal experience when they felt like a fish out of water.

Brainstorming Links

Write the word *freshwater* on chart paper, a chalkboard, or a whiteboard. Have students brainstorm a list of words describing a freshwater habitat and the animals that live in it. Write their responses around the central word *freshwater.* Encourage students to discuss each word or concept as you write it down. Remember to repeat and expand upon each response using richer and more complex language, including any read-aloud vocabulary.

When students name a plant or animal, be sure to emphasize how it is adapted to living in the freshwater habitat.

If time allows, give students a piece of paper, and have them draw a picture that represents one of the plants or animals from the brainstorming session. Have students dictate a few words or short sentences that define or describe their picture.

Animals of the Saltwater Habitat

8

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Classify water habitats as either freshwater or saltwater habitats
- ✓ Explain that salt water covers most of Earth and is found in oceans
- ✓ Identify and locate the oceans of the world on a globe: Arctic, Pacific, Atlantic, Indian, Southern
- ✓ Describe the landscape of the ocean floor
- ✓ Describe ocean life as very diverse
- ✓ Match saltwater plants and animals to the saltwater habitat

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ With assistance, categorize and organize information about the various habitats and the animals that live in each habitat (W.1.8)
- ✓ Ask and answer *what* questions orally, requiring literal recall and understanding of the details or facts from "Animals of the Saltwater Habitat" (SL.1.2)
- ✓ Describe the ocean with relevant details, expressing ideas and feelings clearly (SL.1.4)

- ✓ Accurately identify *shallow*/*deep, cool*/*warm,* and *dark*/*light* as antonyms, and provide other examples of common antonyms (L.1.5a)
- ✓ Prior to listening to "Animals of the Saltwater Habitat," orally identify what they know and have learned about freshwater habitats

Core Vocabulary

plankton, *n.* Very small animals or plants that drift in salt or fresh water
Example: The blue whale eats a type of animal plankton called krill.
Variation(s): none

regeneration, *n.* The process of regrowing a body part, such as a limb or an organ
Example: If one of the starfish's arms is cut off, the starfish grows a new arm through a process called regeneration.
Variation(s): none

shallow, *adj.* Not deep
Example: He swam in the shallow end of the pool because he was just learning how to swim.
Variation(s): shallower, shallowest

slopes, *v.* Inclines or is at an angle
Example: A hill that slopes downward is good for sledding.
Variation(s): slope, sloped, sloping

valleys, *n.* Lowlands between two areas of highland
Example: The river flowed in the valley between the two mountains.
Variation(s): valley

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**		10
	Essential Background Information or Terms	globe	
	Purpose for Listening		
Presenting the Read-Aloud	**Animals of the Saltwater Habitat**	world map or globe	15
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Shallow		5
	Complete Remainder of the Lesson Later in the Day		
Extensions	**Habitat Review**	Image Cards 1–26; Habitat Posters	20

Animals of the Saltwater Habitat

8A

Introducing the Read-Aloud — *10 minutes*

What Have We Already Learned?

Ask students to share what they have learned about a freshwater habitat.

- Why is it called "freshwater"? (no salt)
- What are some of the plants that live in a freshwater habitat? (cattails, water lilies)
- What are some of the animals that live there? (frogs, ducks, fish)

Essential Background Information or Terms

Tell students that they are now going to learn about the other water habitat called a saltwater habitat. Remind them that they have already learned about one particular saltwater habitat when they studied the Arctic Ocean habitat. Help students locate the Arctic Ocean on the globe.

Explain that for many years, only four oceans were recognized—the Arctic, Pacific, Atlantic, and Indian—all saltwater habitats. Some years ago, however, the Southern Ocean, which lies along the coastline of Antarctica, was designated as the fifth ocean. Show and name these oceans on the globe. Point out where you live in comparison with the oceans. Which ocean is the closest? Which ocean is the farthest away?

Purpose for Listening

Explain that the one thing all saltwater habitats have in common is that the water is salty. Tell students to listen carefully to find out more about oceans and saltwater habitats.

Presenting the Read-Aloud **15** *minutes*

Animals of the Saltwater Habitat

Show image 8A-1: Rattenborough in a boat

Welcome to the last habitat that we are going to explore. In the last read-aloud, we explored freshwater habitats. Now, we're going to learn about another kind of water habitat—a saltwater habitat. Saltwater habitats, as you could guess from their name, contain lots of salt. This means that we can't use salt water for drinking. Would you like to drink a cup of salty water? No thanks!

Show image 8A-2: Planet Earth

It's hard to imagine, but more of the earth is covered in water than is covered with land. Most of that water is salt water in oceans and seas. Oceans are huge areas of salt water that stretch all around our planet, and they are home to almost half of the world's species of animals and millions of different plants. The water in the ocean comes from rain as well as from rivers and streams that flow into the ocean. Seas are smaller areas of salt water that have land around them or around part of them.

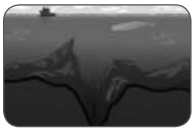
Show image 8A-3: Coastline

I've come to the largest ocean, the Pacific, to show you a bit more about ocean habitats and the plants and animals that live in them. [1] I'm standing on a beach looking out at the water. You can see that the waves are crashing onto the beach. This beach, and any land that runs alongside the ocean, is called the coastline, or shoreline. Now, you may think that when you are standing on the land looking at the water, that the land stops where the water starts. It certainly looks that way. But let me get my trusty scuba gear out and walk into the water.

Now that I'm in here, I'm still standing on land; it's just that the land is under the water. The land **slopes** downward the farther I go out into the water, which means the water is getting deeper and deeper. [2]

1 [Point to the Pacific Ocean on a world map or globe.]

2 [Visually demonstrate with an object, such as a wooden incline block or wedge, or illustrate on the chalkboard, what the word *slopes* means.]



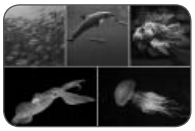
Show image 8A-4: Ocean floor

The interesting thing about the ocean floor, which is the land under the ocean water, is that it isn't flat. As on land, the earth beneath the ocean waters has both mountains and **valleys.** [3] This makes some areas of water in the ocean deeper than others.

The Pacific Ocean is full of both plant and animal life, but not all of them share the same space. The conditions under the water are very different in various places. Some parts are deep, and some are **shallow;** [4] there are cool parts, and there are warm parts; some are dark, and some are full of light.

3 Mountains are areas of land that are very high where the land peaks. Valleys are areas of land that are low and that are in between two high areas, such as mountains.

4 *Shallow* is the antonym, or opposite, of *deep*—in other words, not deep.



Show image 8A-5: Sealife

There are plants and animals in nearly every part of the ocean—some in the deep, open waters far from the land, and some in the shallow waters closer to the shore. Some animals, like turtles, jellyfish, and crabs, live closer to the shore where it's shallower and warmer.

Some animals like it better near the surface of the water, and others prefer to live down at the very bottom of the ocean on the deep ocean floor. They have all had to adapt to the conditions of their habitats. For instance, the animals that live in the deeper parts of the ocean have had to adapt to total darkness, because the sun's light just can't reach that deep.

Some fish, like the devilfish, have very large mouths and sharp teeth so that they can catch their prey as easily as possible. Other sea creatures have feelers on their bodies that help them feel where their food is. And some animals make their own light with special chemicals in their bodies, like when you carry a flashlight in the dark!

Show image 8A-6: Coral reef

I have now arrived at a special part of a saltwater habitat called a coral reef, which is made up of many tiny animals called corals. Corals stay in one place all their adult lives. They have stomachs and mouths and even skeletons! These skeletons can be on the inside or outside of the coral animals and are also called coral.

When the coral animal dies, its skeleton remains in place and other coral animals will come and live on top of the old skeletons. The colony in which the coral lives is called a coral reef. [5]

5 So the coral reef has both coral animals and the skeletons of those animals.

Show image 8A-7: Rattenborough scuba diving

I'm here in the Pacific Ocean at a coral reef. In addition to the coral, there are many other kinds of animals around a reef! I have found everything from fish and shellfish, to octopi and sharks, to snails and turtles. [6]

6 *Octopi* is the plural of *octopus*—one octopus, but many octopi.

Show image 8A-8: Starfish

Here is an animal that lies in and around this coral reef and whose name most of you can probably guess based on its shape. It's a starfish! This starfish, also known as a seastar, has five arms, which make it look like a star. Although it is called a starfish, it's not actually a fish. It belongs to a group of animals that have a spiny skin all over their bodies. If I touch the starfish, I can feel that its body is covered with tiny, hard bumps that help protect it from predators, such as sharks, manta rays, and other fish. [7] Starfish are also able to protect themselves in another amazing way: if another animal actually catches and bites off one of the starfish's arms, the starfish will not die, and it can still escape! In time, a new arm will grow back to replace the missing arm! When an animal regrows a missing body part, it's called **regeneration.**

7 What is a predator? (an animal that eats other animals)

Show image 8A-9: Starfish on ocean floor

The starfish doesn't swim. It crawls very slowly along the ocean floor using hundreds of tiny tube feet. These feet attach to whatever the starfish is crawling over. As it crawls along the floor, the starfish is always on the lookout for food. This starfish's prey includes fish, snails, clams, oysters, and crabs.

Show image 8A-10: Lobster

Here is another animal that lives in salt water. This shellfish is called a lobster. Lobsters live on the ocean floor in openings between rocks. Their hard shell stops most other animals from trying to eat them. Lobsters have many legs that they use for

crawling about, and they use antennae on their head to feel their way along the murky ocean floor. I have to watch out for that lobster's claws! They are called pincers, and they are very strong! The lobster uses them to defend itself against its prey, and to catch and crush its own food.

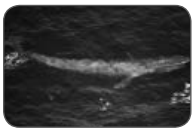
Lobsters are carnivores; they eat fish, worms, and other shellfish. I'm going to move out of the way of this lobster before I get squeezed!

Show image 8A-11: Hammerhead shark

Looks like I moved right into the path of another predator. This is a hammerhead shark. If you take a look, you can see how the hammerhead got its name. Its head is very thick, and it looks like a hammer from above, with an eye and a nostril on each end. The hammerhead shark is a large fish, growing up to twenty feet long and weighing over five hundred pounds. That's about the same weight as ten first graders! Hammerheads like to live in warm waters, so they are mostly found near the coast where the waters are shallow and warmer.

Show image 8A-12: Shark swimming near reef

Sharks are carnivores. The hammerhead's favorite food is a fish called a ray, but it also likes to eat octopus, lobster, crab, and fish, including other sharks. Most sharks have smooth and slender bodies, which help them to swim fast. Their mouths are full of sharp teeth to help them catch their prey.



Show image 8A-13: Blue whale

Let's go back up to the surface. There's a sea animal I'm sure you'll want to see, but we have to travel farther out to sea away from the coral reef and into deeper water to see it. This amazing creature is the biggest animal in the world. It's a blue whale! Blue whales have blue-gray skin and are covered in a layer of blubber that helps keep them warm in the frigid ocean depths.[8] Blue whales are so big that they can weigh as much as twenty-five elephants! In fact, blue whales are the biggest animals known to have lived on earth—even bigger than dinosaurs!

8 What is blubber? (a layer of fat that keeps the animal warm)

Show image 8A-14: Blue whale blowhole

The blue whale spends all its time living in deep water, but unlike fish, it can't breathe underwater because it does not have gills. It needs to breathe air just like we do. The blue whale can hold its breath and stay under the water for as long as thirty minutes before eventually coming up for air. It breathes using blowholes on the top of its head. Sometimes, when it does come up for air, it breathes out a huge fountain of water from the blowholes.

Blue whales are carnivores. They eat lots of food to build up their blubber during the summer months when food is easy to find. Blue whales eat teeny, tiny sea creatures called **plankton.** The plankton that blue whales eat are small shrimp-like shellfish that are about the size of your little finger. It's incredible to think that the biggest animal on Earth eats one of the smallest animals on Earth.

The ocean is so huge and deep that we could spend all year looking at the plants and animals that live there and still not see them all. In fact, there are still many living things in the ocean that people—and adventurous rats—have not even discovered yet. I hope you've enjoyed learning about the animals in this saltwater habitat in the Pacific Ocean. We still have one more stop to make on our worldwide tour of habitats. I'll see you next time!

Discussing the Read-Aloud **15** *minutes*

Comprehension Questions **10** *minutes*

1. *Inferential* What makes a water habitat a saltwater habitat? (The water contains lots of salt.)

2. *Inferential* Name the five oceans on Earth. (Arctic, Atlantic, Pacific, Indian, Southern) Are oceans freshwater or saltwater habitats? (saltwater)

3. *Inferential* How would you describe the ocean floor? Is it flat and level, or does it go up and down? (It goes up and down, or slopes, just like land outside of the oceans; it has mountains and valleys.)

4. *Inferential* What are some of the ways that animals have adapted to the saltwater habitat? (large mouths and sharp teeth to catch prey; feelers to find food in the dark; chemicals to make light; etc.)

5. *Inferential* Describe the types of animals that live in this saltwater habitat called the Pacific Ocean. (starfish: shaped like a star; hammerhead shark: head shaped like a hammer; lobster: lives on the ocean floor; etc.) Do the animals that you learned about in the Arctic Ocean—walruses and polar bears—also live in the Pacific Ocean? (no) Why not? (The climate and other conditions are different.)

Show image 8A-9: Starfish on ocean floor

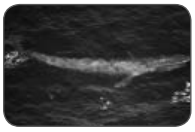
6. *Literal* What animal is this? (starfish) Starfish eat fish, snails, clams, oysters, and crabs. Is the starfish a carnivore, omnivore, or herbivore? (carnivore) You heard about starfish and regeneration. What does that mean? (It can regrow parts of its body.)

Show image 8A-10: Lobster

7. *Literal* What animal is this? (lobster) Lobsters eat fish, worms, and other shellfish. Is the lobster a carnivore, omnivore, or herbivore? (carnivore) Where does the lobster find shelter? (under and around rocks and coral reefs)

Show image 8A-11: Hammerhead shark

8. *Literal* What animal is this? (hammerhead shark) Hammerhead sharks eat lobsters, crabs, fish, and other sharks. Is the hammerhead shark a carnivore, omnivore, or herbivore? (carnivore)



Show image 8A-13: Blue whale

9. *Literal* What animal is this? (blue whale) Blue whales eat teeny, tiny, shrimp-like animals called plankton. Is the blue whale a carnivore, omnivore, or herbivore? (carnivore) Do blue whales have gills to breathe underwater? (no) How do blue whales breathe? (through blowholes on the top of their heads)

[Please continue to model the *Question? Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

10. *Evaluative* ***What? Pair Share:*** Asking questions after a read-aloud is one way to see how much everyone has learned. Think of a question you can ask your neighbor about the read-aloud that starts with the word *what.* For example, you could ask, "What did you learn about in today's read-aloud?" Turn to your neighbor and ask your *what* question. Listen to your neighbor's response. Then your neighbor will ask a new *what* question, and you will get a chance to respond. Finally, I will call on several of you to share what you discussed with your partners.

11. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Shallow *5 minutes*

1. In the read-aloud today you heard, "The conditions under the water are very different in various places. Some parts are deep, and some are *shallow;* there are cool parts, and there are warm parts; some are dark, and some are full of light."
2. Say the word *shallow* with me.
3. If something is shallow, it is not very deep.
4. The water in the mud puddle is shallow.
5. Can you think of places where you have seen shallow water? Try to use the word *shallow* when you talk about it. [Ask two or three students. If necessary guide and/or rephrase their answers, "The water in the _____ is shallow."]
6. What's the word we've been talking about?

Use an *Antonyms* activity for follow-up. Directions: The opposite, or antonym, of *shallow* is *deep.* You just heard some other antonyms used to describe the ocean: "Some parts [of the ocean] are deep and some are shallow; there are cool parts and there are warm parts; some are dark and some are full of light." We call the words *shallow* and *deep* antonyms because they have opposite meanings. Are there other pairs of words in the sentence that have opposite meanings? (*cool* and *warm*; *dark* and *light*)

[Ask students to provide other examples of antonyms.]

Complete Remainder of the Lesson Later in the Day

Animals of the Saltwater Habitat

8B

Extensions

***20** minutes*

Habitat Review

Go through all of the Habitat Posters, and review with students the characteristics of each habitat (dry, wet, hot, cold, etc.). Discuss with students which animals and plants live in each habitat and how they adapt in order to survive.

Hand out Image Cards 1–26 to students. Go through the cards, habitat by habitat, and have students match each Image Card, one at a time, to the correct habitat. Briefly discuss with students each of the animals and their characteristics, and how the plant or animal adapts to its environment.

Habitat Destruction and Endangered Species

9

☑ *Lesson Objectives*

Core Content Objectives

Students will:

- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Identify the characteristics of the bald eagles' habitat
- ✓ Explain why and how habitat destruction can cause extinction

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Identify the reasons the author of "Habitat Destruction and Endangered Species" gives for the classification of bald eagles as an endangered species (RI.1.8)
- ✓ Ask and answer *when* questions orally, requiring literal recall and understanding of the details or facts from "Habitat Destruction and Endangered Species" (SL.1.2)
- ✓ Prior to listening to "Habitat Destruction and Endangered Species," orally identify how animals have adapted to various habitats

Core Vocabulary

destroy, *v.* To completely ruin something
Example: It would destroy the forest if someone cut down all the trees.
Variation(s): destroys, destroyed, destroying

endanger, *v.* To put in danger's or harm's way; to create a dangerous situation
Example: A forest fire would endanger all of the animals that make the forest their home.
Variation(s): endangers, endangered, endangering

endangered species, *n.* A species present in such small numbers that, in the future, it may no longer exist
Example: The bald eagle used to be an endangered species because there were very few alive and people were destroying their habitat.
Variation(s): none

extinction, *n.* The end of a species because of the death of all its members
Example: Dinosaurs once lived on earth but faced extinction because of changes to their habitat.
Variation(s): none

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**		10
	Purpose for Listening		
Presenting the Read-Aloud	**Habitat Destruction and Endangered Species**	U.S. map	15
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Destroy		5
	Complete Remainder of the Lesson Later in the Day		
Extensions	**Brainstorming Links**	chart paper, chalkboard, or whiteboard	20

Habitat Destruction and Endangered Species

9A

Introducing the Read-Aloud — *10 minutes*

What Have We Already Learned?

Ask students what it means if an animal or plant is *adapted* to its habitat. Tell students that it takes plants and animals a long time to adapt to their environment. Have them name several animals or plants they have learned about in the read-alouds and describe how they are well-adapted to their habitat and surroundings.

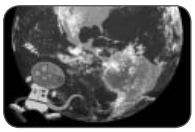
Tell students that the next read-aloud is about what happens to living things when their habitats change. Ask them what they think would happen to an animal or plant if its surroundings changed. Tell them to imagine, for example, what would happen if it got hot in the Arctic and all the snow and ice melted:

- Would the musk ox's heavy fur coat help it in the hot weather?
- Would the Arctic hare's white coat still help it blend in?
- Would walruses and seals still have a use for all that blubber?
- Blubber, heavy fur, and camouflage are all ways that Arctic animals have adapted to cold weather. Could any of these adaptations make it hard to live in the new, hot weather? Why or why not?

Purpose for Listening

Tell students to listen carefully to find out how habitat changes have affected the bald eagle.

Presenting the Read-Aloud **15** *minutes*



Habitat Destruction and Endangered Species

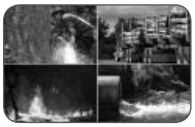
Show image 9A-1: Rattenborough in astronaut suit

Rattenborough here, delivering the final installment of our exciting habitats adventure. We have traveled all around the world, looking at some of the different habitats where plants and animals live. A lot of those habitats, such as the Arctic and the Sonoran Desert, have climates to which you and I would have a tough time adapting. [1] As we've seen, however, there are different living things in each habitat we have visited.

1 Remember that *climate* means the kind of weather a place normally has. How would you have a tough time adapting to the Arctic? to the desert?

Because some living things are so well-adapted to the specific conditions of their specific habitats, any large change in their surroundings could make it hard for them to survive. Just think what would happen if it got even a little colder in the desert: some of those animals who are so good at keeping cool wouldn't know how to stay warm. Or what if it stopped raining in the rainforest? What would happen to all of those plants that need lots of water? Or what if something happened to disrupt the food chain of a certain animal? If that animal relied on a certain type of plant or animal to eat, and that food source was taken out of the habitat, that animal would no longer have food it needs to survive.

Sometimes habitats change because the temperature or the weather changes, but unfortunately, people often affect habitats as well. Whether they realize it or not, people can make it very difficult for plants and animals to survive.



Show image 9A-2: Humans affecting the earth

From cutting down trees or starting forest fires, to dumping dangerous waste and chemicals into our rivers—people's actions can **endanger** lots of species of plants and animals. [2]

2 To endanger plants and animals means to put them in danger's way. So, people's actions can harm, or even kill, lots of plants and animals.

Sometimes people's actions **destroy** entire habitats. [3] For example, someone walking in a forest might light a <u>match</u> and

3 To destroy something means to ruin or break it.

drop it, and then the whole forest might burn.[4] Even if they were not harmed by the fire itself, many animals that used to live in trees would no longer have a place to live. When they lose their homes, animals find it much harder to continue to live in a particular habitat. If they can't find new places to live, the animals will not survive. After a while, there will be fewer and fewer of these kinds of animals alive in the wild. When that happens, we say they have become an **endangered species.**[5] We say these species are endangered for a very good reason: they are in danger of **extinction.**[6] An animal or plant that is extinct has died out and does not exist *anywhere* in the world anymore.

4 Here the word *match* means a thin piece of wood with a special tip that produces a fire. The word *match* can also refer to a contest between two or more players or teams.

5 A species is a group of living things that are all similar. So an endangered species is a group of living things that could die out completely.

6 *Extinction* means dying out forever.

Show image 9A-3: Bald eagle in tree

I'm on a mission to tell you about one animal that can teach us a lot about endangered species and how to save them. I have come here to Washington State, in the northwestern part of the United States, to show you an amazing bird called a bald eagle.[7] Look up at that tree there, and you will see one of these eagles perched on the very top branch. You may recognize the bald eagle because it is one of the national symbols of our country. Drawings of the eagle appear as a symbol on American money and in many other places. Believe it or not, the bald eagle was almost extinct in the United States several years ago! If that had happened, there would be no bald eagles still living. So, we're grateful to be able to spot this bald eagle today.

7 [Point to Washington State on a U.S. map.]

Show image 9A-4: Bald eagle in flight

Bald eagles are scavengers, but they also eat rats and other small animals, so I'd better stay out of the way.[8] I think that the bald eagle looks very grand, don't you? It is covered with dark brown feathers, and its head and tail are both white. Bald eagles are some of the largest birds living in this country. They can grow up to three feet tall, which is almost as tall as a first grader! Wow—this one has just taken off into the air, and you can see that it has huge wings. In fact, their wings can spread to about eight feet in length. While this eagle is flying around, let me tell you more about these special birds.

8 What is a scavenger?

Show image 9A-5: Housing development

There used to be thousands of bald eagles in the United States. But farmers started to hunt them because they thought the eagles were killing their farm animals. Then, later, people started to cut down the trees in which the eagles built their nests to make way for roads, houses, and shopping malls.[9] With fewer places for them to make their homes, eagles found it harder and harder to survive, and they started to die out. Soon, there weren't very many bald eagles left in the whole United States. People started to notice that there were fewer and fewer bald eagles, and they decided to find out why.[10]

9 Do you think it caused problems when people cut down trees that the eagles used to build their nests in? Why or why not?

10 Why do you think the eagles were dying out?

Scientists began to study the eagles, and they discovered two things.[11] The first was that a lot of eagles didn't have enough room to build their nests. Eagles do not like to live in the same area as other eagles, so they build their nests far away from each other. They like places that are very peaceful, and they need huge, strong trees that can hold nests big enough for the adults and their babies to live.

11 When scientists discover things, they learn new information.

The scientists discovered that the eagles didn't have enough room in the areas where they had been living because people were chopping down trees in order to build more roads and buildings. People were destroying the bald eagles' habitat.

Show image 9A-6: Farmers spraying pesticide

The other thing that scientists found out was that something bad was getting into the bald eagles' food supply. Farmers sometimes use chemicals to keep bugs from eating their crops. One chemical, though, made the eggs that the eagles laid much thinner and easier to break. Because of this, many eagle eggs were breaking before they could hatch. No one knew before then that the chemical was hurting the eagles, but it was.

Show image 9A-7: Bald eagle eggs

Luckily, the scientists found out which chemical was harming the eagles' eggs. Using the scientists' information, the United States government made laws to protect the bald eagle and its habitat so that the eagles' food no longer contained the harmful chemical. Thanks to these laws, more eagles were born, and the numbers of eagles started to rise again. [12] Now, bald eagles have made an amazing comeback, but people must always be careful to protect their habitat.

12 What two things were hurting bald eagles?

Show image 9A-8: Bald eagle nest

This bald eagle has returned to its nest up in that tree. Maybe it has some chicks up there that it needs to feed, or maybe it's just trying to keep warm. It is pretty chilly!

And speaking of returning to the nest, I'm afraid it's time for me to go home now. I've really enjoyed our trip around the world's habitats, and I hope that you have, too! Mrs. Rattenborough and my kids miss me, and to tell the truth, it's been a dangerous expedition for me. I'll be glad to get out of danger and into the safety of my lovely home under the steps. Home, sweet home—or maybe I should say, "Habitat, sweet habitat!"

Discussing the Read-Aloud **15** *minutes*

Comprehension Questions **10** *minutes*

1. *Literal* What is an endangered species? (a species that could die out because there are so few still living)
2. *Literal* What is extinction? (when an animal or plant dies out completely)
3. *Inferential* Why do changes in an animal's habitat make it hard for it to survive? (Animals are already so well-adapted to the habitat they live in. They can't adapt or make changes to the new conditions of their habitat.)
4. *Inferential* What can cause a habitat to change? (changes in temperature, changes in weather, people's actions)

5. *Inferential* How do people affect habitats? (They can hurt them by building cities and roads, cutting down trees, etc. They can protect them by making careful laws about where to build, and by avoiding chemicals that harm animals like the bald eagle.)

6. *Inferential* The author of the read-aloud said that bald eagles were becoming an endangered species. What reasons did the author give for the statement that eagles were becoming endangered? (They didn't have enough space to build their nests, and a chemical in their food supply was making their eggs very breakable.)

7. *Evaluative* Why do you think it is important to protect animals' habitats? (Answers may vary.)

[Please continue to model the *Question? Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

8. *Evaluative* ***When? Pair Share:*** Asking questions after a read-aloud is one way to see how much everyone has learned. In a moment you are going to ask your neighbor a question about the read-aloud that starts with the word *when.* For example, you could ask, "When is an animal considered extinct?" Turn to your neighbor and ask your *when* question. Listen to your neighbor's response. Then your neighbor will ask a new *when* question, and you will get a chance to respond. I will call on several of you to share your questions with the class.

9. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Destroy *5 minutes*

1. In the read-aloud today you heard, "Sometimes people's actions *destroy* entire habitats."
2. Say the word *destroy* with me.
3. To *destroy* something means to ruin, break, or end it.
4. If I built a big tower of blocks, I could destroy it by knocking it over.
5. What are some ways you can help to NOT destroy the habitat? Try to use the word *destroy* when you talk about it. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "By doing _____, I will not destroy a habitat."]
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: I am going to give you several examples of people doing things. If the action describes someone destroying something, say, "That would destroy something." If it does not, say nothing.

1. tearing up your homework (That would destroy my homework.)
2. coloring in a coloring book
3. shaking hands with a new friend
4. throwing a glass on the floor (That would destroy the glass.)
5. throwing a sandwich into a puddle (That would destroy the sandwich.)

Complete Remainder of the Lesson Later in the Day

Habitat Destruction and Endangered Species

9B

Extensions — *20 minutes*

Brainstorming Links

Remind students that the read-aloud showed how people's actions have an effect on animals' habitats. Explain that you are going to talk about the read-aloud and that you are going to write down what they say, but that they are not expected to be able to read what you write because they are still learning all the rules for decoding. Emphasize that you are writing what they say so that you don't forget, and tell them that that you will read the words to them.

Draw a large circle on chart paper, a chalkboard, or a whiteboard. Label the circle "Eagles." Read the label to students and tell them you want them to think of words that relate to the eagles from the read-aloud.

Ask, "What sort of things do eagles need to survive?" To start them off, you may want to say something like, "The eagles like to build nests for their young." Write the word *nests* inside its own circle on chart paper, a chalkboard, or a whiteboard, and draw a line from the "Eagles" circle to the "Nests" circle. Ask, "What else was important to the eagles?" (eggs, food, land, large numbers, etc.) As students respond, write each of their answers in its own circle surrounding the main "Eagles" circle, and draw a line to connect the two.

When the class has created a substantial word map, reread the words that students brainstormed. Discuss both negative and positive ways in which people can affect these aspects of the eagles' lives. Feel free to encourage speculation, but also review the explanations provided in the read-aloud, emphasizing the impact of habitat destruction.

Domain Review

DR

Note to Teacher

You should spend one day reviewing and reinforcing the material in this domain. You may have students do any combination of the activities provided, in either whole group or small group settings.

Core Content Objectives Addressed in This Domain

Students will:

- ✓ Explain what a habitat is
- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Identify the characteristics of the Arctic tundra habitat
- ✓ Identify the characteristics of the Arctic Ocean habitat
- ✓ Explain how Arctic animals have adapted to the Arctic tundra and Arctic Ocean habitats
- ✓ Identify the characteristics of the desert habitat
- ✓ Explain how desert animals have adapted to the desert habitat
- ✓ Classify animals on the basis of the types of food that they eat (herbivore, carnivore, omnivore)
- ✓ Identify the characteristics of the grassland habitat
- ✓ Explain how grassland animals have adapted to the grassland habitat
- ✓ Match specific plants and animals to their habitats
- ✓ Identify the characteristics of the temperate deciduous forest habitat
- ✓ Explain how temperate deciduous forest animals have adapted to the temperate deciduous forest habitat
- ✓ Identify the characteristics of the tropical rainforest habitat
- ✓ Explain how tropical rainforest animals have adapted to the tropical rainforest habitat

- ✓ Classify water habitats as either freshwater or saltwater habitats
- ✓ Identify the characteristics of the freshwater habitat
- ✓ Explain that salt water covers most of Earth and is found in oceans
- ✓ Identify and locate the oceans of the world on a globe: Arctic, Pacific, Atlantic, Indian, Southern
- ✓ Describe the landscape of the ocean floor
- ✓ Describe ocean life as very diverse
- ✓ Match saltwater plants and animals to the saltwater habitat
- ✓ Identify the characteristics of the bald eagles' habitat
- ✓ Explain why and how habitat destruction can cause extinction

Activities

Image Review

Show the Flip Book images from any read-aloud again, and have students discuss the read-aloud using the images.

Image Card Review

Materials: Image Cards 16–26

In your hand, hold Image Cards 16–26 fanned out like a deck of cards. Ask a student to choose a card but not show it to anyone else in the class. The student must then perform an action or give a clue about the picture s/he is holding. For example, for the hammerhead shark, the student may describe the habitat the hammerhead shark lives in, what it eats, and what it looks like. The rest of the class will guess what animal or plant is being described. Proceed to another card when the correct answer has been given.

Domain-Related Trade Book or Student Choice

Materials: Trade book

Read a trade book to review a particular habitat; refer to the books listed in the Introduction. You may also choose to have the students select a read-aloud to be heard again.

Key Vocabulary Brainstorming

Materials: Chart paper, chalkboard, whiteboard

Give students a key domain concept or vocabulary word such as *destroy.* Have them brainstorm everything that comes to mind when they hear the word. Record their responses on chart paper, a chalkboard, or a whiteboard for reference.

Class Book: Habitats

Materials: Drawing paper, drawing toolst

Tell the class or a group of students that they are going to make a class book to help them remember what they have learned in this domain. Have the students brainstorm important information about the last two habitats they have just learned about (freshwater habitat and saltwater habitat). Then have them brainstorm important information about habitat destruction. Have each student choose one idea to draw a picture of and then write a caption for the picture. Bind the pages to make a book to put in the class library for students to read again and again.

Habitats

Show students the Habitat Posters for each of the habitats they have learned about, and ask students to describe the characteristics of animals that live there. Extend this by asking students what would happen if a specific animal then had to move to another environment.

As a challenge, you may wish to do the same activity with examples of other habitats not included in the domain.

The Oceans

Materials: World map or globe

Help students locate and identify the Arctic, Pacific, Atlantic, Indian, and Southern Oceans. Remind students that water covers most of Earth.

Domain Assessment

DA

This domain assessment evaluates each student's retention of domain and academic vocabulary words and the core content targeted in *Animals and Habitats.* The results should guide review and remediation the following day.

There are two parts to this assessment. You may choose to do the parts in more than one sitting if you feel this is more appropriate for your students. Part I (vocabulary assessment) is divided into two sections: the first assesses domain-related vocabulary, and the second assesses academic vocabulary. Part II of the assessment address the core content targeted in *Animals and Habitats.*

Part I (Instructional Master DA-1)

Directions: I am going to say a sentence using a word you have heard in the read-alouds. First I will say the word, and then I will use it in a sentence. If I use the word correctly in my sentence, circle the smiling face. If I do not use the word correctly in my sentence, circle the frowning face. I will say each sentence two times. Let's do number one together.

1. **Habitat:** The ocean is the deer's natural habitat. (frowning face)
2. **Shelter:** During the thunderstorm, we sat in the car for shelter so we wouldn't get wet. (smiling face)
3. **Scavenger:** Rats are scavengers that will eat leftover parts of food left by other animals. (smiling face)
4. **Tundra:** The tundra is a very hot and dry habitat. (frowning face)
5. **Carnivore:** A carnivore eats only other animals. (smiling face)
6. **Herbivore:** A herbivore eats both plants and other animals. (frowning face)

7. **Omnivore:** An omnivore eats only plants. (frowning face)
8. **Climate:** The climate of a place is the type of weather it has over a long period of time. (smiling face)
9. **Hibernate:** Many bears hibernate, or sleep, during the long, cold winter. (smiling face)
10. **Fresh water:** Fresh water is the type of salty water found in oceans that you should not drink. (frowning face)

Directions: I am going to read more sentences using other words you have heard in the read-alouds. If I use the word correctly in my sentence, circle the smiling face. If I do not use the word correctly in my sentence, circle the frowning face. I will say each sentence two times.

11. **Camouflage:** I can camouflage this bright white paper by placing it on the blackboard. (frowning face)
12. **Adapted:** Over the years, animals in the Arctic have adapted to their habitat by developing ways to stay warm. (smiling face)
13. **Canopy:** While we walked through the forest, we were walking on top of the canopy created by the trees. (frowning face)
14. **Shallow:** When someone is just learning to swim, he or she will swim in the shallow water where it is not over his or her head. (smiling face)
15. **Destroy:** It would destroy the forest if someone cut down all the trees. (smiling face)

Part II (Instructional Master DA-2)

Directions: I am going to read a sentence about animals and their habitats. First, you will listen to the sentence that I read. Next, you will look at the pictures in the row and circle the correct answer(s).

1. Circle the three items that animals need in a habitat.
2. Circle the foods that omnivores eat.
3. Circle the animal that is a predator. Put a check mark next to its prey.
4. Circle the animal or animals that are carnivores.

5. Circle the animal or animals that are herbivores.
6. Circle the rainforest habitat.
7. Circle the desert habitat.
8. Circle the savanna habitat.

Directions: Now I am going to read you a series of statements. If the statement is correct, circle the smiling face. If the statement is not correct, circle the frowning face.

9. When an animal is extinct, that means there are lots of them all over the world. (frowning face)
10. The animals and plants that live in a saltwater habitat could not survive in a freshwater habitat. (smiling face)
11. The bald eagle was endangered at one point, but people took action to save the bald eagle. (smiling face)

Culminating Activities

CA

Note to Teacher

Please use this final day to address class results of the Domain Assessment. Based on the results of the Domain Assessment and students' Tens scores, you may wish to use this class time to provide remediation opportunities that target specific areas of weakness for individual students, small groups, or the whole class.

Alternatively, you may also choose to use this class time to extend or enrich students' experience with domain knowledge. A number of enrichment activities are provided below in order to provide students with opportunities to enliven their experiences with domain concepts.

Remediation

You may choose to regroup students according to particular area of weakness, as indicated from Domain Assessment results and students' Tens scores.

Remediation opportunities include:

- targeting Review Activities
- revisiting lesson Extensions
- rereading and discussing select read-alouds
- reading the corresponding lesson in the *Supplemental Guide,* if available

Enrichment

Fresh Water vs. Salt Water

Materials: Clear container; water from a pond or other freshwater environment; salt; drinking water; two small drinking cups per student

Note: Do not allow students to drink the water from a pond or other freshwater environment you have brought in. Instead, have them drink the drinking water.

Bring to class a clear container of water scooped from a pond, or other water that has been sitting outdoors in the open for at least two weeks. Use magnifying glasses, microscopes, or an overhead projector to allow students to observe some aquatic organisms.

Then, mix a half-teaspoon of salt with one cup of water to simulate the salinity of ocean water. Pour a small amount of salt water into a drinking cup for a few students. Pour drinking water into the other drinking cup for each student. Consistent with your school's policies, have the students dip a finger in the salt water and taste the water on their finger. Also have them take a small sip of the drinking water. Have them describe the difference in taste between salt water and fresh water. Explain that drinking large amounts of salt water is dangerous to the human body.

Oceans: Both Fun and Useful

Materials: World map

Have students identify the oceans on a world map, and then brainstorm ways that we use the ocean for fun and how we use it to help us get work done.

Ocean Habitat Mural

Materials: Long piece of blue paper; ocean pictures; scissors; drawing materials; glue or tape

Have students make an ocean habitat mural using resources available in the classroom, such as ocean pictures from magazines, paints, and other art supplies. Using a long piece of blue paper, students may draw, paint, or color their part of the

ocean to create a class mural. Instruct students to write or dictate a sentence under their section describing their part of the ocean. After it is finished, post the mural on the wall and have students act as docents to explain the ocean picture.

Share this picture with other Grade 1 classrooms or with other classes in the school. Extend this activity by drawing other habitats and placing pictures of animals in the correct habitat.

Habitat Destruction

Materials: Writing paper, writing tools

As a writing activity, ask students to think about what happens when a habitat is destroyed. What can they do to help protect the environment and the habitat of animals? You may wish to review the Brainstorming Links extension from Lesson 9 to give students a concrete example.

For Teacher Reference Only:

Copies of *Tell It Again! Workbook*

1B-1

Dear Family Member,

Over the next several days, your child will be learning about many different types of habitats, including the desert habitat, the rainforest habitat, and several others. Your child will learn that an animal's habitat provides food, water, and shelter for that specific animal. Your child will also learn about the adaptations that plants and animals have made in order to survive in specific environments.

Below are some suggestions for activities that you may do at home to continue to enjoy learning about animals and their habitats.

1. Safari

In class, your child will go on a safari to look for plant and animal life around the school. Go on a safari with your child around your neighborhood. Point out the different types of plant and animal life. Discuss with your child how the plants and animals meet their basic needs in your neighborhood. Point out examples of food and shelter for different animals.

2. Habitat Terrarium

Simulate a small habitat at home by making a small terrarium. Use a small fish tank or some other clear container. (Plastic containers used for food would work well also.) Add one or two inches of soil, sprinkle some grass seed on the surface, and water it as needed. Cover the container with something that will allow the air to flow. (Cheesecloth works well.)

Once the grass has started growing, add small animals like grasshoppers. Observe the habitat for a few days, and talk with your child about how the animals' needs are being met or are not being met in the mini-habitat.

3. Words to Use

Below are several of the words that your child has been learning about and using. Try to use these words as they come up in everyday speech with your child.

- *habitat*—What kind of habitat do we live in?
- *shelter*—We need to find some shelter so we can get out of the rain!
- *herbivore*—A rabbit is a herbivore, because it only eats plants.
- *carnivore*—A lion is a carnivore, because it hunts and eats other animals.
- *omnivore*—A person is an omnivore if they eat both plants and animals.

4. Read Aloud Each Day

It is very important that you read to your child each day. The local library has many books on animals and habitats, and a list of books and other resources relevant to this topic is attached to this letter.

Be sure to let your child know how much you enjoy hearing about what s/he has learned at school.

1B-2

Name _____

Recommended Resources for Animals and Habitats

1. *About Birds: A Guide for Children*, by Cathryn Sill and illustrated by John Sill (Peachtree Publishers, 1997) ISBN 978-1561451470
2. *Afternoon on the Amazon (Magic Tree House, No. 6)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1995) ISBN 978-0679863724
3. *The Arctic Habitat*, by Mary Aloian and Bobbie Kalman (Crabtree Publishing Company, 978-0778729815
4. *Buffalo Before Breakfast (Magic Tree House, No. 18)*, by Mary Pope Osborne and Sal Murdocca (Random House, 1999) ISBN 978-0679890645
5. *Cactus Hotel (An Owlet Book)*, by Brenda Z. Guiberson and Megan Lloyd (Henry Holt and Company, 1993) ISBN 978-0805029604
6. *Can We Share the World with Tigers?* by Robert E. Wells (Albert Whitman & Company, 2012) ISBN 978-0807510551
7. *Dark Day in the Deep Sea (Magic Tree House, No. 40)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 2009) ISBN 978-0375837326
8. *Desert Giant: The World of the Saguaro Cactus (Tree Tales)*, by Barbara Bash (Sierra Club Books for Children, 2002) ISBN 978-1578050857
9. *Dingoes at Dinnertime (Magic Tree House, No. 20)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 2000) ISBN 978-0679890669
10. *Dolphins and Sharks: A Magic Tree House Research Guide*, by Mary Pope Osborne, Natalie Pope Boyce, and Sal Murdocca (Random House Books for Young Readers, 2003) ISBN 978-0375823770
11. *Dolphins at Daybreak (Magic Tree House, No. 9)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1997) ISBN 978-0679883388

12. *Eve of the Emperor Penguin (Magic Tree House, No. 40)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 2008) ISBN 978-0375837333

13. *Good Morning, Gorillas (Magic Tree House, No. 26)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 2002) ISBN 978-0375806148

14. *The Great Kapok Tree: A Tale of the Amazon Rainforest*, by Lynne Cherry (Voyager Books, 2000) ISBN 978-0152026141

15. *Here Is the African Savanna (Web of Life)*, by Madeleine Dunphy (Web of Life Children's Books, 2006) ISBN 978-0977379521

16. *Here Is the Coral Reef (Web of Life)*, by Madeleine Dunphy (Web of Life Children's Book, 2006) ISBN 978-0977379545

17. *How to Hide an Octopus and Other Sea Creatures (All Aboard Book)*, by Ruth Heller (Grosset and Dunlap, 1992) ISBN 978-0448404783

18. *I See a Kookaburra!: Discovering Animal Habitats Around the World,* by Steve Jenkins and Robin Page (Houghton Mifflin, 2005) ISBN 978-0618507641

19. *Koala Lou,* by Mem Fox and illustrated by Pamela Lofts (Voyager Books, 1989) ISBN 978-0152000769

20. *Life in a Pond (Pebble Plus: Living in a Biome)*, by Carol K. Lindeen (Capstone Press, 2003) ISBN 978-0736834025

21. *Life in a Wetland (Living in a Biome)*, by Carol K. Lindeen (Capstone Press, 2006) ISBN 978-0736834056

22. *Lions at Lunchtime (Magic Tree House, No. 11)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1998) ISBN 978-0679883401

23. *Magic Tree House Fact Tracker #26: Pandas and Other Endangered Species,* by Mary Pope Osborne, Natalie Pope Boyce, and illustrated by Sal Murdocca (Random House Books for Young Readers, 2012) ISBN 978-0375870255

24. *Penguins and Antarctica (Magic Tree House Research Guides)*, by Mary Pope Osborne, Natalie Pope Boyce, and Sal Murdocca (Random House Books for Young Readers, 2008) ISBN 978-0375946646

25. *Polar Bears and the Arctic (Magic Tree House Research Guide)*, by Mary Pope Osborne and Natalie Pope Boyce (A Stepping Stone Book, 2007) ISBN 978-0375832222

26. *Polar Bears Past Bedtime (Magic Tree House, No. 12)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1998) ISBN 978-0679883418

27. *Rain Forests (Magic Tree House Research Guide)*, by Will Osborne and Mary Pope Osborne (A Stepping Stone Book, 2001) ISBN 978-0375813559

28. *Sea Monsters: A Nonfiction Companion to Dark Day in the Deep Sea*, by Mary Pope Osborne, Natalie Pope Boyce, and Sal Murdocca (Random House Books for Young Readers, 2008) ISBN 978-0375846632

29. *Snakes Are Hunters (Let's-Read-and-Find-Out Science*, Stage 2), by Patricia Lauber (HarperTrophy, 1989) ISBN 978-0064450911

30. *Starfish (Let's-Read-and-Find-Out-Science)*, by Edith Thacher Hurd and illustrated by Robin Brickman (HarperTrophy, 2000) ISBN 978-0064451987

31. *Tigers at Twilight (Magic Tree House, No. 19)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1999) ISBN 978-0679890652

32. *Un Habitat de Bosque Tropical,* by Molly Aloian and Bobbie Kalman (Crabtree Publishing Company, 2007) ISBN 978-0778783572

33. *What is a Carnivore?*, by Bobbie Kalman (Crabtree Publishing Company, 2008) ISBN 978-0778732945

34. *What is Hibernation?*, by John Crossingham and Bobbie Kalman (Crabtree Publishing Company, 2002) ISBN 978-0865059641

35. *Who Eats What? Food Chains and Food Webs (Let's-Read-and-Find-Out-Science, Stage 2)*, by Patricia Lauber and Holly Keller (HarperTrophy, 1994) ISBN 978-0064451307

36. *Why do Animals Migrate?*, by Bobbie Kalman (Crabtree Publishing Company, 2009) ISBN 978-0778733034

Websites and Other Resources

Student Resources

1. Animal Habitat Game
   http://funschool.kaboose.com/preschool/amazing-animals/games/game_animal_homes.html

2. Continent and Ocean Matching Game
   http://www.sheppardsoftware.com/world_G0_Click.html

3. Ocean Habitats
   http://kids.nationalgeographic.com/kids/photos/oceans/#/tierradelfuego-745734_15601_600x450.jpg

Family Resources

4. Arctic Tundra Photographs
   http://www.arcticphoto.co.uk/gallery2/arctic/landscape/tundra/tundra.htm

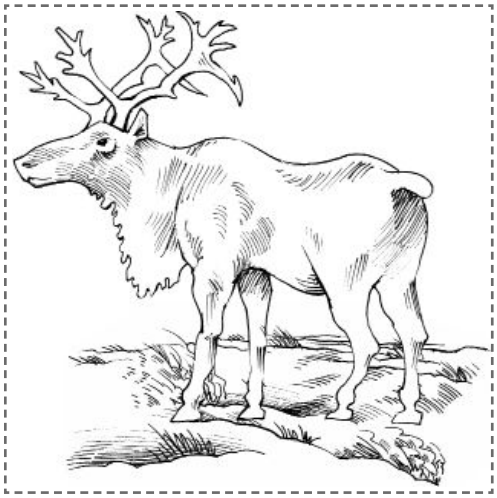
5. Endangered Animals
   http://www.sheppardsoftware.com/content/animals/kidscorner/endangered_animals/whats_the_problem.htm

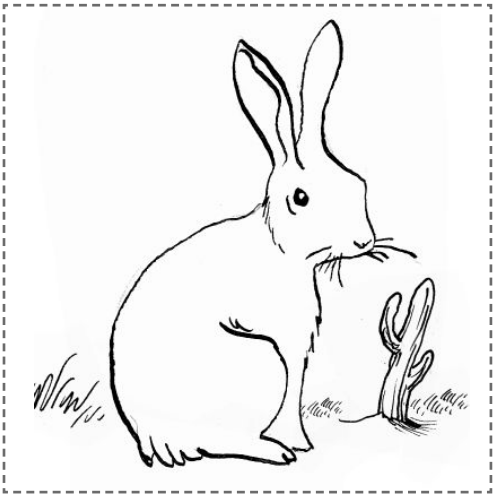
6. Museum of Natural History
   http://www.amnh.org

3B-1

Name _____

Directions: Examine the pictures on the worksheet. Decide whether the animal is a carnivore, herbivore, or omnivore. Cut out the images and sort them. Glue each category on a separate piece of paper.





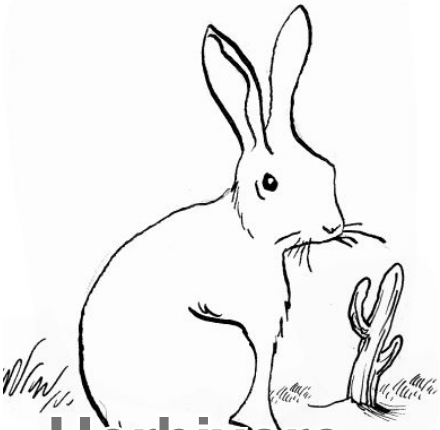
3B-1

Name **Answer Key**

Directions: Examine the pictures on the worksheet. Decide whether the animal is a carnivore, herbivore, or omnivore. Cut out the images and sort them. Glue each category on a separate piece of paper.

Carnivore

Herbivore



Herbivore

Carnivore

Omnivore

Omnivore

5B-1

Dear Family Member,

Over the past several days, your child has learned about the Arctic tundra and ocean, the desert habitat, the savanna habitat, and the temperate deciduous forest habitat. In the next few days, s/he will learn about the rainforest habitat, the freshwater habitat, and the saltwater habitat. Your child will continue to learn about adaptations that plants and animals have made in order to survive in the specific habitats mentioned above. Your child will also learn about endangered species and the causes of extinction.

Below are some suggestions for activities that you may do at home to continue to enjoy learning about animals and habitats.

1. Habitats

Ask your child which of the habitats s/he likes best and why. Discuss with your child what types of plants and animals live there and how those plants and animals are adapted to that habitat.

2. Animals and Habitats Drawing

Have your child draw a picture of one or several of the habitats s/he has learned about thus far. Talk with your child about the weather and climate of the habitat. Be sure s/he includes the plants and animals that live in that habitat. Have your child think about what s/he would have to do to adapt to the climate, and then draw himself/herself in the picture with his/her adaptations.

3. Where in the World?

Use a world map or globe to locate each of the habitats your child has learned about thus far. [Arctic (tundra and ocean), Sonoran Desert, East African Savanna, temperate deciduous forest] Show your child where you live in relation to each of these habitats.

4. Saltwater

In a few days, your child will be learning about the saltwater habitat. As preparation, you may want to help your child differentiate between salt water and fresh water. Mix a half-teaspoon of salt with one cup of water. Have your child dip his/her finger in the salt water and place it on his/her tongue. Then have him/her sip some drinking water. Discuss the difference in taste between the two.

Be sure to explain that people should not drink a lot of salt water because it is not good for their health.

5. Ocean or Saltwater Habitat Collage

Have your child make an ocean or saltwater collage. Have your child paint or color a piece of paper blue. Next, have him/her look through magazines or journals to find pictures of animals that live in the ocean. If no magazines or journals are available, have your child draw and cut out the animals from construction paper and glue them onto the blue paper.

6. Pollution and Habitat Destruction

Your child will be learning about how pollution can cause animals' habitats to be destroyed. The next time you are out with your child, point out examples of pollution. Have your child also look for examples of pollution.

7. Read Aloud Each Day

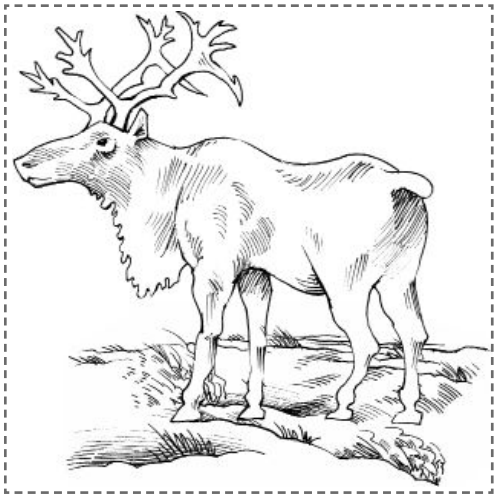
It is very important that you read to your child each day. Please refer to the list of books and other resources sent home with the previous family letter, recommending resources related to animals and habitats.

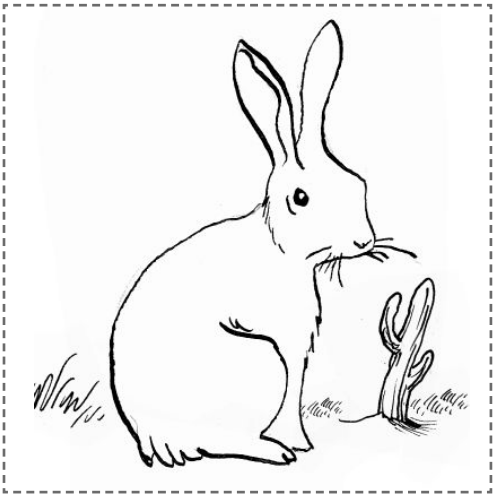
Be sure to let your child know how much you enjoy hearing about what s/he has learned at school.

PP-1

Name _____

Directions: On one sheet of paper draw the Arctic habitat. On the second piece of paper draw the desert habitat. On the third sheet of paper draw the savanna habitat. Cut out the animals, and place them on the correct habitat.





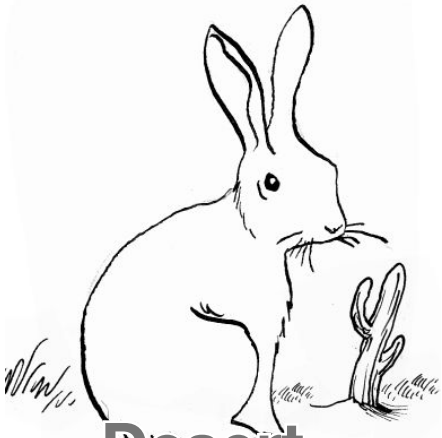
PP-1

Name **Answer Key**

Directions: On one sheet of paper draw the Arctic habitat. On the second piece of paper draw the desert habitat. On the third sheet of paper draw the savanna habitat. Cut out the animals, and place them on the correct habitat.

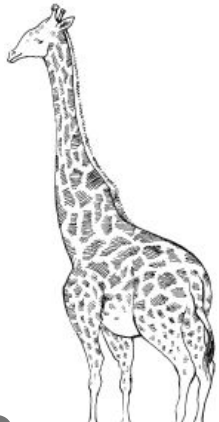
Arctic

Arctic



Desert

Desert



Savanna

Savanna

DA-1

Name _____

1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Directions: Listen to your teacher's instructions.

11.  

12.  

13.  

14.  

15.  

DA-1

Name **Answer Key**

Directions: Listen to your teacher's instructions.

1.  
2.  
3.  
4.  
5.  
6.  
7.  
8.  
9.  
10.  

11.  

12.  

13.  

14.  

15.  

DA-2

Name _____

Directions: Listen to the teacher's directions and answer each question.

1.    

2.    

3.    

4.    

5.    

6. 

7. 

8. 

9.  

10.  

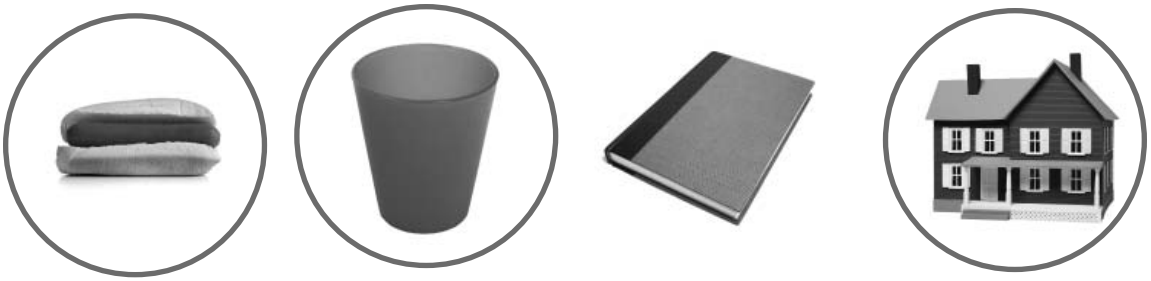
11.  

DA-2

Name **Answer Key**

Directions: Listen to the teacher's directions and answer each question.

1.

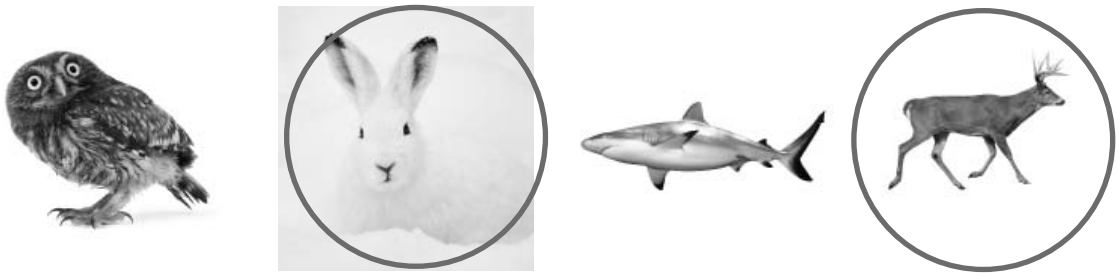


2.

3.

4.

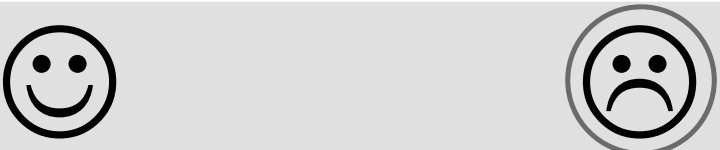
5.

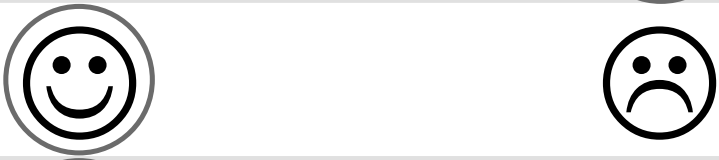


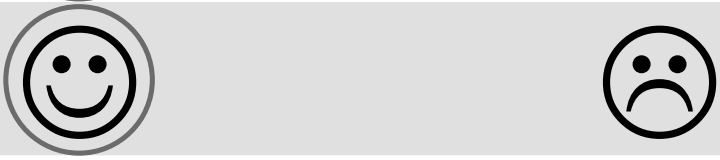
6. 

7. 

8. 

9. 

10. 

11. 

Tens Recording Chart

Use this grid to record Tens scores. Refer to the Tens Conversion Chart that follows.

Name							

Tens Conversion Chart

Number Correct

Number of Questions	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0	10																			
2	0	5	10																		
3	0	3	7	10																	
4	0	3	5	8	10																
5	0	2	4	6	8	10															
6	0	2	3	5	7	8	10														
7	0	1	3	4	6	7	9	10													
8	0	1	3	4	5	6	8	9	10												
9	0	1	2	3	4	6	7	8	9	10											
10	0	1	2	3	4	5	6	7	8	9	10										
11	0	1	2	3	4	5	5	6	7	8	9	10									
12	0	1	2	3	3	4	5	6	7	8	8	9	10								
13	0	1	2	2	3	4	5	5	6	7	8	8	9	10							
14	0	1	1	2	3	4	4	5	6	6	7	8	9	9	10						
15	0	1	1	2	3	3	4	5	5	6	7	7	8	9	9	10					
16	0	1	1	2	3	3	4	4	5	6	6	7	8	8	9	9	10				
17	0	1	1	2	2	3	4	4	5	6	6	7	7	8	8	9	9	10			
18	0	1	1	2	2	3	3	4	4	5	6	6	7	7	8	8	9	9	10		
19	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	
20	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10

Simply find the number of correct answers the student produced along the top of the chart and the number of total questions on the worksheet or activity along the left side. Then find the cell where the column and the row converge. This indicates the Tens score. By using the Tens Conversion Chart, you can easily convert any raw score, from 0 to 20, into a Tens score.

Please note that the Tens Conversion Chart was created to be used with assessments that have a defined number of items (such as written assessments). However, teachers are encouraged to use the Tens system to record informal observations as well. Observational Tens scores are based on your observations during class. It is suggested that you use the following basic rubric for recording observational Tens scores.

9–10	Student appears to have excellent understanding
7–8	Student appears to have good understanding
5–6	Student appears to have basic understanding
3–4	Student appears to be having difficulty understanding
1–2	Student appears to be having great difficulty understanding
0	Student appears to have no understanding/does not participate

Core Knowledge Language Arts

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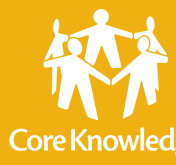

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