

Animals and Habitats

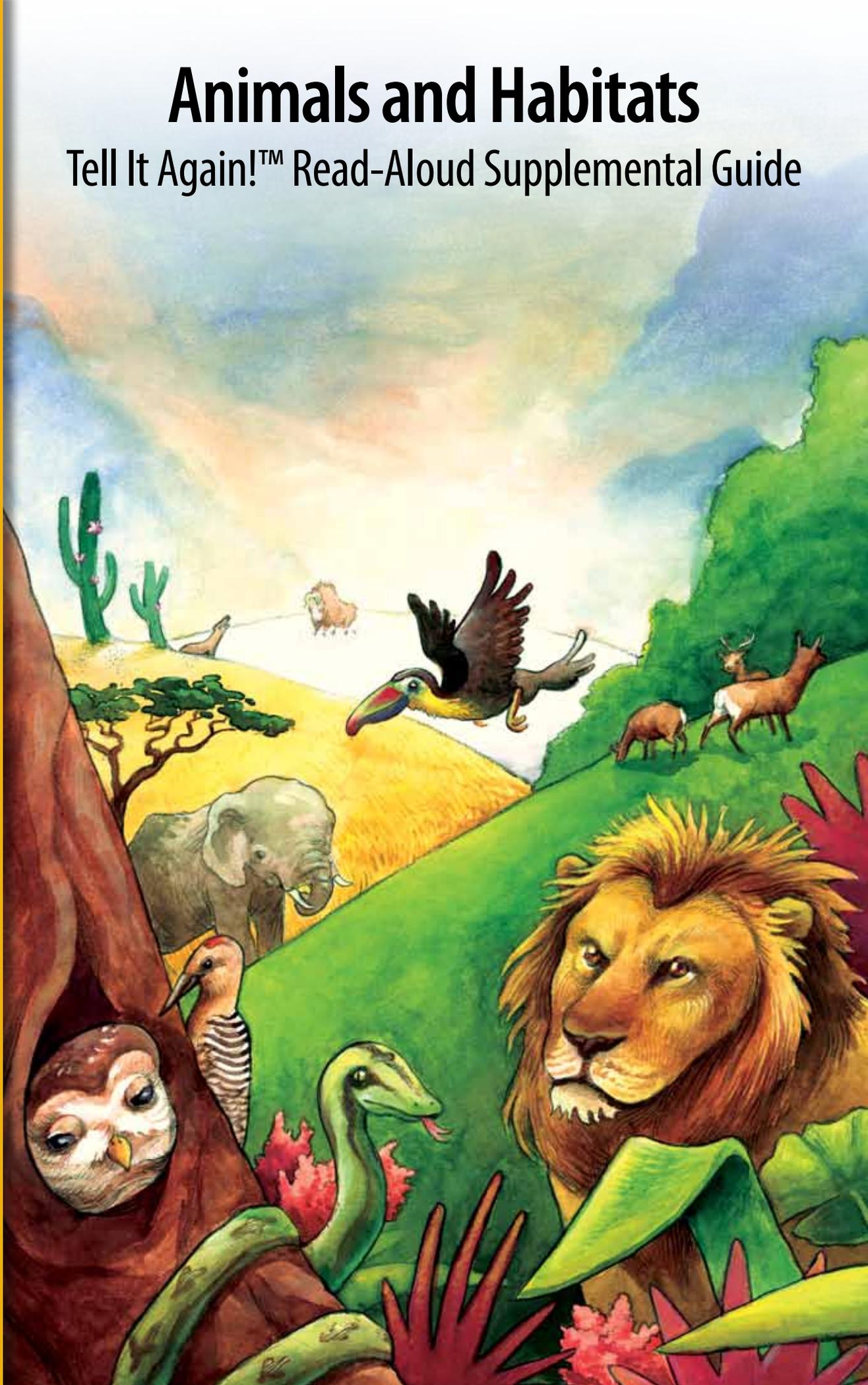
Tell It Again!™ Read-Aloud Supplemental Guide

Core Knowledge Language Arts® • Listening & Learning™ Strand



Core Knowledge®

GRADE 1





Animals and Habitats

Transition Supplemental Guide to the
Tell It Again![™] Read-Aloud Anthology

Listening & Learning[™] Strand
GRADE 1

Core Knowledge Language Arts[®]



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Preface to the Transition Supplemental Guide

This preface to the *Transition Supplemental Guide* provides information about the guide’s purpose and target audience, and describes how it can be used flexibly in various classroom settings.

Please note: The *Supplemental Guides* for the first three domains in Grade 1 contain modified read-alouds and significantly restructured lessons with regard to pacing and activities. These early *Supplemental Guides* provided step-by-step, scaffolded instruction with the intention that students receiving instruction from teachers using the *Supplemental Guide* for the first part of the year would be ready to participate in regular Listening & Learning lessons, and that teachers who have used the *Supplemental Guide* for the first part of the year would be equipped with the instructional strategies to scaffold the lessons when necessary. This shift from the full *Supplemental Guide* to the *Transition Supplemental Guide* affords teachers more autonomy and greater responsibility to adjust their execution of the lessons according to the needs of their classes and individual students.

Transition Supplemental Guides for the remaining domains will still contain Vocabulary Charts and *Supplemental Guide* activities such as Multiple Meaning Word Activities, Syntactic Awareness Activities, and Vocabulary Instructional Activities. However, the *Transition Supplemental Guides* do not have rewritten read-alouds and do not adjust the pacing of instruction; the pacing and read-aloud text included in each *Transition Supplemental Guide* is identical to the pacing and read-aloud text in the corresponding *Tell It Again! Read-Aloud Anthology*. We have, however, augmented the introductions and extensions of each lesson in the *Transition Supplemental Guides* so teachers have additional resources for students who need greater English language support. As a result, there are often more activities suggested than can be completed in the allotted time for the introduction or extension activities. Teachers will need to make informed and conscious decisions in light of their particular students’ needs when choosing which activities to complete and which to omit. We strongly recommend that teachers preview the Domain Assessment prior to teaching this domain; this will provide an additional way to inform their activity choices.

Intended Users and Uses

This guide is intended to be used by general education teachers, reading specialists, English as a Second Language (ESL) teachers, special education teachers, and teachers seeking an additional resource for classroom activities. This guide is intended to be both flexible and versatile. Its use is to be determined by teachers in order to fit the unique circumstances and specific needs of their classrooms and individual students. Teachers whose students would benefit from enhanced oral language practice may opt to use the *Transition Supplemental Guide* as their primary guide for Listening & Learning. Teachers may also choose individual activities from the *Transition Supplemental Guide* to augment the content covered in the *Tell It Again! Read-Aloud Anthology*. For example, teachers might use the Vocabulary Instructional Activities, Syntactic Awareness Activities, and modified Extensions during small-group instruction time. Reading specialists and ESL teachers may find that the tiered Vocabulary Charts are a useful starting point in addressing their students' vocabulary learning needs.

The *Transition Supplemental Guide* is designed to allow flexibility with regard to lesson pacing and encourages education professionals to pause and review when necessary. A number of hands-on activities and graphic organizers are included in the lessons to assist students with learning the content.

Transition Supplemental Guide Contents

The *Transition Supplemental Guide* contains tiered Vocabulary Charts, Multiple Meaning Word Activities, Syntactic Awareness Activities, and Vocabulary Instructional Activities. The Domain Assessments and Family Letters have been modified. In some instances, the activities in the Extensions as well as the activities in the Pausing Point, Domain Review, and Culminating Activities have been modified or rewritten. Please refer to the following sample At a Glance Chart to see how additional support is communicated to the teacher.

Exercise	Materials	Details
Introducing the Read-Aloud (10 minutes)		
Introductory Content	[Additional materials to help support this part of the lesson will be listed here.]	[A brief explanation about how the material can be used.]
Vocabulary Preview	[There will be one or two vocabulary preview words per lesson.]	
Purpose for Listening		
Presenting the Read-Aloud (15 minutes)		
<p>Note: It is highly recommended that teachers preview the read-aloud, Flip Book images, and comprehension questions to determine when to pause during the read-aloud and ask guiding questions, especially before a central or difficult point is going to be presented (e.g., While we are reading this part of the read-aloud, I want to you think about . . .) and supplementary questions (e.g., Who/What/Where/When/Why literal questions) to check for understanding.</p>		
Title of Read-Aloud	[Materials that may help scaffold the read-aloud will be listed here.]	
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions		
Word Work		
 Complete Remainder of the Lesson Later in the Day		
Extensions (20 minutes)		
Extension Activities	[Additional Extension activities may include a Multiple Meaning Word Activity, a Syntactic Awareness Activity, a Vocabulary Instructional Activity, and modified existing activities or new activities.]	

The additional materials found in the *Transition Supplemental Guide* afford students further opportunities to use domain vocabulary and demonstrate knowledge of content. The lessons of this guide contain activities that create a purposeful and systematic setting for English language learning. The read-aloud for each story or nonfiction text builds upon previously taught vocabulary and ideas and introduces language and knowledge needed for the next more complex text. The *Transition Supplemental Guide's* focus on oral language in the earlier grades addresses the language learning needs of students with limited English

language skills. These students—outside of a school setting—may not be exposed to the kind of academic language found in many written texts.

Vocabulary Charts

Vocabulary Chart for [Title of Lesson]			
Core Vocabulary words are in bold . Multiple Meaning Word Activity word is <u>underlined</u> . Vocabulary Instructional Activity words have an asterisk (*). Suggested words to pre-teach are in <i>italics</i> .			
Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding			
Multiple Meaning			
Phrases			
Cognates			

Vocabulary Charts at the beginning of each lesson categorize words into three tiers which are generally categorized as follows:

- Tier 1 words are words that are likely to appear in the basic repertoire of native English-speaking students—words such as *bear*, *owl*, and *ocean*.
- Tier 2 words are highly functional and frequently used general academic words that appear across various texts and content areas—words such as *survive*, *adapt*, and *enormous*.
- Tier 3 words are content-specific and difficult words that are crucial for comprehending the facts and ideas related to a particular subject—words such as *habitat*, *omnivore*, and *predator*.

English Language Learners and students with limited oral language skills may not necessarily know the meanings of all Tier 1 words, and may find Tier 2 and Tier 3 words confusing and difficult to learn. Thus, explicit explanation of, exposure to, and practice using Tier 1, 2, and 3 words are essential to successful mastery of content for these students (National Governors Association Center for Best Practices, Council of Chief State School Officers 2010 32–35).

In addition, the Vocabulary Chart indicates whether the chosen words are vital to understanding the lesson (labeled *Understanding*); have multiple meanings or senses (labeled *Multiple Meaning*); are clusters of words that often appear together (labeled *Phrases*); or have a Spanish word that sounds similar and has a similar meaning (labeled *Cognates*). Words in the

Vocabulary Chart were selected because they appear frequently in the text of the read-aloud or because they are words and phrases that span multiple grade levels and content areas. Teachers should be aware of and model the use of these words as much as possible before, during, and after each individual lesson. The Vocabulary Chart could also be a good starting point and reference for keeping track of students' oral language development and their retention of domain-related and academic vocabulary. These lists are not meant to be exhaustive, and teachers are encouraged to include additional words they feel would best serve their students.

Multiple Meaning Word Activities

Multiple Meaning Word Activities help students determine and clarify the different meanings of individual words. This type of activity supports a deeper knowledge of content-related words and a realization that many content words have multiple meanings associated with them. Students with strong oral language skills may be able to navigate through different meanings of some words without much effort. However, students with limited English language proficiency and minimal vocabulary knowledge may be less likely to disambiguate the meanings of words. This is why it is important that teachers have a way to call students' attention to words in the lesson that have ambiguous meanings, and that students have a chance to explore the nuances of words in contexts within and outside of the lessons.

Syntactic Awareness Activities

Syntactic Awareness Activities focus on sentence structure. During the early elementary grades, students are not expected to read or write lengthy sentences, but they might be able to produce complex sentences in spoken language when given adequate prompting and support. Syntactic Awareness Activities support students' awareness of the structure of written language, interrelations between words, and grammar. Developing students' oral language through syntactic awareness provides a solid foundation for written language development in the later elementary grades and beyond.

Vocabulary Instructional Activities

Vocabulary Instructional Activities are included to build students' general academic, or Tier 2, vocabulary. These words are salient because

they appear across content areas and in complex written texts. These activities support students' learning of Tier 2 words and deepen their knowledge of academic words and the connections of these words to other words and concepts. The vocabulary knowledge students possess is intricately connected to reading comprehension, the ability to access background knowledge, express ideas, communicate effectively, and learn about new concepts.

English Language Learners and Students with Disabilities

The *Transition Supplemental Guide* assists education professionals who serve students with limited English language skills or students with limited home literacy experience, which may include English Language Learners (ELLs) and students with special needs. Although the use of this guide is not limited to teachers of ELLs and/or students with special needs, the following provides a brief explanation of these learners and the challenges they may face in the classroom, as well as teaching strategies that address those challenges.

English Language Learners

The *Transition Supplemental Guide* is designed to facilitate the academic oral language development necessary for English Language Learners (ELLs) and to strengthen ELLs' understanding of the core content presented in the domains.

When teaching ELLs, it is important to keep in mind that they are a heterogeneous group from a variety of social backgrounds and at different stages in their language development. There may be some ELLs who do not speak any English and have little experience in a formal education setting. There may be some ELLs who seem fluent in conversational English, but do not have the academic language proficiency to participate in classroom discussions about academic content. The following is a chart showing the basic stages of second language acquisition; proper expectations for student behavior and performance; and accommodations and support strategies for each stage. Please note that ELLs may have extensive language skills in their first language and that they advance to the next stage at various rates depending on their acculturation, motivation, and prior experiences in an education setting.

Language Development Stage	Comprehension and Production	Accommodations and Support Strategies
Entering	<ul style="list-style-type: none"> • Produces little or no English • Responds in nonverbal ways • Has a minimal receptive vocabulary in English 	<ul style="list-style-type: none"> • Use predictable phrases for set routines • Use manipulatives, visuals, realia, props • Use gestures (e.g., point, nod) to indicate comprehension • Use lessons that build receptive and productive vocabulary, using illustrated pre-taught words • Use pre-taught words to complete sentence starters • Use simply stated questions that require simple nonverbal responses (e.g., “Show me . . . ,” “Circle the . . . ”) • Use normal intonation, emphasize key words, and frequent checks for understanding • Model oral language and practice formulaic expressions • Pair with another ELL who is more advanced in oral language skills for activities and discussions focused on the English language • Pair with same-language peers for activities and discussions focused on content
Emerging (Beginner)	<ul style="list-style-type: none"> • Responds with basic phrases • Includes frequent, long pauses when speaking • Has basic level of English vocabulary (common words and phrases) 	<ul style="list-style-type: none"> • Use repetition, gestures, and visual aids to facilitate comprehension and students’ responses • Use manipulatives, visuals, realia, props • Use small-group activities • Use lessons that expand receptive and expressive vocabulary, especially Tier 2 vocabulary • Use illustrated core vocabulary words • Use pre-identified words to complete cloze sentences • Use increasingly more difficult question types as students’ receptive and expressive language skills improve: <ul style="list-style-type: none"> • Yes/no questions • Either/or questions • Questions that require short answers • Open-ended questions to encourage expressive responses • Allow for longer processing time and for participation to be voluntary • Pair with another ELL who is more advanced in oral language skills for activities and discussions focused on the English language • Pair with same-language peers for activities and discussions focused on content

Transitioning (Intermediate)	<ul style="list-style-type: none"> • Speaks in simple sentences • Uses newly learned words appropriately • With appropriate scaffolding, able to understand and produce narratives • Has a much larger receptive than expressive vocabulary in English 	<ul style="list-style-type: none"> • Use more complex stories and books • Continue to focus on Tier 2 vocabulary • Introduce academic terms (e.g., making predictions and inferences, figurative language) • Use graphic organizers • Use increasingly difficult question types as students' receptive and expressive language skills improve: <ul style="list-style-type: none"> • Questions that require short sentence answers • <i>Why</i> and <i>how</i> questions • Questions that check for literal and abstract comprehension • Provide some extra time to respond • Pair with high-level English speakers for activities and discussions focused on the English language
Expanding (Advanced)	<ul style="list-style-type: none"> • Engages in conversations • Produces connected narrative • Shows good comprehension • Has and uses expanded vocabulary in English 	<ul style="list-style-type: none"> • Continue work with academic terms (e.g., making predictions and inferences, figurative language) • Use graphic organizers • Use questions that require opinion, judgment, and explanation • Pair with native English speakers
Commanding (Proficient)	<ul style="list-style-type: none"> • Uses English that nearly approximates the language of native speakers • Can maintain a two-way conversation • Uses more complex grammatical structures, such as conditionals and complex sentences. • Has and uses an enriched vocabulary in English 	<ul style="list-style-type: none"> • Build high-level/academic language • Expand figurative language (e.g., by using metaphors and idioms) • Use questions that require inference and evaluation • Pair with students who have a variety of skills and language proficiencies

(Adapted from Hirsch and Wiggins 2009, 362–364; New York Department of Education 2013; Smyk et al. 2013)

Students with Disabilities and Students with Special Needs

Students with disabilities (SWDs) have unique learning needs that require accommodations and modifications to the general education curriculum. When using the *Transition Supplemental Guide* with SWDs and students with special needs, it is important to consider instructional accommodations, tools, strategies, and Universal Design for Learning (UDL) Principles, which promote learning for all students through the use of multiple forms of representation, expression, and engagement (Hall, Strangman, and Meyer 2003).

Pacing

Pacing is the purposeful increase or decrease in the speed of instruction. Educators can break lessons into manageable chunks depending on needs of the class and follow the section with a brief review or discussion. This format of instruction ensures that students are not inundated with information. Additionally, you may want to allow students to move around the room for brief periods during natural transition points. When waiting for students to respond, allow at least three seconds of uninterrupted wait time to increase correctness of responses, response rates, and level of thinking (Stahl 1990).

Goals and Expectations

Make sure students know the purpose and the desired outcome of each activity. Have students articulate their own learning goals for the lesson. Provide model examples of desired end-products. Use positive verbal praise, self-regulation charts, and redirection to reinforce appropriate ways for students to participate and behave.

Directions

Provide reminders about classroom rules and routines whenever appropriate. You may assign a partner to help clarify directions. When necessary, model each step of an activity's instructions. Offering explicit directions, procedures, and guidelines for completing tasks can enhance student understanding. For example, large assignments can be delivered in smaller segments to increase comprehension and completion (Franzone 2009).

Instruction Format and Grouping

Use multiple instruction formats (e.g., small-group instruction, individual work, collaborative learning, and hands-on instruction). Be sure to group students in logical and flexible ways that support learning.

Instructional Strategies

The following evidence-based strategies can assist students with disabilities in learning content (Scruggs et al. 2010):

- **Mnemonic strategies** are patterns of letters and sounds related to ideas that enhance retention and recall of information. They can be used as a tool to encode information.
- **Spatial organizers** assist student understanding and recall of information using charts, diagrams, graphs, and/or other graphic organizers.
- **Peer mediation**, such as peer tutoring and cooperative learning groups, can assist in assignment completion and enhance collaboration within the classroom.
- **Hands-on learning** offers students opportunities to gain understanding of material by completing experiments and activities that reinforce content.
- **Explicit instruction** utilizes clear and direct teaching using small steps, guided and independent practice, and explicit feedback.
- **Visual strategies** (e.g., picture/written schedules, storymaps, task analyses, etc.) represent content in a concrete manner to increase focus, communication, and expression (Rao and Gagie 2006).

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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: Supplemental Guide

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: Supplemental Guide**

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									✓

Note: The Language Arts Objectives in the Lessons may change depending on teacher's choice of activities.

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., <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i>), 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 <i>why</i> 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	✓

**Alignment Chart for
Animals and Habitats: Supplemental Guide**

Lesson

		1	2	3	4	5	6	7	8	9
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									
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							✓		

**Alignment Chart for
Animals and Habitats: Supplemental Guide**

Lesson

		1	2	3	4	5	6	7	8	9
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	✓	✓	✓	✓	✓			✓	
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., <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i>), orally or in writing, requiring literal recall and understanding of the details, and/or facts of a fiction or nonfiction/informational read-aloud			✓		✓			✓	✓

**Alignment Chart for
Animals and Habitats: Supplemental Guide**

Lesson

		1	2	3	4	5	6	7	8	9
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		✓				✓			
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 <i>duck</i> is a bird that swims; a <i>tiger</i> is a large cat with stripes).									
CKLA Goal(s)	Define words by category and by one or more key attributes (e.g., a <i>duck</i> is a bird that swims; a <i>tiger</i> 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)						✓			

**Alignment Chart for
Animals and Habitats: Supplemental Guide**

Lesson

		1	2	3	4	5	6	7	8	9
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., <i>because</i>).									
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., <i>because</i>)	✓								
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		✓							

✓ 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.



Animals and Habitats

Transition Supplemental Guide Introduction

This introduction includes the necessary background information to be used in teaching the *Animals and Habitats* domain. The *Transition Supplemental Guide 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.

Lesson Implementation

It is important to note that the interactive activities in the *Transition Supplemental Guide* count on the teacher as the “ideal reader” to lead discussions, model proper language use, and facilitate interactions among student partners.

It is highly recommended that teachers preview the read-aloud, Flip Book images, and comprehension questions to determine when to pause during the read-aloud and ask guiding questions. To check for understanding—especially before a difficult point is to be presented—you might say, “While we are reading this part of the read-aloud, I want you to think about...,” or you could ask supplementary questions, such as Who/What/When/Where/Why literal questions.

Student Grouping

Teachers are encouraged to assign partner pairs prior to beginning a domain, and partners should remain together for the duration of the domain. If possible, English Language Learners should be paired with native English speakers, and students who have limited English oral language skills should be paired with students who have strong English language skills. Keep in mind that in some instances, a bilingual partner or a group of three would benefit beginning/entering ELLs, and an older student or adult volunteer may be a better arrangement for some students with disabilities. Partnering in this way promotes a social environment where all students engage in collaborative talk and learn from one another.

In addition, there are various opportunities where students of the same home-language work together, fostering their first-language use and existing knowledge to construct deeper meanings about new information.

Graphic Organizers and Domain-Wide Activities

Several different organizers and domain-wide activities are included to aid students in their learning of the content in the *Animals and Habitats* domain.

- **Where Are We?**—Help students visually see where certain habitats presented in this domain are located by using a world map, Image Cards representing a specific habitat, and yarn to connect the Image Card to where the habitat is located in the world. [**Note:** Several

habitats are located in more than one place. Suggested locations for Image Card placement are mentioned within the lesson covering each habitat.]

- **Know-Wonder-Learn (KWL) Charts**—You may wish to create a KWL Chart for a few of the habitats in this domain. Use the KWL Chart to record what students already know about a habitat (K), what they wonder about a habitat (W), and what they have learned about a habitat (L). Introduce the KWL Chart during *Purpose for Listening*, and record what students already know and what they wonder; continue the KWL Chart during *Comprehension Questions*, and record what they have learned. Revisit the KWL Chart when the class reviews the habitat.
- **Habitat Chart (Instructional Master 2B-1)**—Create a large, class Habitat Chart to record information students recall about the following five habitats: arctic, desert, savanna, forest, and rainforest.
- **Habitat Journal**—The writing project for this domain is an informational journal. Students will draw and write about a specific habitat that is presented in the read-alouds. Individual journal pages are provided as Instructional Masters in the Appendix. Domain Assessment #3 is the cover page for their *Habitat Journal*.
- **Food Chain Game (Instructional Masters 4B-1, 4B-2, and 4B-3)**—These food chain worksheets visually capture a food chain for the following habitats: savanna, arctic, and desert.
- **Rattenborough cutout (Instructional Master 4B-5)**—Students will color in and write their names on their own cutout of Rattenborough. Students can use this cutout to answer class questions or place it on the correct Habitat Poster during the Habitat Review activities.

Anchor Focus in Animals and Habitats

This chart highlights two Common Core State Standards as well as relevant academic language associated with the activities in this domain.

Anchor Focus	CCSS	Description of Focus and Relevant Academic Language
Writing	W.1.2	<i>Habitat Journal</i> : Students will create journal pages related to read-aloud content. Relevant academic language <i>journal, brainstorm, draw, label, sentence</i>
Language	L.1.1g	Use frequently occurring conjunctions (e.g., <i>and</i> and <i>or</i>); use conjunctions <i>and</i> and <i>or</i> in a list.

Domain Components

Along with this *Transition Supplemental Guide*, 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*

*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. The inclusion of 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
scavengers

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

In addition to this core vocabulary list, every lesson includes its own Vocabulary Chart. Words in this chart either appear several times in the Read-Aloud or are words and phrases that support broader language growth, which is crucial to the English language development of young students. Most words on the chart are part of the General Service list of the 2000 most common English words or part of the Dale-Chall list of 3000 words commonly known by Grade 4. Moreover, a conscious effort has been made to include words from the Primary Priority Words according to Biemiller’s (2010) *Words Worth Teaching*. The words on the Vocabulary Chart are not meant to be exhaustive, and teachers are encouraged to add additional words they feel would best serve their group of students.

Vocabulary Chart for What is a Habitat?			
Core Vocabulary words are in bold . Multiple Meaning Word Activity word is <u>underlined</u> . Vocabulary Instructional Activity words have an asterisk (*). Suggested words to pre-teach are in <i>italics</i> .			
Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	alleyway arctic desert habitat Rattenborough	adventure amazing clever survive* specific temperatures	animal food home living pond rat tree
Multiple Meaning	drain shelter* trash	place	cold fish <u>park</u> plant water
Phrases	Human-made habitats natural resources	exciting journey	easy to find just right
Cognates	ártico desierto hábitat	aventura sobrevivir* específico(a) temperatura	animal rata parque planta

References

1. Beck, Isabel L., Margaret G. McKeown, and Linda Kucan. 2008. *Creating Robust Vocabulary: Frequently Asked Questions and Extended Examples*. New York: Guilford.

2. Biemiller, Andrew. 2010. *Words Worth Teaching*. Columbus, OH: SRA/McGrawHill.
3. Dale, Edgar, and Jeanne Chall. 1995. *Readability Revisited: The New Dale-Chall Readability Formula*.
4. West, Michael. 1953. *A General Service List of English Words*. London: Longman, Green and Co.

Comprehension Questions

In the *Animals and Habitats* domain, there are three types of comprehension questions.

Literal questions assess students' recall of key details from the read-aloud; these questions are text dependent, requiring students to paraphrase and/or refer back to the portion of the read-aloud in which the specific answer to the question is provided. These questions generally address Reading Standards for Literature 1 (RL.1.1) and Reading Standards for Informational Text 1 (RI.1.1).

Inferential questions ask students to infer information from the text and think critically; these questions are also text dependent, but require students to paraphrase and/or refer back to the different portions of the read-aloud that provide information leading to and supporting the inference they are making. These questions generally address Reading Standards for Literature 2–4 (RL.1.2–RL.1.4) and Reading Standards for Informational Text 2–4 (RI.1.2–RI.1.4).

Evaluative questions ask students to build upon what they have learned from the text using analytical and application skills; these questions are also text dependent, but require students to paraphrase and/or refer back to the portion(s) of the read-aloud that substantiate the argument they are making or the opinion they are offering. *Evaluative* questions might ask students to describe how reasons or facts support specific points in a read-aloud, which addresses Reading Standards for Informational Text 8 (RI.1.8). *Evaluative* questions might also ask students to compare and contrast information presented within a read-aloud or between two or more read-alouds, addressing Reading Standards for Literature 9 (RL.1.9) and Reading Standards for Informational Text 9 (RI.1.9).

The *Supplemental Guides* include complex texts, thus preparing students in these early years for the increased vocabulary and syntax demands aligned texts will present in later grades. As all of the readings incorporate a variety of illustrations, Reading Standards for Literature 7 (RL.1.7) and Reading Standards for Informational Text 7 (RI.1.7) are addressed as well.

Student Performance Task Assessments

In the *Transition Supplemental Guide 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 (SPTAs) are identified with this icon: . 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 *Transition Supplemental Guide for Animals and Habitats*, there are opportunities in the lessons and Pausing Points 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 Activities

The *Supplemental Guide* activities that may be particularly relevant to any classroom are the Multiple Meaning Word Activities and accompanying Multiple Meaning Word Posters; Syntactic Awareness Activities; and Vocabulary Instructional Activities. Several multiple meaning words in the read-alouds are underlined to indicate that there is a Multiple Meaning Word Activity associated with them. These activities afford all students additional opportunities to acquire a richer understanding of the English language. *Supplemental Guide* activities are identified with this icon: .

Recommended Resources for Animals and Habitats

The *Transition Supplemental Guide* includes a number of opportunities in Extensions, in the Pausing Point, and in the Culminating Activities 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. A place that has food, water, and shelter for the animals and plants that live there

Example: The forest is a deer's 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

Vocabulary Chart for What is a Habitat?			
Core Vocabulary words are in bold .			
Multiple Meaning Word Activity word is <u>underlined</u> .			
Vocabulary Instructional Activity words have an asterisk (*).			
Suggested words to pre-teach are in <i>italics</i> .			
Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	alleyway arctic desert habitat Rattenborough	adventure amazing clever survive* specific temperatures	animal food home living pond rat tree
Multiple Meaning	drain shelter* trash	place	cold fish <u>park</u> plant water
Phrases	Human-made habitats natural resources	exciting journey	easy to find just right
Cognates	ártico desierto hábitat	aventura sobrevivir* específico(a) temperatura	animal rata parque planta

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud (10 minutes)		
Essential Background Information or Terms	Instructional Master 1A-1 (Living/ Nonliving T-Chart); images of living/nonliving things; chart paper	Show students images of living/nonliving things, and categorize them onto a T-Chart.
Domain Introduction	Image 1A-1	Introduce students to the narrator for this domain—Rattenborough. Practice saying his name a few times. Have students describe Rattenborough and where he lives.
Vocabulary Preview: Habitats	Images of the different habitats presented in this domain: Image 2A-2 (Arctic); Image 3A-3 (Desert); Image 4A-2 (Savanna); Image 5A-3 (Forest); Image 6A-2 (Rainforest)	Use images that show Rattenborough in different habitats to introduce students to these habitats.
Purpose for Listening		
Presenting the Read-Aloud (15 minutes)		
What is a Habitat?		Create hand motions for <i>food</i> , <i>water</i> , and <i>shelter</i> . Use these motions throughout this domain.
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions		
Word Work: Shelter		
 Complete Remainder of the Lesson Later in the Day		
Extensions (20 minutes)		
Multiple Meaning Word Activity: Park	Poster 1M (Park)	
Syntactic Awareness Activity: Conjunction <i>and</i>		

Exercise	Materials	Details
Vocabulary Instructional Activity: Survive		
Safari	Instructional Master 1B-1 (Food/ Shelter T-Chart), drawing tools; chart paper, chalkboard, or whiteboard	
Take Home Materials		
Family Letter	Instructional Masters 1B-2-4	

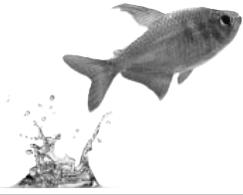
Advance Preparation

Create a T-Chart for living and nonliving things, using Instructional Master 1A-1 as a guide. Bring in images of living and nonliving things for students to categorize on the chart.

✈️ Above and Beyond: Make a copy of Instructional Master 1A-1 for students who are ready to complete this chart on their own.

Create a T-Chart for food and shelter, using Instructional Master 1B-1 as a guide. Write down the different kinds of food and shelter students saw during the “safari.”

✈️ Above and Beyond: Make a copy of Instructional Master 1B-1 for students who are ready to complete this chart on their own.



What is a Habitat?

1A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Introducing the Read-Aloud

10 minutes

Essential Background Information or Terms

10 minutes

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

5 minutes

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.

Vocabulary Preview

5 minutes

Habitats

1. In this domain, we will learn about different *habitats*.
2. Say *habitats* with me three times.
3. Habitats are places that offer food, water, and shelter for the animals and plants that live there.
4. There are many different kinds of habitats on the earth.
[Show students the different habitats covered in this domain: Image 2A-2 (Arctic); Image 3A-3 (Desert); Image 4A-2 (Savanna); Image 5A-3 (Forest); and Image 6A-2 (Rainforest). Name each habitat, and have students name them along with you.]
5. Tell your partner which habitat you are excited to learn more about.

Purpose for Listening

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



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 when there are no natural habitats around, some animals have to live in *unnatural* habitats, such as this alleyway. ⁴ In an alleyway I can find the three things I need to survive. What are those three things again? ⁵ 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.]

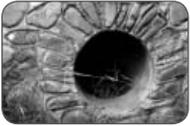
2 *Survive* means to continue living or to stay alive.

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 [You may wish to pause and talk about natural habitats (e.g., desert, forest, and ocean) and unnatural habitats (e.g., fish tank, alleyway, zoo).]

5 [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.⁶ 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.⁷

6 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.

7 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.⁸

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



9 What do you see in this picture?

← **Show image 1A-6: Arctic landscape**⁹

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.

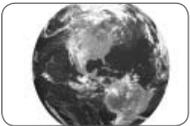


10 What do you see in this picture?

← **Show image 1A-7: Several places where people have made habitats**¹⁰

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.¹¹ In fact, people like you have been able to live in extremely hot, cold, and dry places.

11 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!

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 ran into the house for shelter when it began to rain.
5. Can you think of a shelter for different animals? Try to use the word *shelter* when you talk about it. [Suggestions: nest/bird; cave/bear; dog house/dog; hive/bee; anthill/ant; barn/cow; coop/chicken. Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “A _____ is a shelter for _____.”]
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?

1
B

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

20 minutes

↔ Multiple Meaning Word Activity

5 minutes

Definition Detective: Park

Note: You may choose to have students hold up one or two fingers to indicate which image shows the meaning being described or have a student walk up to the poster and point to the image being described.

1. In the read-aloud you heard the word *park* in this sentence: “People like to spend time playing and relaxing in this *park*.”
2. With your partner, think of different meanings of or ways you can use the word *park* as you can.
3. [Show Poster 1M (Park).] In the read-aloud, a park is a place in or near a city that has trees, grass, and flowers for people to enjoy. Which picture shows this meaning of *park*?
4. *Park* also means to leave a car in a particular place, such as a parking space. Which picture shows this meaning of *park*?
5. Did you or your partner think of either of these definitions?
6. With your partner, make up a sentence for each meaning of *park*. I will call on some of you to share your sentences. [Call on a few partner pairs to share one or all of their sentences. Have them point to the part of the poster that relates to their use of *park*.]

Conjunction *and*

Note: 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. There may be variations in the sentences created by your class. Allow for these variations, and restate students' sentences so that they are grammatical. If necessary, have students repeat the sentence after you.

1. Conjunctions are a kind of word we use to connect words and phrases.
2. We use the conjunction ***and*** to join words and phrases that go together.
Listen to Rattenborough's sentences about his habitat. I will emphasize the conjunction ***and*** as I read:
*Take a look around. What do you see? There are trash cans ***and*** boxes; drains ***and*** dripping pipes; old buildings ***and*** gutters. It's a perfect home for a rat.*
3. Notice that in this sentence, Rattenborough uses the conjunction ***and*** when he describes different things about his habitat.
4. The conjunction ***and*** is used to join words and phrases that go together. Let's listen to another sentence.
*Our school has a cafeteria ***and*** a gym.*
5. Now you try joining two words or phrases together using ***and***.
 - Tell your partner two things about your home.
 - Tell your partner two things about our school's playground.

↔ Vocabulary Instructional Activity

5 minutes

Word Work: Survive

1. In the read-aloud you heard, “All living things need food and water to *survive*.”
2. Say the word *survive* with me three times.
3. To *survive* means to continue to live.
4. Humans need food and water to survive.
5. Can you think of something else humans need to survive? [Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “Humans need _____ to survive.”]
6. What’s the word we’ve been talking about?

Use a *Synonyms and Antonyms* activity for follow-up. Directions: What are some words that are similar to the word *survive*? (Answers may vary, but may include *live, exist, last, remain, live through, tough it out, make it, etc.*)

What are some words that are opposite of *survive*? (Answers may vary, but may include *die, leave, stop, give up, depart, not make it, etc.*)

Safari

20+ minutes

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 do you think would find this area to be a

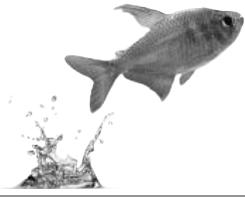
good habitat? What are some problems with this area that may not make it a good habitat for animals?

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-2-4.



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 fit a special situation or environment

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. Not covered; left unprotected

Example: Skin that is exposed to too much sunlight might get sunburned.

Variation(s): expose, exposes, exposing

tundra, n. A treeless area of the Arctic

Example: Plants in the tundra do not grow very tall, because it is very cold there.

Variations: none

Vocabulary Chart for Animals of the Arctic Habitat			
Core Vocabulary words are in bold . Multiple Meaning Word Activity word is <u>underlined</u> . Vocabulary Instructional Activity words have an asterisk (*). Suggested words to pre-teach are in <i>italics</i> .			
Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	Arctic blubber caribou flippers habitat hare hooves mosses musk ox terrain tundra walruses wolverine	adapted* exposed frigid temperature	animal coldest fox frozen fur grasses ice ocean summer/winter wind
Multiple Meaning	burrow herd seals sheds	layer	bear coat feet freeze hide plant snow warm water
Phrases	<i>Arctic Ocean</i> <i>Arctic tundra</i> polar bear	harsh conditions incredibly strong	
Cognates	ártico caribou hábitat musgos terreno tundra <i>Tundra ártica</i> <i>el Océano Glacial</i> <i>Ártico</i>	adaptarse* expuesto frígido temperatura	animal océano planta

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud (10 minutes)		
What Have We Already Learned?	Images 1A-4 and 1A-5	Have students talk about a park habitat and the plants and animals that live in a park. Emphasize that a habitat provides food, water, and shelter.
Where Are We?	Image Card 3 (Arctic Fox), yarn, world map	You may wish to connect Image Card 3 to the Arctic area on a world map (North and South Poles).
Vocabulary Preview: Arctic tundra, Arctic Ocean	Image 2A-2; additional images of the Arctic tundra	
	Image 2A-9; additional images of the Arctic Ocean; world map	
Purpose for Listening	chart paper to make a Know-Wonder-Learn (KWL) Chart	You may wish to create a KWL Chart for the Arctic habitat. Ask students what they know and wonder about the Arctic. At the end of the lesson or on the following day, have students share what they learned about the Arctic.
Presenting the Read-Aloud (15 minutes)		
Animals of the Arctic Habitat		You may wish to pause after Image 2A-8 and review the Arctic tundra before telling about the Arctic Ocean.
		You may wish to conclude the read-aloud with a short video clip of the Arctic habitat.
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions		You may wish to fill in the Learned column of the KWL Chart for the Arctic.
Word Work: Adapted	Image Cards 1–3; Image 2A-10	Review how each Arctic animal has adapted to the Arctic habitat.
 Complete Remainder of the Lesson Later in the Day		

Exercise	Materials	Details
Extensions (20 minutes)		
Habitat Chart	Instructional Master 2B-1; chart paper	
Habitat Journal: The Arctic Habitat	Instructional Master 2B-2, drawing tools	
Domain-Related Trade Book	trade book about the Arctic habitat; drawing paper, drawing tools	

Advance Preparation

Bring in additional images of the Arctic tundra and Arctic Ocean; find an age-appropriate short video about the Arctic habitat to show to the class.

Create a large Habitat Chart, using Instructional Master 2B-1 as a guide.

 **Above and Beyond:** Make a copy of Instructional Master 2B-1 for students who are ready to fill in this chart on their own.

Make a copy of Instructional Master 2B-2 for each student. This will be the Arctic habitat page in their Habitat Journal.

Find a trade book about the Arctic habitat to read aloud to the class.



Animals of the Arctic Habitat

2_A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

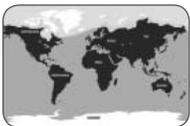
Introducing the Read-Aloud

10 minutes

What Have We Already Learned?

5 minutes

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?

5 minutes

← **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.

Vocabulary Preview

5 minutes

Arctic tundra

← **Show image 2A-2: Rattenborough in Arctic**

1. In today's lesson you will hear about a habitat called the *Arctic tundra*.
2. Say *Arctic tundra* with me three times.



3. The Arctic tundra is a large, flat area of land where the ground is always frozen and icy. There are no trees in the tundra.
4. The ground of the Arctic tundra is always frozen.
5. [Show additional images of the Arctic tundra.] Point to the frozen ground in this image. What do you think the weather is like in the tundra? Do you think the tundra is a good habitat for humans? Why or why not?



Arctic Ocean

← **Show image 2A-9: Rattenborough in the seascape**

1. In today's lesson you will also hear about another habitat called the *Arctic Ocean*.
2. Say *Arctic Ocean* with me three times.
3. The Arctic Ocean is an ocean around the North Pole. [Point to the Arctic Ocean on a world map.]
4. The water in the Arctic Ocean is so cold that only certain animals can survive in this habitat.
5. [Show additional images of the Arctic Ocean.] With your partner, think of some animals that might live in or near 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.



Animals of the Arctic Habitat

← Show image 2A-2: Rattenborough in Arctic

1 What do you see in this image?

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

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

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

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

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 hooves³ 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



← **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.

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



← **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.



← **Show image 2A-7: Arctic fox⁵**

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!

5 What do you see in this picture?



← **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!

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 frigid¹⁰ 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. *Literal* 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. *Literal* 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. *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)
4. *Inferential* How have seals adapted to keep warm? (They have fur coats and a layer of blubber beneath their skin.)

5. *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.)
6. *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)
7. *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.)

[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: Adapted

10 minutes

1. In today’s read-aloud you heard, “The animals that call the Arctic tundra habitat home have *adapted* to the harsh [and cold] conditions.”
2. Say the word *adapted* with me.
3. *Adapted* means changed or adjusted to a certain condition to be able to survive in that environment.
4. The animals in the Arctic habitat have adapted to living in very cold weather.

5. [Show Image Cards 1 (Arctic Hare), 2 (Caribou), and 3 (Arctic Fox).] In today's lesson you heard about these animals which have adapted to their Arctic habitat. Tell me some of the ways each animal has adapted to the Arctic habitat. Be sure to use the word *adapted* in your answer.

[Ask two or three students. If necessary, guide and/or rephrase students' responses: "The _____ has adapted to the Arctic habitat because . . ."]

- Arctic hare: [Hint: look at the color of its fur; the size of its ears.] The Arctic hare has adapted to the Arctic because it has white fur, so it blends in with the snow; its fur gets thicker in the winter, so it can stay warm; and its ears are smaller, so less of its body is exposed to the cold.
- Caribou: [Hint: look at the number of Caribou; look at their fur; look at the male's antlers.] Caribou have adapted to the Arctic habitat because they travel in herds, so they are protected from attack by other animals; they have hair that traps air, so they are kept warm; male caribou have antlers, so they can dig for grass in the snow.
- Arctic fox: [Hint: look at the color of its fur; look at what is on its feet.] The Arctic fox has adapted to the Arctic habitat because it has white fur in the winter, so it blends in with the snow; it has brown fur in the summer, so it blends in with its surroundings in the summer; it has fur on its feet, so it can walk on snow and ice.

6. What's the word we've been talking about?

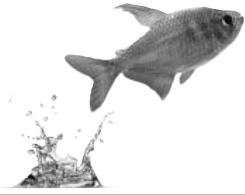


← **Show image 2A-10: Walruses**

Use a *Discussion* activity for follow-up. Directions: Tell your partner some ways walruses have adapted to the Arctic habitat. (Walruses have adapted to the Arctic habitat by storing blubber, or fat, under its skin, so they stay warm; they have tusks, or long teeth, so they can pull themselves up out of the water and onto the ice.)



Complete Remainder of the Lesson Later in the Day



Animals of the Arctic Habitat

2_B

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

20 minutes

Habitat Chart (Instructional Master 2B-1)

10 minutes

Note: Remind students that they are not expected to read all of the words on the chart because they are still learning 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 information on the chart to them.

Introduce the Habitat Chart to students. Point to the column for the Arctic habitat. You may wish to have the class think of a symbol for the Arctic habitat and draw it at the top of the column. Tell students that you will fill in this chart with information they have learned about the Arctic habitat.

Read the items for the rows: *Climate*, *Water*, *Ground*, *Plants*, and *Animals*. Have students tell you about each of these features for the Arctic habitat. A completed chart may look like the following:

	Arctic	Desert	Savanna	Forest	Rainforest
Climate	cold and windy				
Water	a lot of water and salt water				
Ground	frozen, covered in ice				
Plants	grasses, mosses				
Animals	muskox, wolverine, caribou, Arctic fox, Arctic hare, walrus, seal, polar bear				

Habitat Journal: The Arctic Habitat (Instructional Master 2B-2)

20 minutes

- Tell students that they will create a Habitat Journal in which they will draw and write about the habitats in this domain. Today they will draw an Arctic habitat. [You may wish to review Flip Book images and additional images related to the Arctic habitat before having students begin this activity.]
- Give each student Instructional Master 2B-2. Discuss what they have learned about the Arctic habitat. To help students brainstorm ideas for their drawings, you may wish to ask questions such as the following:
 1. What kind of plants will be in your drawing: tall plants or short plants?
 2. What kind of animals will be in your drawing? What color fur will some of them have?
 3. Will there be water in your drawing?

- After students have finished their drawings, ask them to write one sentence to describe their drawings of an Arctic habitat, using their sound/letter knowledge to sound out and write out their sentences.
- Have students share their journal page in small groups or with home-language peers.

Domain-Related Trade Book

20 minutes

- Refer to the list of recommended trade books in the Introduction at the front of this *Supplemental Guide*, and choose one trade book about the Arctic habitat to read aloud to the class.
- Explain to students that the person who wrote the book is called the author. Tell students the name of the author. Explain to students that the person who makes the pictures for the book is called an illustrator. Tell students the name of the illustrator. Show students where they can find this information on the cover of the book or on the title page.
- As you read, use the same strategies that you have been using when reading the read-aloud selections—pause and ask occasional questions; rapidly clarify critical vocabulary within the context of the read-aloud; etc.
- After you finish reading the trade book aloud, lead students in a discussion as to how the story or information in this book relates to the read-alouds in this domain.
- Provide students with drawing paper, drawing tools, and writing tools. Have students draw one detail they remember from the trade book. Students may also draw one new thing that they learned from the trade book that they did not know before. Ask students to label their pictures or write a sentence to go along with their drawings. Have students share their drawings and writing with their partner or with home-language peers.



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 surroundings

Example: The green color of grasshoppers helps to camouflage them, or hide them, in the field.

Variation(s): camouflages, camouflaged, camouflaging

carnivore, n. An animal that only eats 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. Awake and 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 squirrel is an omnivore that eats both plants and insects.

Variation(s): omnivores

scavengers, n. Animals that eat meat and waste left by other animals

Example: Rats are scavengers; they go to the alleyway to look for food.

Variation(s): scavenger

Vocabulary Chart for Animals of the Sonoran Desert Habitat

Core Vocabulary words are in **bold**.
 Multiple Meaning Word Activity word is underlined.
 Vocabulary Instructional Activity words have an asterisk (*).
 Suggested words to pre-teach are in *italics*.

Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	cactus/cacti camouflage* carnivore/ herbivores/ omnivore* coyote habitat nocturnal scavengers	adapted	animal berries bird <i>desert</i> eat fruit insects owl rabbit
Multiple Meaning	shelter	cycle <u>fan</u>	dry flowers hot plant rain water
Phrases	elf owl food chain desert cottontail Gila woodpecker saguaro cactus <i>Sonoran Desert</i>		
Cognates	cacto camuflaje* carnívoro/ herbívoro/ omnívora* coyote hábitat nocturno(a) <i>El desierto de</i> <i>Sonoran</i>	adaptarse ciclo	animal <i>desierto</i> fruto insecto flores planta

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud (10 minutes)		
What Have We Already Learned?	KWL Chart for the Arctic Habitat; Habitat Chart	You may wish to use either of these graphic organizers to review content from Lesson 2.
Making Predictions About the Read-Aloud	chart paper to create Venn diagram; Instructional Master 3A-1	You may wish to begin a Venn diagram to compare and contrast the Arctic habitat and the desert habitat.
Where Are We?	Image Card 4 (Saguaro Cactus) , yarn, world map	You may wish to connect Image Card 4 to the Sonoran Desert area on a world map (northwestern Mexico, southwestern U.S.).
Vocabulary Preview: Sonoran Desert	Image 3A-4; additional images of the Sonoran Desert; U.S. map	
Purpose for Listening	chart paper to make a Know-Wonder-Learn (KWL) Chart	You may wish to create a KWL Chart for the desert habitat. Ask students what they know and wonder about the desert. At the end of the lesson or on the following day, have students share what they learned about the desert.
Presenting the Read-Aloud (15 minutes)		
Animals of the Sonoran Desert Habitat		You may wish to conclude the read-aloud with a short video clip of the Sonoran Desert habitat.
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions	Venn diagram	You may wish to continue filling in the Venn diagram to answer question #5.
		You may wish to fill in the Learn column of the KWL Chart for the desert.
Word Work: Camouflage	Image Card 1; Images 3A-10 and 3A-11	Show these images as examples of camouflage.
 Complete Remainder of the Lesson Later in the Day		

Exercise	Materials	Details
Extensions (20 minutes)		
Multiple Meaning Word Activity: Fan	Poster 2M (Fan)	
Syntactic Awareness Activity: Making a List Using the Conjunction <i>and</i>	Images 3A-7 and 3A-8; Large display with space for three words, the conjunction <i>and</i> , separated by two commas. _____, _____, and _____	
Vocabulary Instructional Activity: Herbivore, Carnivore, Omnivore	Instructional Masters 3B-1 and 3B-2	
Habitat Chart	Habitat Chart	
Habitat Journal: The Desert Habitat	Instructional Master 3B-3, drawing tools	

Advance Preparation

Bring in additional images of the Sonoran Desert; find an age-appropriate, short video about the Sonoran Desert to show to the class.

Create a Venn diagram to compare and contrast the Arctic habitat and the desert habitat, using Instructional Master 3A-1 as a guide. Students should be able to provide information about the Arctic habitat. At the end of the lesson, students should be able to provide information for the desert habitat and for the overlapping circles.

✈ Above and Beyond: Make a copy of Instructional Master 3A-1 for students who are ready to fill in this diagram on their own.

For the Syntactic Awareness Activity, create a large display with space for three words, separated by two commas and the conjunction *and*. The display should look like the following:

_____, _____, and _____

Make copies of Instructional Masters 3B-1 and 3B-2 for each student. They will use these worksheets for the Vocabulary Instructional Activity.

Make a copy of Instructional Master 3B-3 for each student. This will be the desert habitat page in their Habitat Journals.



Animals of the Sonoran Desert Habitat

3A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Introducing the Read-Aloud

10 minutes

What Have We Already Learned?

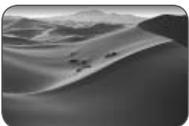
5 minutes

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

5 minutes

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?

5 minutes

- ← **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.

Vocabulary Preview

5 minutes

Sonoran (suh-NOR-un) Desert



- ← **Show image 3A-4: The Sonoran Desert**

1. In today's lesson you will hear about a habitat called the *Sonoran Desert*.
2. Say *Sonoran Desert* with me three times.
3. The Sonoran Desert is a desert in the southwestern part of the United States. [Point to the southern part of California and Arizona on a U.S. map.]
The temperature in the desert is hot. It does not rain much in the desert.
4. The Sonoran Desert is home to the saguaro cactus. [Invite students to point to the cacti.]
Animals that live in the Sonoran Desert must adapt to live in hot weather and survive with very little rain.
5. [Show additional images of the Sonoran Desert.] Describe the Sonoran Desert to your partner. What do you think the

weather is like in the desert? Do you think the desert is a good habitat for humans? Why or why not?

Purpose for Listening

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



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?

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



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



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.

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!

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.

← **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 fan with me.⁴ Interestingly enough, birds like

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.

The elf owl is 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!

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



← **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

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.

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)



← **Show image 3A-11: Coyote**

- 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.

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!

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. *Literal* Describe the weather and temperature of the Sonoran Desert. (dry, hot, not much rain)
3. *Literal* 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

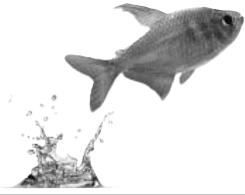
1. In the read-aloud you heard, “[T]he coyote has a light, tan-colored coat to... *camouflage* it.”
2. Say the word *camouflage* with me.
3. To *camouflage* something means to hide it against its natural surroundings or background. Often the color of the object or animal is similar to the background, 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 grasshopper (I could camouflage that by placing it in the grass.)



Complete Remainder of the Lesson Later in the Day



Animals of the Sonoran Desert Habitat

3_B

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

20 minutes

↔ Multiple Meaning Word Activity

5 minutes

Associated Phrase: Fan

Note: You may choose to have students hold up one or two fingers to indicate which image shows the meaning being described, or have a student walk up to the poster and point to the image being described.

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.” Which picture shows a fan that helps keep the temperature cool?
2. *Fan* can also mean something else. *Fan* also means a person who likes or admires someone or something, such as a musician or a sports team. Which picture shows fans cheering at a game?
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*. (When I see this kind of *fan*, I think of cheering, football, team, music, etc.)
4. [Point to the fan that is a machine used to make things cooler.] With your partner, talk about what you think of when you see this kind of *fan*. (When I see this kind of *fan*, I think of summer, hot air, wind, etc.)

↔ Syntactic Awareness Activity

5 minutes

Making a List Using the Conjunction and

Note: 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. There may be variations in the sentences created by your class. Allow for these variations, and restate students' sentences so that they are grammatical. If necessary, have students repeat the sentence after you.

1. Conjunctions are a kind of word we use to connect words and phrases.
2. We use the conjunction **and** to join words and phrases that go together. Today we will use the conjunction **and** to make a list.



← Show image 3A-7: Cactus bloom

Listen to Rattenborough's sentence about the cactus bloom. I will emphasize the conjunction **and** as I read:

*At night, when the desert cools down, these flowers open for butterflies, bats, **and** birds to feed on before the flowers close the next day when it once again becomes very hot.*

3. [Write *butterflies, bats, and birds* on the display, and read it to the class.] Notice that in this sentence, Rattenborough uses the conjunction **and** when he lists the kinds of animals that feed on the cactus flower's nectar.
4. The conjunction **and** is used to join the last item on a list. Let's listen to another sentence. [Write *dry, hot, and sandy* on the display, and read it to the class.]
The desert is dry, hot, and sandy.
5. Now you try making a list using **and** to join the last item in the list.
 - Tell your partner three or more things about the Arctic habitat.



← **Show image 3A-8: Gila woodpecker**

- Tell your partner three things that can be found on the saguaro cactus. (flowers, spines, Gila woodpeckers, insects)

↔ **Vocabulary Instructional Activity**
(Instructional Masters 3B-1 and 3B-2)

15 minutes

Word Chart: Herbivore, Carnivore, Omnivore

- 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 Instructional Master 3B-1. 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 such as rats. Is the wolverine a carnivore, herbivore, or omnivore?
[Note: You may wish to have students write the letter 'C' on the image to remind them that a wolverine is a carnivore.]
 2. [Point to the image on the top right.] This is a caribou. It eats grasses, which are a type of plant. Is the caribou a carnivore, herbivore, or omnivore?
[Note: You may wish to have students write the letter 'H' on the image to remind them that a caribou is a herbivore.]
 3. [Point to the image in the second row on the left.] This is a desert cottontail rabbit. It eats plants such as grasses and cacti. Is the desert cottontail rabbit 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 cactus fruit and berries as well as insects. Is the Gila woodpecker a carnivore, herbivore, or omnivore?
[Note: You may wish to have students write the letter 'O' on

the image to remind them that the Gila woodpecker is an omnivore.]

6. [Point to the image in the third row on the right.] This is a squirrel. It eats plants such as acorns as well as insects. 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 images in the correct category on Instructional Master 3B-2.
 - Talk with students about which animals they have in each category on the chart. 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.”

Habitat Chart

Note: Remind students that they are not expected to read all the words on the chart because they are still learning 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 information on the chart to them.

Briefly review information that is on the chart already. Remind students that each column is about a different habitat. Point to the column for the desert habitat. You may wish to have the class think of a symbol for the desert habitat and draw it at the top of the column. Tell students that you will fill in this chart with information they have learned about the desert habitat.

Read the items for the rows: *Climate*, *Water*, *Ground*, *Plants*, and *Animals*. Have students tell you about each of these features for the desert habitat. A completed chart may look like the following:

	Arctic	Desert	Savanna	Forest	Rainforest
Climate	cold and windy	hot and dry			
Water	a lot of water and salt water	not much rain			
Ground	frozen, covered in ice	sand			
Plants	grasses, mosses	cacti			
Animals	muskox, wolverine, caribou, Arctic fox, Arctic hare, walrus, seal, polar bear	Gila woodpecker, elf owl, desert cottontail, coyotes			

Habitat Journal: The Desert Habitat (Instructional Master 3B-3)

20 minutes

- Tell students that they will make another page for their Habitat Journal. Today they will draw a desert habitat. [You may wish to review Flip Book images and additional images related to the desert habitat before having students begin this activity.]
- Give each student Instructional Master 3B-3. Discuss what they have learned about the desert habitat. To help students brainstorm ideas for their drawings, you may wish to ask questions such as the following:
 1. What kind of plant will be in your drawing? Will there be many plants or just a few plants?
 2. What kind of animals will be in your drawing? What color fur will some of them have?
 3. Will there be water in your drawing?
- After students have finished their drawings, ask them to write one sentence to describe their drawings of a desert habitat, using their sound/letter knowledge to sound out and write out their sentences.

- Have students share their journal page in small groups or with home-language peers.



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 the 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 walrus and the seal were able to coexist in the arctic habitat.

Variation(s): coexists, coexisted, coexisting

hardy, adj. Able to survive in bad 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

Vocabulary Chart for Animals of the East African Savanna Habitat

Core Vocabulary words are in **bold**.

Multiple Meaning Word Activity word is underlined.

Vocabulary Instructional Activity words have an asterisk (*).

Suggested words to pre-teach are in *italics*.

Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	antelope <i>grassland/savanna</i> habitat herbivore/ carnivore/ omnivore gazelles oxpecker predator/prey* vultures	adapted coexist freezing/scorching hardy plenty survive	animal bird elephant giraffe grass lion rainy/dry summer/winter zebra
Multiple Meaning	branch roots soil	pour prides	hot leaves leg plant trunk
Phrases	acacia tree African savanna food chain prickly thorns		grows back
Cognates	Antelope <i>Sabana</i> hábitat herbívoro/ carnívoro/ omnivore gacela depredador/ presa* Sabana africana	adaptarse coexistir sobrevivir	animal elefante jirafa león cebra planta

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud (10 minutes)		
What Have We Already Learned?	Habitat Chart; Venn Diagram (Arctic vs. Desert)	You may wish to use either of these graphic organizers to review content from Lessons 2 and 3.
Where Are We?	Image Card 8 (Acacia Tree), yarn, world map	You may wish to connect Image Card 8 to the East African Savanna area on a world map (east Africa).
Vocabulary Preview: Savanna/Grassland	Image 4A-4; additional images of the savanna	
Purpose for Listening	chart paper to make a Know-Wonder-Learn (KWL) Chart	You may wish to create a KWL Chart for the savanna habitat. Ask students what they know and wonder about the savanna. At the end of the lesson or on the following day, have students share what they learned about the savanna.
Presenting the Read-Aloud (15 minutes)		
Animals of the East African Savanna Habitat		You may wish to conclude the read-aloud with a short video clip of the savanna habitat.
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions	Habitat Chart	Refer to the Habitat Chart for the questions that refer to habitats from previous lessons.
		You may wish to fill in the Learn column of the KWL Chart for the savanna.
Word Work: Predators/Prey	Images 2A-7 (Fox) and 2A-8 (Hare); Images 2A-12 (Polar Bear) and 2A-11 (Seals); Images 3A-11 (Coyote) and 3A-10 (Rabbit); Images 4A-13 (Lions) and 4A-11 (Zebra)	Show these sets of images as examples of predators and prey.
 Complete Remainder of the Lesson Later in the Day		

Exercise	Materials	Details
Extensions (20 minutes)		
Food Chain Game	Savanna—Image 4A-15; Image Cards 8, 10, and 11; Instructional Master 4B-1 Arctic—Image Cards 1 and 3; Instructional Master 4B-2 Desert—Image Cards 4, 6, and 7; Instructional Master 4B-3	There is a Food Chain worksheet for the savanna, arctic, and desert habitats. You may wish to complete the worksheet for the savanna habitat for this lesson and complete the other two during the Pausing Point and Domain Review.
Habitat Chart	Habitat Chart	
Habitat Journal: The Savannah Habitat	Instructional Master 4B-4, drawing tools	
Habitat Review	Image Cards 1–11; Habitat Posters 1–3; Instructional Master 4B-5 (Rattenborough cutout)	Invite students to put their Rattenborough cutout on the correct Habitat Poster.
Domain-Related Trade Book	trade book about the desert or the savanna habitat; drawing paper, drawing tools	

Advance Preparation

Bring in additional images of the savanna or grassland habitat; find an age-appropriate short video about the savanna habitat (or tropical savanna or savanna biome) to show to the class.

Make copies of Instructional Masters 4B-1, 4B-2, and 4B-3 for each student. They will use these worksheets for the Food Chain Game.

Make a copy of Instructional Master 4B-4 for each student. This will be the savanna habitat page in their Habitat Journal.

Make copies of Instructional Master 4B-5 so that each student has a Rattenborough cutout. Have students color and write their name on Rattenborough. Then have students cut him out. Students will use their Rattenborough cutout to answer questions during the Habitat Review activities.

Find a trade book about the desert or the savanna to read aloud to the class.



Animals of the East African Savanna Habitat

4A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Introducing the Read-Aloud

10 minutes

What Have We Already Learned?

5 minutes

Use the Habitat Chart as the basis for a conversation with students in describing the various habitats they have learned so far. In particular, you may wish to compare and contrast the arctic and desert habitats.

Where Are We?

5 minutes

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.



Savanna/Grassland

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

1. In today's lesson you will hear about a habitat called the *savanna* or *grassland*.
2. Say *savanna* with me three times.
Say *grassland* with me three times.
3. Look at this image, and tell your partner what you think the word *grassland* means. [Hint: The answer is in the word.]
Grassland is land that is covered in wild grass. [You may wish to distinguish grassland from a soccer field or grass field at school. The wild grasses of the grassland were not planted but were there already. The area of grassland is much larger and vast than a soccer field.]
Savanna is another name for grassland. A savanna is a wide-open, vast stretch of grass-covered land that does not have many bushes or trees.
4. The African savanna or grassland is a habitat for some of the most famous animals. Can you guess which ones? (giraffe, zebra, elephant, and lion)
5. [Show additional images of the savanna.] Describe the savanna to your partner. What plants do you see? Which animals can you name?

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.



1 or fearless

Animals of the East African Savanna Habitat

← Show image 4A-2: Rattenborough in savanna

Rattenborough, your intrepid¹ 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.



2 What do you see in this image?

← Show image 4A-3: African savanna²

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.

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**

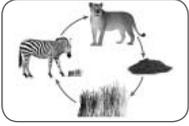
These animals are lions. Lions live in groups called prides. The females, or lionesses, do most of the hunting. They are carnivores that hunt zebras, elephants, and all kinds of other savanna animals. Most groups of lions have just one or two male lions. The male lion is huge and incredibly strong. It 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? [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. *Evaluative* How is the savanna the same and/or different from 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.)
4. *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 help 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.)
5. *Inferential* How would you categorize the following animals: giraffes, elephants, and zebras? (herbivores)



← **Show image 4A-11: Zebra**

6. *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**

7. *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**

8. *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**

9. *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.

10. *Evaluative Think Pair Share:* Would you want to live in the savanna? Why or why not? (Answers may vary.)
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: Predators/Prey

5 minutes

1. In the read-aloud you heard that, “[Giraffes] have long, powerful legs so that they can quickly run away from *predators*.” Giraffes are *prey* for lions.
2. Say the word *predators* with me.
Say the word *prey* with me.
3. Predators are animals that hunt and eat other animals.
Prey are animals that are hunted and eaten by other animals.
4. In today’s read-aloud, lions are predators and giraffes are prey. Lions are predators because they hunt and eat other animals. Giraffes are prey because they are hunted and eaten by other animals.



← Show image 4A-13: Lions



← Show image 4A-11: Zebra

5. Here are two animals that live in the savanna. Which animal is the predator and which animal is the prey?
[Ask two or three students. If necessary guide and/or rephrase students’ answers, “The _____ is the predator. The _____ is the prey.”]
6. What are the words we’ve been talking about?

Use a *Making Choices* activity for follow-up. Directions: I will show you pictures of two animals. One animal is the predator and one animal is the prey. With your partner, decide which animal is the predator and which animal is the prey.

- Images 2A-7 (Fox) and 2A-8 (Hare)
- Images 2A-11 (Seals) and 2A-12 (Polar Bear)
- Images 3A-10 (Rabbit) and 3A-11 (Coyote)



Complete Remainder of the Lesson Later in the Day



Animals of the East African Savanna Habitat

4B

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

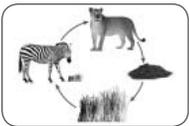
20 minutes

Food Chain Game

(Instructional Masters 4B-1, 4B-2, and 4B-3)

15 minutes

Note: You may wish to complete Instructional Master 4B-1 at this time and save the other two worksheets for the Pausing Point and Domain Review.



◀ Show image 4A-15: Food chain

- 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. Explain the order of the food chain: the grass is eaten by the zebra, and the zebra is eaten by the lion. Point out that the next picture on the Flip Book image is a picture of soil. Explain that when animals, like the lion, die, their bodies become part of the soil. Then grass and plants grow out from the soil and the food chain starts all over again.
- Invite two or three volunteers to use the Image Cards and Flip Book image to tell about the food chain in the savanna.
- Give students Instructional Master 4B-1. Have them cut out the images at the bottom and place them in the correct order on the food chain diagram.
- Have students explain the food chain to their partner or to their home-language peers.

Extending the Activity

- Once students have created the food chain, have them cover up one of the images and discuss what they think will happen to the rest of the plants and animals in the food chain. Will all of them die? 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?

[For Instructional Master 4B-2 (Arctic Food Chain), you may wish to use Image Cards 1 and 3. For Instructional Master 4B-3 (Desert Food Chain), you may wish to use Image Cards 4, 6, and 7.]

Habitat Chart

Note: Remind students that they are not expected to read all the words on the chart because they are still learning 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 information on the chart to them.

Briefly review information that is on the chart already. Remind students that each column is about a different habitat. Point to the column for the savanna habitat. You may wish to have the class think of a symbol for the savanna habitat and draw it at the top of the column. Tell students that you will fill in this chart with information they have learned about the savanna habitat.

Read the items for the rows: *Climate*, *Water*, *Ground*, *Plants*, and *Animals*. Have students tell you about each of these features for the savanna habitat. A completed chart may look like the following:

	Arctic	Desert	Savanna	Forest	Rainforest
Climate	cold and windy	hot and dry	warm, rainy summer; dry winter		
Water	a lot of water and salt water	not much rain	rain in the summer		
Ground	frozen, covered in ice	sand	grass		
Plants	grasses, mosses	cacti	grasses, acacia trees		
Animals	muskox, wolverine, caribou, Arctic fox, Arctic hare, walrus, seal, polar bear	Gila woodpecker, elf owl, desert cottontail, coyotes	zebra, giraffe, elephant, oxpecker, lion, vulture		

Habitat Journal: The Savanna Habitat (Instructional Master 4B-4)

20 minutes

- Tell students that they will make another page for their Habitat Journal. Today they will draw a savanna habitat. [You may wish to review Flip Book images and additional images related to the savanna habitat before having students begin this activity.]
- Give each student Instructional Master 4B-4. Discuss what they have learned about the savanna habitat. To help students brainstorm ideas for their drawing, you may wish to ask questions such as the following:
 1. What kind of plants will be in your drawing? Will there be a lot of grass?
 2. Will there be a special kind of tree?
 3. What kinds of animals will be in your drawing?
- After students have finished their drawings, ask them to write one sentence to describe their drawings of a savanna habitat, using their sound/letter knowledge to sound out and write their sentences.

- Have students share their journal pages in small groups or with home-language peers.

Habitat Review

15 minutes

- Display Habitat Posters 1–3 at the front of the class. Name each habitat with the students.
- Tell students that you will hold up an Image Card of a plant or animal and that they need to help the plant or animal find its home, or habitat. Have students identify the plant or animal on the Image Card. Then put the Image Card next to a Habitat Poster and ask, “Does _____ belong in the _____ habitat? Hold up Rattenborough for yes or keep Rattenborough on your lap for *no*.”
- Alternatively, you can place the Habitat Posters in different locations around the room. Pass out Image Cards 1–11 to students—either one card per student or one card per pair of students, depending upon the number of students in your class. Tell students to stand next to the Habitat Poster that depicts the habitat of the plant or animal card that s/he is holding. Finally, invite the students standing next to each Habitat Poster to present the plants and animals that live in that habitat.

Domain-Related Trade Book

20 minutes

- Refer to the list of recommended trade books in the Introduction at the front of this *Supplemental Guide*, and choose one trade book about the desert habitat or savanna habitat to read aloud to the class.
- Explain to students that the person who wrote the book is called the author. Tell students the name of the author. Explain to students that the person who makes the pictures for the book is called an illustrator. Tell students the name of the illustrator. Show students where they can find this information on the cover of the book or on the title page.
- As you read, use the same strategies that you have been using when reading the read-aloud selections—pause and ask occasional questions; rapidly clarify critical vocabulary within the context of the read-aloud; etc.

- After you finish reading the trade book aloud, lead students in a discussion as to how the story or information in this book relates to the read-alouds in this domain.
- Provide students with drawing paper, drawing tools and writing tools. Have students draw one detail they remember from the trade book. Students may also draw one new thing that they learned from the trade book that they did not know before. Ask students to label their pictures or write a sentence to go along with their drawings. Have students share their drawings and writing with their partner or with home-language peers.



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. What the weather is like in an area

Example: The climate in the desert is very dry and hot.

Variation(s): climates

hibernate, v. To sleep for a long time during the winter season

Example: Black bears go into their caves and hibernate in the winter.

Variation(s): hibernates, hibernated, hibernating

species, n. A group of animals or plants that are alike and have similar characteristics or features

Example: There can be many species of the same kind of animal; for example, there are about seventy species of whales.

Variation(s): none

store, v. To save and put something away to be used later

Example: Squirrels store acorns in their nest to prepare for the winter.

Variation(s): stores, stored, storing

temperate, adj. Not extremely hot or cold; a “middle” temperature

Example: Many places in the United States have a temperate climate.

Variation(s): none

territory, n. A space or an area that an animal thinks is its own and will not allow others to enter into

Example: My dog protects its territory by barking at other dogs that come near it.

Variation(s): territories

Vocabulary Chart for Animals of the Temperate Deciduous Forest Habitat

Core Vocabulary words are in **bold**.
 Multiple Meaning Word Activity word is underlined.
 Vocabulary Instructional Activity words have an asterisk (*).
 Suggested words to pre-teach are in *italics*.

Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	climate* deciduous habitat hibernate* mosses omnivore/ carnivore sapling shrubs species	adapted tasty territory thrilling	acorn deer forest grass insect owl squirrel sunlight tree winter
Multiple Meaning	buck season shelter <i>temperate</i>	covered store support	<u>bark</u> bears leaves park
Phrases	broadleaf trees <i>deciduous forest</i> oak/maple/beech/ elm tree Smoky Mountains	mark their territory steady rate	all around you four seasons too cold/too hot
Cognates	clima* hábitat hibernar* musgo omnivore/ carnívoro especie	adaptarse territorio	insecto parque

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud (10 minutes)		
What Do We Know?	chart paper to make a Know-Wonder-Learn (KWL) Chart	You may wish to create a KWL Chart for the forest habitat. Ask students what they know and wonder about the forest. At the end of the lesson or on the following day, have students share what they learned about the forest.
Where Are We?	Image Card 12 (Deciduous Forest), yarn, world map	You may wish to connect Image Card 12 to a deciduous forest area on a world map (e.g., the Great Smoky Mountains between Tennessee and North Carolina).
Vocabulary Preview: Temperate, Deciduous Forest	Images of the four seasons	
	Image 5A-2; additional images of a deciduous forest and animals of the deciduous forest	
Purpose for Listening		
Presenting the Read-Aloud (15 minutes)		
Animals of the Temperate Deciduous Forest Habitat		You may wish to pause after Image 5A-9 and review the different plants found in a forest before continuing on to Image 5A-10 and telling about the animals found in a forest.
		You may wish to conclude the read-aloud with a short video clip of a deciduous forest habitat.
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions	Habitat Chart	Refer to the Habitat Chart to answer Question #4.

Exercise	Materials	Details
Word Work: Climate	Image 5A-3 (Forest); Image 2A-2 (Arctic); Image 3A-3 (Desert); Image 4A-2 (Savanna); picture of a local park or school	Show these images as students talk about the climate of each habitat.
 Complete Remainder of the Lesson Later in the Day		
Extensions (20 minutes)		
Multiple Meaning Word Activity: Bark	Poster 3M (Bark)	
Syntactic Awareness Activity: Conjunction or		
Vocabulary Instructional Activity: Hibernate	images of hibernators (e.g., brown bears, bats, squirrels, groundhogs, etc.)	
Habitat Chart	Habitat Chart	
Habitat Journal: The Forest Habitat	Instructional Master 5B-1, drawing tools	
Habitat Review	Image Cards 1–15; Habitat Posters 1–4; Rattenborough cutout	Invite students to put their Rattenborough cutout on the correct Habitat Poster.

Advance Preparation

Bring in additional images of a deciduous forest habitat and animals of the deciduous forest; images showing the four seasons; picture of a local park or school; and images of hibernators (e.g., brown bears, bats, squirrels, groundhogs, raccoons, skunks, frogs, turtles, lizards, snakes, snail, fish, shrimp, etc.).

Find an age-appropriate short video about the deciduous forest habitat to show to the class.

Make a copy of Instructional Master 5B-1 for each student. This will be the forest habitat page in their Habitat Journal.



Animals of the Temperate Deciduous Forest Habitat

5_A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Introducing the Read-Aloud

10 minutes

What Do We Know?

5 minutes

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?

5 minutes

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.

Vocabulary Preview

5 minutes

Temperate

1. In today's read-aloud you will hear that areas in the world that have *temperate* weather can support many different kinds of plants and animals.
2. Say the word *temperate* with me three times.
3. *Temperate* means weather that is not too hot and not too cold. Temperate describes the weather of places that experience all four seasons.
4. A temperate region never gets too cold, like the Arctic, or too hot, like the desert.
The United States is located in a temperate region of the world.
5. [Show images of the four seasons.] Do we live in a temperate area? Do we experience four seasons where we live? Does it get as cold as the Arctic where we live? Does it get as hot as the desert?

Deciduous Forest

← **Show image 5A-2: Great Smoky Mountains**



1. In today's lesson you will hear about a habitat called the *deciduous forest*.
2. Say *deciduous forest* with me three times.
3. A deciduous forest is a forest full of plants such as trees and bushes that lose their leaves in the fall and grow their leaves back in the spring.
4. The Smoky Mountains in this picture is one example of the many deciduous forests in the world.

5. [Show additional images of the deciduous forest and animals.] Describe the deciduous forest to your partner. What plants do you see? Which animals can you name?

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.



1 or strange and fascinating

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!

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

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

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.

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

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

11 or save



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



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.

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.

← **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.

← **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.



← **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.

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* [**Note:** Choose one or two animals.] 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 and barred owl alike? (They both live in the temperate deciduous forest; they both need food, water, and shelter; they both live in oak trees) How are they different? (The grey squirrel is an omnivore, but

the barred owl is a carnivore; they have different adaptations, 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.)

[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: Climate

5 minutes

1. In the read-aloud you heard, “The temperate deciduous forest has a much friendlier *climate* than the other habitats we’ve learned about.”
2. Say the word *climate* with me.
3. The climate is what the weather is usually like in an area.



← **Show image 3A-3: Rattenborough in desert**

4. The climate in the desert is very dry.
5. How else can you describe the climate in the desert?
[Ask two or three students. If necessary guide and/or rephrase students’ answers, “The climate in the desert is _____.” (very hot)]
6. What is the word we’ve been talking about?

Use a *Word to World* activity for follow-up. Directions: I will show you a picture of a habitat. Talk to your partner about the habitat's climate and whether or not you would like to live in that kind of climate.

- Image 2A-2 (Arctic): cold, icy, windy
- Image 4A-2 (Savanna): warm, rainy in the summer, dry in the winter
- Image 5A-3 (Forest): not too hot, not too cold, steady rain
- picture of a local park or school



Complete Remainder of the Lesson Later in the Day



Animals of the Temperate Deciduous Forest Habitat

5_B

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

20 minutes

↔ Multiple Meaning Word Activity

5 minutes

Definition Detective: Bark

Note: You may choose to have students hold up one or two fingers to indicate which image shows the meaning being described, or have a student walk up to the poster and point to the image being described.

1. In the read-aloud you heard the word *bark* in this sentence, “Bears (. . .) have sharp claws to strip the *bark* off trees to uncover the insects that live there.”
2. With your partner, think of many meanings or ways you can use the word *bark*.
3. [Show Poster 3M (Bark).] In the read-aloud, *bark* is the outer covering of a tree. Which picture shows this meaning of *bark*?
4. *Bark* is also the sound a dog makes. Which picture shows this meaning of *bark*?
5. Did you or your partner think of either of these definitions?
6. With your partner, make up a sentence for each meaning of *bark*. I will call on some of you to share your sentences. [Call on a few partner pairs to share one or all of their sentences. Have them point to the part of the poster that relates to their use of *bark*.]

Conjunction or

Note: 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. There may be variations in the sentences created by your class. Allow for these variations, and restate students' sentences so that they are grammatical. If necessary, have students repeat the sentence after you.

1. Conjunctions are a kind of word we use to connect words and phrases.
2. We use the conjunction **or** to join words and phrases that present another idea or option, especially when you need to make a choice.

Listen to Rattenborough's sentences about the forest habitat. I will emphasize the conjunction **or** as I read:

*Many of you may have seen forests before, either in real life **or** in books. Some animals like owls, woodpeckers, mice, and foxes make their homes in the branches **or** around the roots of the oak tree. Insects, like ants and timber beetles, live under the bark of the oak **or** in dead and fallen trees.*

3. Notice that in this sentence, Rattenborough uses the conjunction **or** when he presents another idea or option: real life *or* books; branches *or* around the roots; bark *or* dead leaves.
4. The conjunction **or** is used to join words and phrases that present another idea or option. Let's listen to some other sentences.

*Squirrels live in holes in the trunks of trees **or** in nests high up in trees.*

Where are the two places that squirrels can live? (tree trunk or nests)

*Bears sleep in hollowed-out trees **or** caves.*

Where are the places that bears sleep? (trees or caves)

5. Now you try joining two words or phrases together using **or**.
 - Tell your partner two things a squirrel can eat. (acorn, insects)
 - Tell your partner two things a bear can eat. (fruit from shrubs, insects)

↔ **Vocabulary Instructional Activity**

5 minutes

Word Work: Hibernate

1. In the read-aloud you heard, “Bears *hibernate* during the winter.”
2. Say the word *hibernate* with me three times.
3. *To hibernate* means to sleep during the winter season. [Invite students to make up a motion that shows *hibernate*.]
4. [Show images of different kinds of animals that hibernate.]
_____ hibernates during the winter.
5. How do animals prepare to hibernate?
[Hint: Where will it sleep? How can it stay warm? How does it not go hungry? Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “Animals prepare to hibernate by . . .”]
6. What’s the word we’ve been talking about?

Use a *Making Choices* activity for follow-up. Directions: I will describe an animal’s actions. If I describe an animal preparing to hibernate or an animal that is hibernating, do the motion for *hibernate*. If I describe an animal that is not preparing to hibernate or is not hibernating, stand up and run in place (or wave your hands in the air).

- The field mouse runs around in the snow to find some food. (not hibernating)
- The frog rests in a hole at the bottom of the pond to keep warm during the winter months. (hibernating)
- The bat sleeps in a cave during the winter and does not come out until spring. (hibernating)

- The black bear eats a lot to prepare for his long sleep in the winter. (hibernating)
- The dog went to sleep at night and woke up in the morning. (not hibernating)
- The geese flew to a warmer place for the winter. (not hibernating)
- The squirrel prepares its nest and stores extra food in the nest to last for the winter. (hibernating)

Habitat Chart

10 minutes

Note: Remind students that they are not expected to read all the words on the chart because they are still learning 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 information on the chart to them.

Briefly review information that is on the chart already. Remind students that each column is about a different habitat. Point to the column for the forest habitat. You may wish to have the class think of a symbol for the forest habitat and draw it at the top of the column. Tell students that you will fill in this chart with information they have learned about the forest habitat.

Read the items for the rows: *Climate*, *Water*, *Ground*, *Plants*, and *Animals*. Have students tell you about each of these features for the forest habitat. A completed chart may look like the following:

	Arctic	Desert	Savanna	Forest	Rainforest
Climate	cold and windy	hot and dry	warm, rainy summer; dry winter	temperate: not too hot, not too cold	
Water	a lot of water and salt water	not much rain	rain in the summer	enough water from rain	
Ground	frozen, covered in ice	sand	grass	leaves, bushes, grasses, wildflowers	
Plants	grasses, mosses	cacti	grasses, acacia trees	deciduous plants: oak, maple; shrubs, clover, moss	
Animals	muskox, wolverine, caribou, Arctic fox, Arctic hare, walrus, seal, polar bear	Gila woodpecker, elf owl, desert cottontail, coyotes	zebra, giraffe, elephant, oxpecker, lion, vulture	beetle, squirrel, barred owl, black bear, deer	

Habitat Journal: The Forest Habitat (Instructional Master 5B-1)

20 minutes

- Tell students that they will make another page for their Habitat Journal. Today they will draw a forest habitat. [You may wish to review Flip Book images and additional images related to the forest habitat before having students begin this activity.]
- Give each student Instructional Master 5B-1. Discuss what they have learned about the forest habitat. To help students brainstorm ideas for their drawing, you may wish to ask questions such as the following:
 1. Will there be many different kinds of plants? Will there be a lot of trees?
 2. Will there be different kinds of animals?

3. Which season will it be in your drawing?
 - After students have finished their drawings, ask them to write one sentence to describe their drawings of a forest habitat, using their sound/letter knowledge to sound out and write their sentences.
 - Have students share their journal page in small groups or with home-language peers.

Habitat Review

15 minutes

- Display Habitat Posters 1–4 at the front of the class. Name each habitat with the students.
- Tell students that you will hold up an Image Card of a plant or animal and that they need to help the plant or animal find its home, or habitat. Have students identify the plant or animal on the Image Card. Then put the Image Card next to a Habitat Poster and ask, “Does _____ belong in the _____ habitat? Hold up Rattenborough for yes or keep Rattenborough on your lap for *no*.”
- Alternatively, you can 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. Tell students to stand next to the Habitat Poster that depicts the habitat of the plant or animal card that s/he is holding. Finally, invite the students standing next to each Habitat Poster to present the plants and animals that live in that habitat.



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 Habitats: Arctic, Desert, Savanna, and Forest (Instructional Master PP-1)

Directions: Look at the pictures in the row, and name the habitats in order with me: arctic, desert, savanna, and forest. [Be sure that students are clear which habitat each picture represents.] I will say a sentence that describes one of these habitats. Circle the picture of the habitat my sentence is about.

1. This habitat is hot, dry, and sandy. (desert)
2. This habitat experiences all four seasons. (forest)
3. This habitat is cold and icy. (arctic)
4. This habitat is also called grassland because it is covered in grass. (savanna)
5. Polar bears live in this habitat. (arctic)
6. Giraffes and zebras are animals that live in this habitat. (savanna)
7. This habitat is full of deciduous trees that lose their leaves in the winter. (forest)
8. Cactus grows in this habitat. (desert)

Activities

10 Animals and Their Habitats (Instructional Master PP-2)

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-2. 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.

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.

Exploring Student Resources

Materials: Domain-related student websites

Pick appropriate websites from the Internet for further exploration of the arctic, desert, savanna, and forest habitats.

Videos Related to Habitats

Materials: Videos related to the arctic, desert, savanna, and forest habitats

Carefully peruse the Internet for short (5 minute), age-appropriate videos related to the arctic, desert, savanna, and forest habitats.

Prepare some questions related to the content presented in the videos.

Discuss how watching a video is the same as and different from listening to a storybook or read-aloud.

Have students ask and answer questions using question words *who*, *what*, *when*, *where*, and *why* regarding what they see in the videos.

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, whereas oak trees grow in a temperate deciduous forest; cacti do not lose their green color, whereas oak trees lose their green leaves; etc.) Record differences in each separately labeled portion of each circle.

Where Are We? 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)

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 the school's field.

Variation(s): colony

dense, adj. Thick

Example: The rainforest is very dense because many plants 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 of the rainforest 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

Vocabulary Chart for Animals of the Tropical Rainforest Habitat

Core Vocabulary words are in **bold**.

Multiple Meaning Word Activity word is underlined>.

Vocabulary Instructional Activity words have an asterisk (*).

Suggested words to pre-teach are in *italics*.

Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	Amazon equator habitat humid jaguar macaws omnivore/ carnivore nocturnal predators <i>rainforest</i> toucans <i>tropical</i> vines	exotic fascinating patterns pouncing shady temperature	ants forest fruit fur green insect monkey rain warm/hot wet
Multiple Meaning	canopy* colonies	thick dense	dark leaves plant snake
Phrases	boa constrictor broadleaf trees evergreen trees kapok tree poison arrow frog squirrel monkey tropical rainforest	greatest variety of well adapted to	year-round
Cognates	la Amazonia ecuador hábitat húmedo jaguar omnivore/ carnívoro nocturno(a) predador(ora) tucán <i>tropical</i> colonia	exótico(a) fascinante temperatura	fruto insecto planta

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud		
What Have We Already Learned?	KWL Chart for the Forest Habitat; Habitat Chart	Use either of these graphic organizers to review content from Lesson 5.
	chart paper to create Venn diagram; Instructional Master 6A-1	You may wish to begin a Venn diagram to compare and contrast the forest habitat and the rainforest habitat.
Where Are We?	Image Card 16 (Rainforest) , yarn, world map	You may wish to connect Image Card 16 to a rainforest area on a world map (Brazil in South America).
Vocabulary Preview: Tropical, Rainforest	globe	
	Image 6A-3; additional images of the rainforest and animals that live in the rainforest	
Purpose for Listening	chart paper to make a Know-Wonder-Learn (KWL) Chart	You may wish to create a KWL Chart for the rainforest habitat. Ask students what they know and wonder about the rainforest. At the end of the lesson or on the following day, have students share what they learned about the rainforest.
Presenting the Read-Aloud (15 minutes)		
Animals of the Tropical Rainforest Habitat		You may wish to pause after Image 6A-7 and review the different plants found in a rainforest before continuing on to Image 6A-8 and telling about the animals found in a rainforest.
		You may wish to conclude the read-aloud with a short video clip of the rainforest habitat.
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions	Venn diagram	You may wish to continue filling in the Venn diagram to answer question #8.
Word Work: Canopy	Image 6A-4	
 Complete Remainder of the Lesson Later in the Day		

Exercise	Materials	Details
Extensions (20 minutes)		
Habitat Chart	Habitat Chart	
Habitat Journal: The Rainforest Habitat	Instructional Master 6B-1, drawing tools	
Domain Related Trade Book	trade book about the forest or rainforest; drawing paper, drawing tools	
Take-Home Material		
Family Letter	Instructional Masters 6B-2 and 6B-3	

Advance Preparation

Bring in additional images of the rainforest and rainforest animals; find an age-appropriate short video about the rainforest to show to the class.

Create a Venn diagram to compare and contrast the forest habitat and the rainforest habitat, using Instructional Master 6A-1 as a guide. Students should be able to provide information about the forest habitat. At the end of the lesson, students should be able to provide information for the rainforest habitat and for the overlapping circles.

✈️ **Above and Beyond:** Make a copy of Instructional Master 6A-1 for students who are ready to fill in this diagram on their own.

Make a copy of Instructional Master 6B-1 for each student. This will be the rainforest habitat page in their Habitat Journals.

Find a trade book about the forest or rainforest to read aloud to the class.



Animals of the Tropical Rainforest Habitat

6A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Introducing the Read-Aloud

10 minutes

What Have We Already Learned?

5 minutes

Review what students have learned about the temperate deciduous forest. You may ask the following questions to prompt discussion:

- Is the climate extremely hot or cold in the forest?
- What kind of plants can be found in the forest?

[You may wish to begin a Venn diagram to compare and contrast forest and rainforest habitats.]

Where Are We?

5 minutes

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.

Vocabulary Preview

5 minutes

Tropical

1. In today's read-aloud, Rattenborough is going to take us to a *tropical* habitat.
2. Say the word *tropical* with me three times.
3. *Tropical* describes a place where the climate or weather is warm and wet.
4. [Point to the equator on the globe.] Tropical places are near the equator. Tropical climates are warm all year and have no winter. Tropical places do not have four seasons; they have a wet (rainy) season and a dry season.
5. If you enjoy cold weather, do you think you would like living in a tropical region? If you enjoy warm weather, do you think you would like living in a tropical region?

Rainforest



← Show image 6A-3: Dense jungle

1. In today's lesson you will hear about a habitat called the *rainforest*.
2. Say *rainforest* with me three times.
3. A tropical rainforest is a warm, wet, thick forest of plants that stay green year-round.
4. The rainforest is a habitat that is home to the greatest variety, or the most types of, plants and animals on Earth. The climate in the rainforest is warm all year long, so plants do not shed their leaves in the winter and animals have plenty to eat all year.

5. [Show additional images of the rainforest and rainforest animals.] Describe the rainforest to your partner. What do the plants look like? Which animals can you name?

Note: A jungle, though similar to a rainforest, is sometimes located within or on the outskirts of the rainforest. Jungles have more growth on the ground which makes it harder to walk in the jungle.

Purpose for Listening

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



Animals of the Tropical Rainforest Habitat

← Show image 6A-2: Rattenborough swinging through rainforest

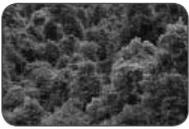
Hello there. Rattenborough reporting from a fascinating habitat—a habitat that has the greatest variety of plants and animals of any habitat on Earth. Welcome to the tropical rainforest. Tropical places are warm and wet. A rainforest is a thick forest of plants that stay green year-round. So, a tropical 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**

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.

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

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**

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**

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.

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.

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* [**Note:** Choose one or two animals.] 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. The canopy made the forest floor shady.
5. Have you ever seen a canopy? If so, where? [Suggestions: outdoor tent, covering over restaurant tables, covering in a parking lot. Ask two or three students. If necessary, guide and/or rephrase the students' responses: "I saw a canopy at . . ."]

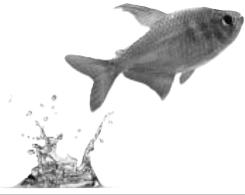
6. What's the word we've been talking about?

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

6_B

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

20 minutes

Habitat Chart

10 minutes

Note: Remind students that they are not expected to read all of the words on the chart because they are still learning 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 information on the chart to them.

Briefly review information that is on the chart already. Remind students that each column is about a different habitat. Point to the column for the rainforest habitat. You may wish to have the class think of a symbol for the rainforest habitat and draw it at the top of the column. Tell students that you will fill in this chart with information they have learned about the rainforest habitat.

Read the items for the rows: *Climate, Water, Ground, Plants, and Animals*. Have students tell you about each of these features for the rainforest habitat. A completed chart may look like the following:

	Arctic	Desert	Savanna	Forest	Rainforest
Climate	cold and windy	hot and dry	warm, rainy summer; dry winter	temperate: not too hot, not too cold	warm, wet, humid
Water	a lot of water and salt water	not much rain	rain in the summer	enough water from rain	heavy rain
Ground	frozen, covered in ice	sand	grass	leaves, bushes, grasses, wildflowers	mosses, fungi, leaves, vines
Plants	grasses, mosses	cacti	grasses, acacia trees	deciduous plants: oak, maple; shrubs, clover, moss	evergreen plants: kapok tree, vines
Animals	muskox, wolverine, caribou, Arctic fox, Arctic hare, walrus, seal, polar bear	Gila woodpecker, elf owl, desert cottontail, coyotes	zebra, giraffe, elephant, oxpecker, lion, vulture	beetle, squirrel, barred owl, black bear, deer	toucan, macaw, poison arrow frog, squirrel monkey, boa constrictor, jaguar, leafcutter ants

Habitat Journal: The Rainforest Habitat (Instructional Master 6B-1)

20 minutes

- Tell students that they will make another page for their Habitat Journals. Today they will draw a rainforest habitat. [You may wish to review Flip Book images and additional images related to the rainforest habitat before having students begin this activity.]
- Give each student Instructional Master 6B-1. Discuss what they have learned about the rainforest habitat. To help students brainstorm ideas for their drawings, you may wish to ask questions such as the following:
 1. What kinds of plants will be in your drawing? Will there be many plants or just a few plants?

2. What kinds of animals will be in your drawing? What colors will some of them be?
 3. Will there be water in your drawing?
- After students have finished their drawings, ask them to write one sentence to describe their drawings of a rainforest habitat, using their sound/letter knowledge to sound out and write out their sentences.
 - Have students share their journal page in small groups or with home-language peers.

Domain-Related Trade Book

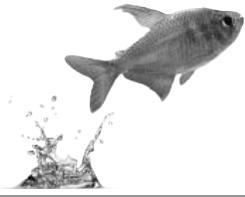
20 minutes

- Refer to the list of recommended trade books in the Introduction at the front of this *Supplemental Guide*, and choose one trade book about the forest habitat or rainforest habitat to read aloud to the class.
- Explain to students that the person who wrote the book is called the author. Tell students the name of the author. Explain to students that the person who makes the pictures for the book is called an illustrator. Tell students the name of the illustrator. Show students where they can find this information on the cover of the book or on the title page.
- As you read, use the same strategies that you have been using when reading the read-aloud selections—pause and ask occasional questions; rapidly clarify critical vocabulary within the context of the read-aloud; etc.
- After you finish reading the trade book aloud, lead students in a discussion as to how the story or information in this book relates to the read-alouds in this domain.
- Provide students with drawing paper, drawing tools and writing tools. Have students draw one detail they remember from the trade book. Students may also draw one new thing that they learned from the trade book that they did not know before. Ask students to label their pictures or write a sentence to go along with their drawings. Have students share their drawings and writing with their partner or with home-language peers.

Take-Home Material

Family Letter

Send home Instructional Masters 6B-2 and 6B-3.



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 water for swimming and areas of dry land 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 fish's large gills on the side of its body as it swam by.

Variation(s): gill

Vocabulary Chart for Animals of the Freshwater Habitat

Core Vocabulary words are in **bold**.
 Multiple Meaning Word Activity word is underlined.
 Vocabulary Instructional Activity words have an asterisk (*).
 Suggested words to pre-teach are in *italics*.

Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	amphibious bullfrog cattail carnivore/ omnivore dragonfly elk <i>freshwater</i> gills habitat mallards moose muskrats predators	enormous/tiny* oxygen	animal bird feather frog geese insect lake/pond/river/ stream leaf rain/ice/snow turtle
Multiple Meaning	<u>bill</u> float roots shoots	edge energy kind rest	drink duck fish plant snakes water
Phrases	“a fish out of water” rainbow trout water lily	hover around well adapted	dry land hiding places
Cognates	anfíbio carnívoro/ omnivore hábitat predador(ora) flotar	enorme* oxígeno energía	animal insecto lago tortuga planta

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud (10 minutes)		
What Have We Already Learned?	Habitat Chart; chart paper, chalkboard, or whiteboard; black, brown, and blue markers or colored chalk	Categorize the different habitats into land habitats or water habitats. Note: So far only the Arctic Ocean has been presented as a water habitat.
Where Are We?	Image Card 22 (Ducks), yarn, world map	You may wish to connect Image Card 22 to a freshwater habitat on a world map (e.g., the Great Lakes in Michigan, Mississippi River).
	globe, U.S. map	Use the globe and the U.S. map to point out freshwater sources in the world and in the U.S.
Vocabulary Preview: Freshwater	Image 7A-1; U.S. map	
Purpose for Listening		
Presenting the Read-Aloud (15 minutes)		
Animals of the Freshwater Habitat		You may wish to conclude the read-aloud with a short video clip of a freshwater habitat (e.g., video of lakes, rivers, streams, or wetlands).
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions		
Sayings and Phrases: A Fish Out of Water	drawing paper, drawing tools	
 Complete Remainder of the Lesson Later in the Day		
Extensions (20 minutes)		
Multiple Meaning Word Activity: Bills	Poster 4M (Bills)	

Exercise	Materials	Details
Syntactic Awareness Activity: Making a List Using the Conjunction <i>or</i>	Images 7A-7, 7A-8, and 7A-11; Large display with space for three words and the conjunction <i>or</i> , separated by two commas. _____, _____, or _____	
Vocabulary Instructional Activity: Enormous	Image 7A-4; chart paper, green, yellow, and red markers, tape, index cards	Create a Horizontal Word Wall for <i>enormous</i> .
Habitat Journal: The Freshwater Habitat	Instructional Master 7B-1, drawing tools	

Advance Preparation

Find an age-appropriate short video about freshwater habitats (e.g., rivers, lakes, ponds, streams, wetlands) to show to the class.

For Syntactic Awareness Activity, create a large display with space for three words, the conjunction *or*, separated by two commas.

The display should look like the following:

_____, _____, or _____

For the Vocabulary Instructional Activity, create a Horizontal Word Wall by drawing a horizontal line from left to right on a large piece of chart paper. Write each of the following words on an individual index card: (in green) *tiny, mini, petite, wee, little, small*; (in yellow) *medium, normal, average*; (in red) *enormous, gigantic, colossal, giant, jumbo, large, big*.

Make a copy of Instructional Master 7B-1 for each student. This will be the freshwater habitat page in their Habitat Journals.



Animals of the Freshwater Habitat

7A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Introducing the Read-Aloud

10 minutes

What Have We Already Learned?

10 minutes

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.

Where Are We?

5 minutes

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.

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.

Vocabulary Preview

5 minutes

Freshwater



← **Show image 7A-1: Examples of freshwater habitats**

1. In today's lesson you will hear about *freshwater* habitats.
2. Say *freshwater* with me three times.
3. Freshwater is water that is not salty. Freshwater is water that we drink.
4. Only a very small amount of Earth's water is freshwater. The water in rivers, lakes, and streams is freshwater. [Point to a few areas on the U.S. map that have freshwater.]
The water from the ocean, sea, and bay is saltwater, not freshwater. [Point to the oceans on the U.S. map that are saltwater.]

5. Can you name some freshwater places in this image? [Name the images going clockwise: river, stream, wetland, pond, and lake.]

Purpose for Listening

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



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 edge² 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 enormous³ 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

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

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

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, whereas 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.

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

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.



← **Show image 7A-8: Bullfrog**¹¹

11 What do you see in this image?

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!

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

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.



← **Show image 7A-9: Adult dragonfly**¹³

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

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.

14 or stay in one place while flying

The dragonfly uses its long wings to hover¹⁴ 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!

Comprehension Questions

10 minutes

1. *Literal* What are some examples of freshwater habitats? (rivers, streams, lakes, and ponds)
2. *Literal* Is most of the earth's water fresh water or salt water? (salt water)
3. *Literal* What are some plants that live in freshwater habitats? (water lilies, cattails)
4. *Literal* 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)
5. *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.)
6. *Inferential* 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.]

Sayings and Phrases: A Fish Out of Water

5 minutes

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.)

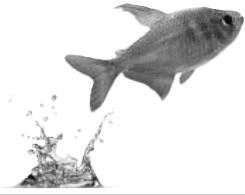
Explain to students that this saying is used to talk about people. People would survive if they weren’t in their usual place, but they just might feel a little uncomfortable or strange. Give students an example, such as how strange they would feel if they were the only person who forgot to wear shoes 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.



Complete Remainder of the Lesson Later in the Day



Animals of the Freshwater Habitat

7
B

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

20 minutes

↔ Multiple Meaning Word Activity

5 minutes

Context Clues: Bills

Note: You may choose to have students hold up one, two, or three fingers to indicate which image shows the meaning being described, or have a student walk up to the poster and point to the image being described.

1. [Show Poster 4M (Bills).] In the read-aloud you heard, “[Ducks] use their beaks, which are called *bills*, to search for food at the bottom of the lake.” Which picture shows these kinds of *bills*?
2. Bills are also pieces of paper money. Which picture shows these kinds of *bills*?
3. A bill can also be a piece of paper showing how much money you need to pay. Which picture shows this kind of *bill*?
4. I’m going to say some sentences with the word *bills*. Hold up one finger if my sentence tells about *bills* in picture one; hold up two fingers if my sentence tells about *bills* in picture two; and hold up three fingers if my sentence tells about *bills* in picture three.
 - The toucans in the rainforest have colorful bills.
 - My uncle was surprised to see how expensive the car repair bills were.

- Sarah’s mother gave her three one-dollar bills to buy milk.
- The mallards have small fish in their bills.
- There are a few bills in the mail that need to be paid.
- There are pictures of different U.S. presidents on the bills.

↔ Syntactic Awareness Activity

5 minutes

Making a List Using the Conjunction or

Note: 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. There may be variations in the sentences created by your class. Allow for these variations, and restate students’ sentences so that they are grammatical. If necessary, have students repeat the sentence after you.

1. Conjunctions are a kind of word we use to connect words and phrases.
2. We use the conjunction **or** to join words and phrases that present another idea or option, especially when we need to make a choice. Today we will use the conjunction **or** to make a list of options or choices.



← Show image 7A-7: Rainbow trout

Listen to Rattenborough’s sentence about what rainbow trout eat. I will emphasize the conjunction **or** as I read:

*The rainbow trout is a carnivore. Its dinner tonight might be insects, other fish, **or** mice.*

3. [Write *insects*, *fish*, or *mice* on the display, and read it to the class.] Notice that in this sentence, Rattenborough uses the conjunction **or** when he lists what the rainbow trout might eat for dinner.



← Show image 7A-8: Bullfrog

4. The conjunction **or** is used to join the last item on a list. Let’s listen to another sentence.
[Write *snakes*, *birds*, or *insects* on the display, and read it to

the class.]

The bullfrog is also a carnivore. Its dinner tonight might be snakes, birds, or insects.



← **Show image 7A-11: Duck looking for food**

5. Now you try making a list and using **or** to join the last item on the list.
 - Tell your partner three things this duck might catch for dinner. (grasses, worms, snails, small fish)
 - Tell your partner three different things you might like for dinner.

↔ **Vocabulary Instructional Activity**

5 minutes

Horizontal Word Wall: Enormous



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

1. In the read-aloud you heard Rattenborough say, “I see an *enormous* leaf in the water. Let me climb onto it.”
2. *Enormous* means very large.
3. Let’s create a Horizontal Word Wall to show different words that describe size. [Show students the chart paper, and point out the horizontal line.]
4. [Hold up the card for the word *big*, and read the word aloud.] *Big* is a word to describe something that is not small. Show me with your hands what *big* looks like. [Tape the card for *big* on the right-hand side of the line.]
5. [Hold up the card for the word *small*, and read the word aloud.] *Small* is a word to describe something that is not big. Show me with your hands what *small* looks like. [Tape the card for *small* on the left-hand side of the line.]
6. [Hold up the card for the word *medium*, and read the word aloud.] *Medium* is a word to describe something that is neither big nor small. Show me with your hands what *medium* looks like. [Tape the card for *medium* in the middle of the line.]
7. [Hold up the card for the word *enormous*, and read the word aloud.] Should I put *enormous* closer to the word *small*,

medium, or *big*? [Tape the card near the word *big* on the right-hand side of the line.]

8. [Repeat this process with the remaining cards: *tiny*, *mini*, *petite*, *wee*, *little*; *normal*, *average*; *gigantic*, *colossal*, *giant*, *jumbo*, *large*. When all the cards have been attached to the word wall, read the words with students.]
9. With your partner, choose two words from the Horizontal Word Wall, and make a sentence for each word.

[Display the Horizontal Word Wall throughout the domain, and encourage students to add additional words to the wall.]

Habitat Journal: The Freshwater Habitat (Instructional Master 7B-1)

20 *minutes*

- Tell students that they will make another page for their Habitat Journals. Today they will draw a freshwater habitat. [You may wish to review Flip Book images of the freshwater habitat before having students begin this activity.]
- Give each student Instructional Master 7B-1. Discuss what they have learned about the freshwater habitat. To help students brainstorm ideas for their drawings, you may wish to ask questions such as the following:
 1. What kind of freshwater habitat will you draw? (lake, river, pond, wetland or stream)
 2. What kind of plants will be in your drawing? Will any of them float on the water?
 3. Will there be insects in your drawing?
 4. Will there be fish in your drawing?
- After students have finished their drawings, ask them to write one sentence to describe their drawings of the freshwater habitat, using their sound/letter knowledge to sound out and write out their sentences.
- Have students share their journal page in small groups or with home-language peers.



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 saltwater or freshwater

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

Vocabulary Chart for Animals of the Saltwater Habitat

Core Vocabulary words are in **bold**.
 Multiple Meaning Word Activity word is underlined.
 Vocabulary Instructional Activity words have an asterisk (*).
 Suggested words to pre-teach are in *italics*.

Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	carnivore clams coastline/shoreline habitat jellyfish lobster oysters plankton predator/prey regeneration saltwater shellfish skeleton starfish/seastar valleys	explore tiny	animal beach breathe crabs floor ocean/sea octopus/octopi salt sharks turtles whale
Multiple Meaning		conditions covered deep help part slopes shallow*	blue fish plant water
Phrases	blue whale <i>coral reef</i> hammerhead Pacific Ocean shark		deeper and deeper
Cognates	carnívoro hábitat ostra plancton predador(ora)/ presa regeneración esqueleto valle <i>arrecife de coral</i> Océano Pacífico	explorar parte	animal océano sal tortuga planta

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud		
What Have We Already Learned?		
Where Are We?	Image Card 23 (Coral Reef), yarn, world map	You may wish to connect Image Card 23 to a saltwater habitat on a world map (e.g., the Pacific Ocean).
Vocabulary Preview: Coral Reef	Image 8A-6	
Purpose for Listening		
Presenting the Read-Aloud (15 minutes)		
Animals of the Saltwater Habitat	world map or globe	You may wish to pause after Image 8A-7 and review the different features of an ocean before continuing on to Image 8A-8 and telling about the animals found in an ocean.
		You may wish to conclude the read-aloud with a short video clip of a saltwater (ocean) habitat.
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions		
Word Work: Shallow		
 Complete Remainder of the Lesson Later in the Day		
Extensions (20 minutes)		
Habitat Journal: The Saltwater Habitat	Instructional Master 8B-1, drawing tools	
Habitat Review	Image Cards 16–26; Habitat Posters 5–7; Rattenborough cutout	Invite students to put their Rattenborough cutout on the correct Habitat Poster.
Domain-Related Trade Book	trade book about a freshwater or saltwater habitat; drawing paper, drawing tools	

Advance Preparation

Find an age-appropriate, short video about the saltwater (ocean) habitat to show to the class.

Make a copy of Instructional Master 8B-1 for each student. This will be the saltwater habitat page in their Habitat Journals.

Find a trade book about a freshwater or saltwater habitat to read aloud to the class.



Animals of the Saltwater Habitat

8A

Note: Introducing the Read-Aloud may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Introducing the Read-Aloud

10 minutes

What Have We Already Learned?

5 minutes

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)

Where Are We?

5 minutes

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?



Vocabulary Preview

5 minutes

← Show image 8A-6: Coral reef

Coral Reef

1. In today's lesson you will hear about a special place in a saltwater habitat called the *coral reef*.
2. Say *coral reef* with me three times.
3. A coral reef is made up of many tiny sea animals called corals. Corals have skeletons that can be on the inside or outside. When the coral animals die, their skeleton remains in place and other coral animals will come and live on top of it.
4. A coral reef might look like a large rock with many holes, but it is actually a living thing.
5. The coral reef is actually a habitat to several sea animals. Can you see any in this image? [Point to and name fish, anemone, starfish (camouflaged).] What other sea animals do you think call the coral reef home? (jellyfish, crab, clams, shrimp, lobster, and many more animals)

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.



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.]

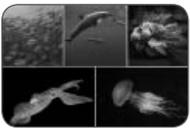
2 [Visually demonstrate with an object, such as a wooden incline block or wedge, or illustrate on the chalkboard, what the word *slopes* means.]



← **Show image 8A-4: Ocean floor**

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**

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.

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.

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



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

← **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!



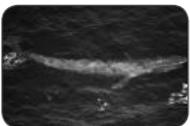
← **Show image 8A-11: Hammerhead shark**

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—walrus 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.)



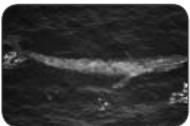
← **Show image 8A-10: Lobster**

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

Note: Extensions may have activity options that exceed the time allocated for this part of the lesson. To remain within the time periods allocated for this portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Extensions

20 minutes

Habitat Journal: The Saltwater Habitat (Instructional Master 8B-1)

20 minutes

- Tell students that they will make another page for their Habitat Journals. Today they will draw a saltwater habitat. [You may wish to review Flip Book images of the saltwater habitat before having students begin this activity.]
- Give each student Instructional Master 8B-1. Discuss what they have learned about the saltwater habitat. To help students brainstorm ideas for their drawing, you may wish to ask questions such as the following:
 1. Will there be fish in your drawing?
 2. What kinds of animals will you include in your drawing?
 3. What colors will you use in your drawing?
- After students have finished their drawings, ask them to write one sentence to describe their drawings of a saltwater habitat, using their sound/letter knowledge to sound out and write out their sentences.
- Have students share their journal pages in small groups or with home-language peers.

Habitat Review

15 minutes

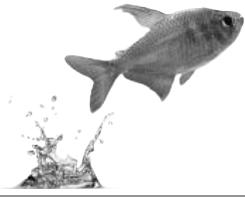
- Display Habitat Posters 5–7 at the front of the class. Name each habitat with the students.
- Tell students that you will hold up an Image Card of a plant or animal and that they need to help the plant or animal find its home, or habitat. Have students identify the plant or animal on the Image Card. Then put the Image Card next to a Habitat Poster and ask, “Does _____ belong in the _____ habitat? Hold up Rattenborough for yes or keep Rattenborough on your lap for *no*.”
- Alternatively, you can place the Habitat Posters in different locations around the room. Pass out Image Cards 16–26 to students—either one card per student or one card per pair of students, depending upon the number of students in your class. Tell students to stand next to the Habitat Poster that depicts the habitat of the plant or animal card that s/he is holding. Finally, invite the students standing next to each Habitat Poster to present the plants and animals that live in that habitat.

Domain-Related Trade Book

20 minutes

- Refer to the list of recommended trade books in the Introduction at the front of this *Supplemental Guide*, and choose one trade book about a freshwater or saltwater habitat to read aloud to the class.
- Explain to students that the person who wrote the book is called the author. Tell students the name of the author. Explain to students that the person who makes the pictures for the book is called an illustrator. Tell students the name of the illustrator. Show students where they can find this information on the cover of the book or on the title page.
- As you read, use the same strategies that you have been using when reading the read-aloud selections—pause and ask occasional questions; rapidly clarify critical vocabulary within the context of the read-aloud; etc.

- After you finish reading the trade book aloud, lead students in a discussion as to how the story or information in this book relates to the read-alouds in this domain.
- Provide students with drawing paper, drawing tools and writing tools. Have students draw one detail they remember from the trade book. Students may also draw one new thing that they learned from the trade book that they did not know before. Ask students to label their pictures or write a sentence to go along with their drawings. Have students share their drawings and writing with their partner or with home-language peers



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 hurt or harm; to put in 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 that might die out completely

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

Vocabulary Chart for Habitat Destruction and Endangered Species

Core Vocabulary words are in **bold**.

Multiple Meaning Word Activity word is underlined.

Vocabulary Instructional Activity words have an asterisk (*).

Suggested words to pre-teach are in *italics*.

Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	endanger expedition <i>extinct</i> extinction habitat scavengers scientist species	amazing chemical destroy* discovered disrupt grand surroundings survive temperature	forest home
Multiple Meaning	<u>match</u>	change harder longer	nest plant spot wing
Phrases	bald eagle endangered food chain species	an amazing comeback die out	
Cognates	expedición <i>extinto(a)</i> extinción hábitat científico(a) especie	químico destruir* descubrir grandioso(a) temperatura	planta

Note: Introducing the Read-Aloud and Extensions may have activity options that exceed the time allocated for that part of the lesson. To remain within the time periods allocated for each portion of the lesson, you will need to make conscious choices about which activities to include based on the needs of your students.

Exercise	Materials	Details
Introducing the Read-Aloud (10 minutes)		
What Have We Already Learned?	KWL Chart for the arctic habitat; Habitat Chart	Use these graphic organizers to review how plants and animals have adapted to their habitat, in particular the arctic habitat.
Vocabulary Preview: Endangered Species, Extinct	Image 9A-4; pictures of endangered and extinct species.	
Purpose for Listening		
Presenting the Read-Aloud (15 minutes)		
Habitat Destruction and Endangered Species	U.S. map	
Discussing the Read-Aloud (15 minutes)		
Comprehension Questions		
Word Work: Destroy		
 Complete Remainder of the Lesson Later in the Day		
Extensions (20 minutes)		
Multiple Meaning Word Activity: Match	Poster 5M (Match)	
Brainstorming Links	chart paper, chalkboard, or whiteboard	Note: Your class may be interested in researching a local endangered species. You may wish to follow the same format to make an additional Brainstorming Link for this endangered species.

Advance Preparation

Bring in pictures of endangered and extinct species. You may wish to use the following websites for reference:

<http://www.fws.gov/endangered>

(Find endangered species in your state.)

<http://science.discovery.com/creatures/10-extinct-species.htm>

(View pictures and read about a few extinct species.)



Habitat Destruction and Endangered Species

9A

Introducing the Read-Aloud

10 minutes

What Have We Already Learned?

5 minutes

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?

Vocabulary Preview

5 minutes

Endangered Species



← Show image 9A-4: Bald eagle in flight

1. In today's lesson you will hear about an *endangered species* called the bald eagle.
2. Say *endangered species* with me three times.
3. Endangered species are animals or plants that have become so few in number that they might die out completely.

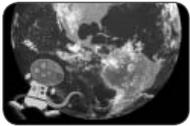
4. Humans need to be careful not to ruin the habitats of endangered species.
5. [Show pictures of a few endangered species. Name the endangered species.] This is an endangered species. Does this mean there are many of them living or very few of them living? Why do you think this species became endangered?

Extinct

1. In today's read-aloud you will learn that people try to keep the endangered species safe, so the endangered species will not become *extinct*.
2. Say *extinct* with me three times.
3. *Extinct* means no longer alive; and refers to a kind of animal or plant that has died out completely and/or can no longer be found on the earth.
4. The bald eagle almost became extinct.
Dinosaurs are extinct.
5. [Show pictures of extinct animals. Name the animal.] This animal is extinct. Does this mean that there are any other animals like it in the world? Does this mean that we think this type of animal will ever appear on the earth again?

Purpose for Listening

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



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.

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

Sometimes people's actions **destroy** entire habitats.³ For example, someone walking in a forest might light a match and

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?



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.

3 To destroy something means to ruin or break it.

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**

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.

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

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.



← **Show image 9A-4: Bald eagle in flight**

8 What is a scavenger?

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.



← **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?

11 When scientists discover things, they learn new information.

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.

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 hurt animal habitats? (They can hurt them by building cities and roads, cutting down trees, putting chemical into the soil, etc.
How can people protect habitats? (They can protect them by making careful laws about where to build, and by avoiding chemicals that harm animals.)
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

9_B

Extensions

20 minutes

↔ Multiple Meaning Word Activity

5 minutes

Multiple Choice: Match

Note: You may choose to have students hold up one, two, or three fingers to indicate which image shows the meaning being described, or have a student walk up to the poster and point to the image being described.

1. In the read-aloud you heard, “Someone walking in a forest might light a *match* and drop it, and then the whole forest might burn.” Which picture shows this type of *match*?
2. *Match* also means other things. To match two things together means to make a connection between the two things. Which picture shows this type of *match*?
3. A match is also a contest or competition between two people or two teams. Which picture shows this type of *match*?
4. Now that we have gone over the different meanings for *match*, quiz your partner on these different meanings. Try to use complete sentences. For example, you could say, “There is a soccer match tomorrow.” And your partner should respond, “That’s number ‘2.’”

Brainstorming Links

15 minutes

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, 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.

Habitat Review

Materials: Habitat Posters 1–7; Image Cards 1–26

You may wish to do a cumulative habitat review using all the Image Cards. Hang up the Habitat Posters in different areas around the room. Give each student an Image Card, and direct students to go

to the Habitat Poster of the habitat to which their plant or animal belongs. Students will present their habitat to the rest of the class.

Riddles for Core Content

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

- I live in the Arctic, and I spend most of my time floating on sea ice. What am I? (polar bear)
- I am a plant that can survive in the desert. I am known for my prickly spines. What am I? (cactus)
- I live in groups called prides in the savanna, and I am a carnivore that eats other animals. What am I? (lion)
- I have white and black stripes and live in the savanna. I am prey to the lion. What am I? (zebra)
- I live in a hole in an oak tree in the forest. I am active at night and enjoy eating small animals. What am I? (barred owl)
- I live in the forest where I graze on grass, leaves, and berries. I only eat plants, so I am a herbivore. What am I? (deer)

You may also wish to make some of your own riddles that focus on predator/prey, categorizing animals as carnivore, herbivore, or omnivore.

Venn Diagram: Freshwater Habitat and Saltwater Habitat

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 river or a lake, representing a freshwater habitat, and an ocean wave, representing a saltwater habitat. Ask students to think about how freshwater and saltwater habitats are alike. (Both have water; both support plant and animal life; both have fish.) Record students' responses in the overlapping part of the circles. Next, ask students to think about a freshwater habitat and how it is different from a saltwater habitat. (freshwater: much smaller area, water lilies, rainbow trout, dragonfly, frog; saltwater: much larger area, coral reef, whales, sharks, starfish)

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 three 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. Parts II and III 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:** A habitat only provides shelter. (frowning face)
2. **Climate:** Climate is what the weather is like in an area. (smiling face)
3. **Savanna:** Savanna is a habitat that has a lot of grass. (smiling face)
4. **Arctic:** The arctic is a very hot and dry habitat. (frowning face)
5. **Predator:** A predator hunts and eats other animals for food. (smiling face)
6. **Freshwater:** Oceans are examples of freshwater habitats. (frowning face)
7. **Omnivore:** An omnivore eats only plants. (frowning face)

8. **Carnivore:** A carnivore eats only other animals. (smiling face)
9. **Hibernate:** To hibernate means to sleep during the long, cold winter. (smiling face)
10. **Extinct:** There is a chance that an extinct animal will come back to life. (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. **Adapt:** *To adapt* means not to change; or to stay the same. (frowning face)
12. **Survive:** *Survive* means to live. (smiling face)
13. **Enormous:** *Enormous* means very tiny. (frowning face)
14. **Shallow:** *Shallow* means not deep. (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 a habitat has or provides.
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.

Part III (Instructional Master DA-3)

Directions: Make the cover page for your Habitat Journal. Draw a picture of your favorite topic from the *Animals and Habitats* domain. Write one sentence about your favorite topic.



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 areas 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

Enrichment

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.

Exploring Student Resources

Materials: Domain-related student websites

Pick appropriate websites from the Internet for further exploration of the rainforest, freshwater, and ocean habitats as well as endangered species.

Videos Related to Habitats

Materials: Videos related to the rainforest, freshwater, and ocean habitats

Carefully peruse the Internet for short (5 minute), age-appropriate videos related to the rainforest, freshwater, and ocean habitats.

Prepare some questions related to the content presented in the videos.

Discuss how watching a video is the same as and different from listening to a storybook or read-aloud.

Have students ask and answer questions using question words *who*, *what*, *when*, *where*, and *why* regarding what they see in the videos.

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.

“A Fish Out of Water”

Materials: Habitat Posters 1–7; Image Cards 1–26

Show students the Habitat Posters for each of the habitats they have learned about. Using the Image Cards, ask students to identify which habitat is the home of a particular plant or animal. Extend students’ thinking by asking them what would happen if a specific plant or animal then had to move to another habitat. Would that plant or animal be able to survive in the new habitat? In which ways would the plant or animal need to adapt to the new 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:

Instructional Masters for
Animals and Habitats



1A-1

Name _____

Nonliving

Living

Name _____

Food

Shelter



Dear Family Member,

Over the next several days, your child will be learning about many different types of habitats, including the arctic habitat and desert habitat. Your child will learn that a habitat provides food, water, and shelter for plants and animals.

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

1. Backyard/Neighborhood Habitat

Go outdoors with your child to observe the living things around you. Help your child to identify an area, or habitat, that provides animals (or insects) food, water, and shelter. Have your child draw a picture of that backyard/neighborhood habitat on the activity sheet. Help your child write where the habitat is located and what can be found in that habitat.

2. Name that Habitat

Your child will learn about the arctic, desert, savanna (grassland), and forest habitats in the first half of this domain. Name a few items associated with one of the habitats (below and on the next page), and see if your child can name that habitat.



Arctic: ice, freezing, wolverine, caribou (reindeer), arctic fox, arctic hare, walrus, seal, polar bear



Desert: dry, hot, sand, cactus, Gila woodpecker, elf owl, cottontail rabbit, coyote



Savanna (grassland): grass, acacia tree, zebra, giraffe, elephant, lion



Forest: deciduous trees, wildflowers, berry bushes, squirrel, barred owl, black bear, deer

3. Read Aloud Each Day

Find time to read to your child each day. I have included a list of books about animals and habitats with this letter.

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

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, 1997) ISBN 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



Vocabulary List for Animals and Habitats (Part 1)

This list includes many important words your child will learn about in *Animals and Habitats*. Try to use these words with your child in English and in your native language. Next to this list are suggestions of fun ways your child can practice and use these words at home.

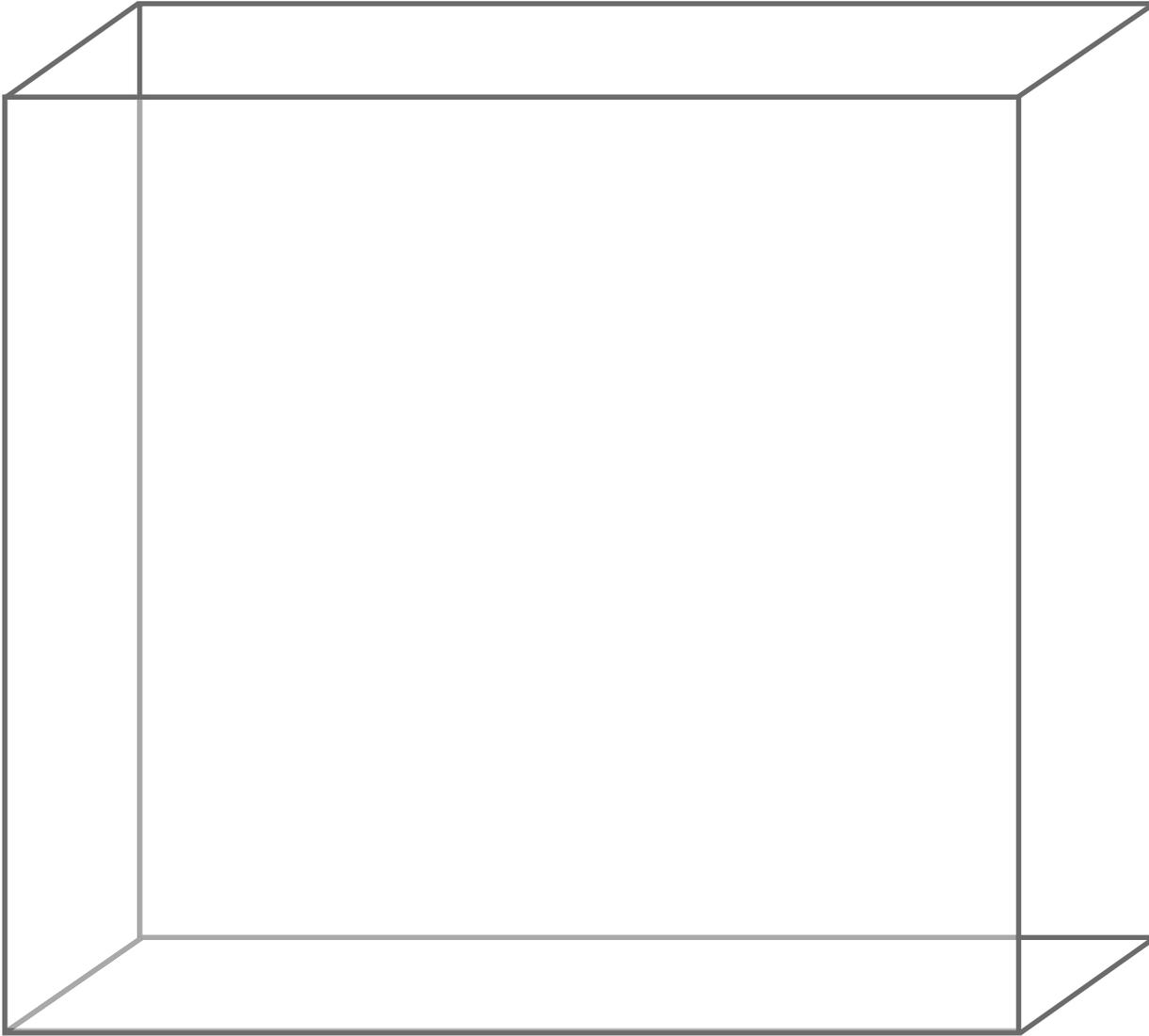
- habitat
- shelter
- survive
- adapted
- camouflage
- carnivore
- herbivore
- omnivore
- nocturnal
- predators
- prey
- prickly
- climate
- hibernate
- species

Directions: Help your child pick a word from the vocabulary list. Then help your child choose an activity and do the activity with the word. Check off the box for the word. Try to practice a word a day in English and in your native language.

	Draw it
	Use it in a sentence
	Find one or two examples
	Tell a friend about it
	Act it out
	Make up a song using it

1B-4

Name _____



Where is this habitat? _____

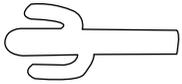
What is in the habitat? _____

Rainforest					
Forest					
Savanna					
Desert					
Arctic					
	Climate	Water	Ground	Plants	Animals

	Arctic	Desert	Savanna	Forest	Rainforest
Climate	cold and windy	hot and dry	warm, rainy summer; dry winter	temperate: not too hot, not too cold	warm, wet, humid
Water	a lot of water and salt water	not much rain	rain in the summer	enough water from rain	heavy rain
Ground	frozen, covered in ice	sand	grasses	leaves, bushes, grasses, wildflowers	mosses, fungi, leaves, vines
Plants	grasses, mosses	cacti	grasses, acacia trees	deciduous plants: oak, maple; shrubs, clover, moss	evergreen plants: kapok tree, vines
Animals	musk ox, wolverine, caribou, Arctic fox, Arctic hare, walrus, seal, polar bear	Gila woodpecker, elf owl, desert cottontail, coyote	zebra, giraffe, elephant, oxpecker, lion, vulture	beetle, squirrel, barred owl, black bear, deer	toucan, macaw, poison arrow frog, squirrel monkey, boa constrictor, jaguar, leafcutter ants

Name _____

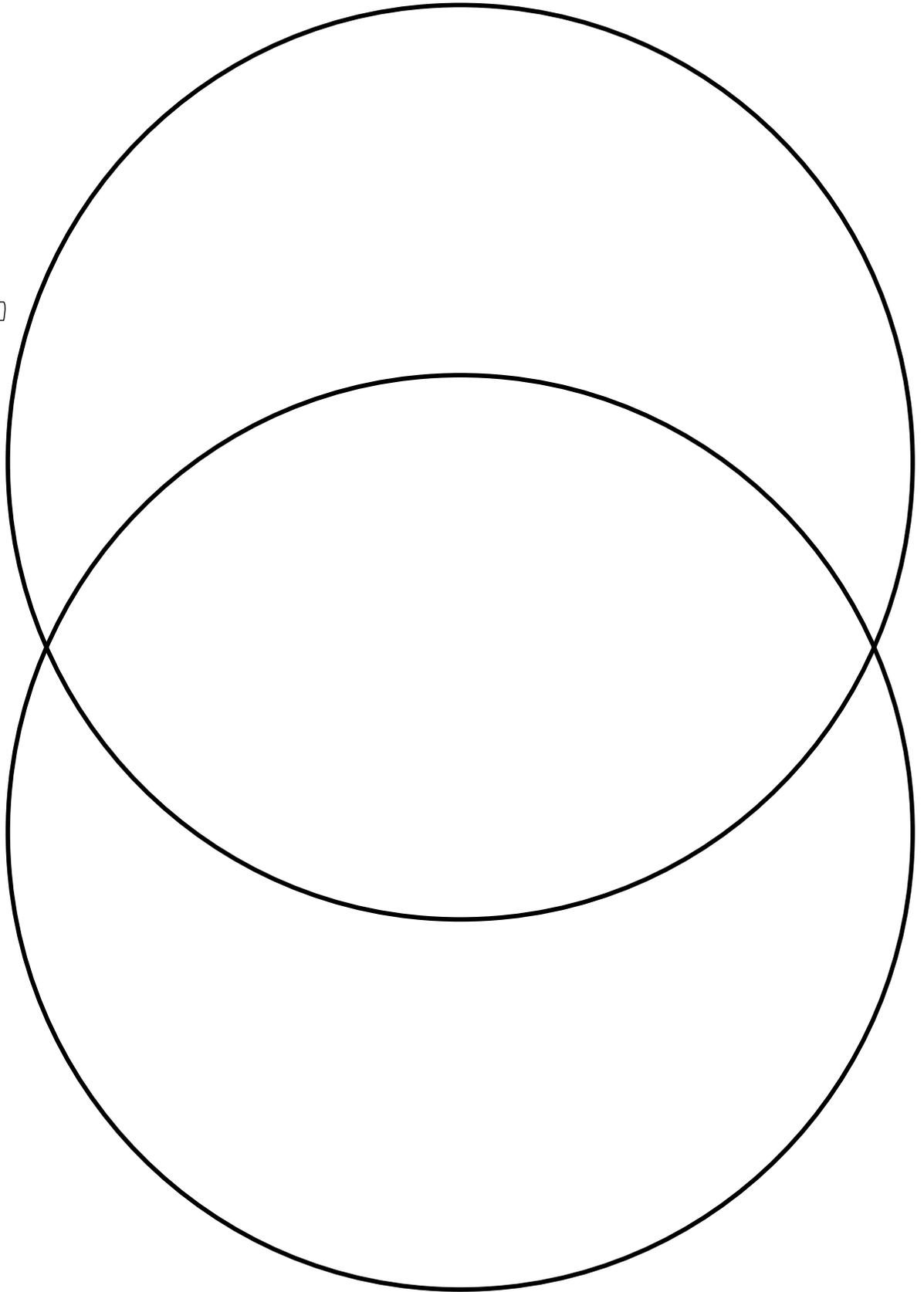




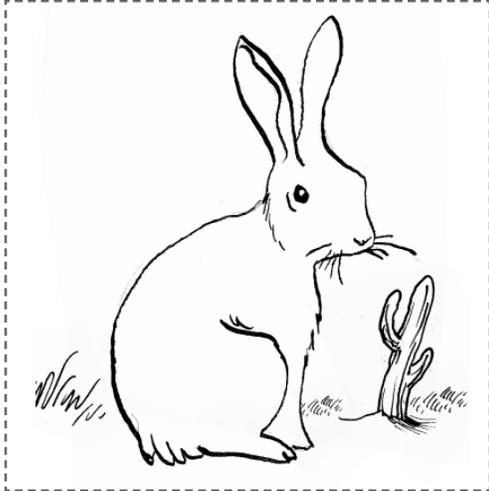
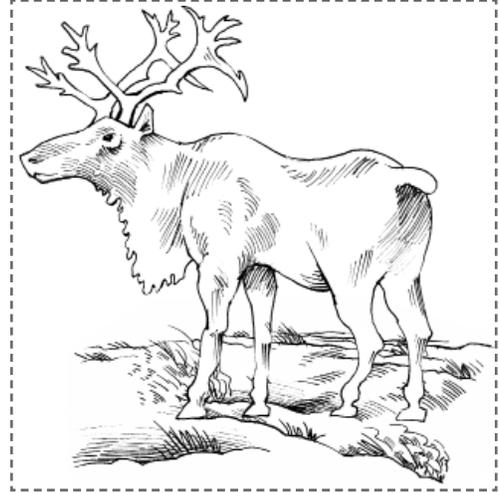
Desert



Arctic



Directions: Identify and name each animal on this worksheet. Think about what each animal eats and decide whether the animal is an herbivore, a carnivore, or an omnivore. Cut out the images of the animals and categorize them by the food they eat on the separate worksheet.



Name _____



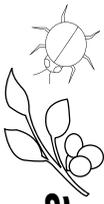
Omnivore



Carnivore



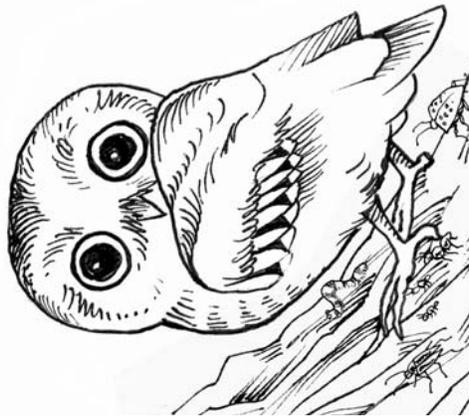
Herbivore



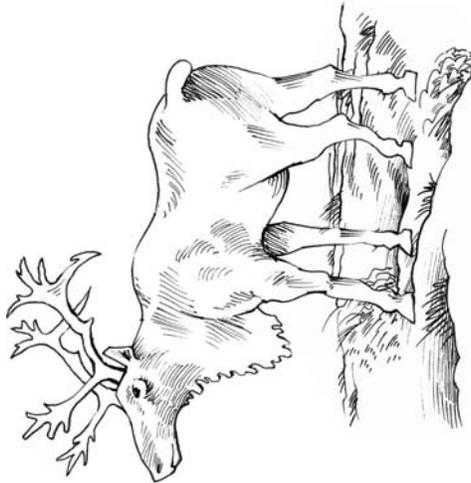
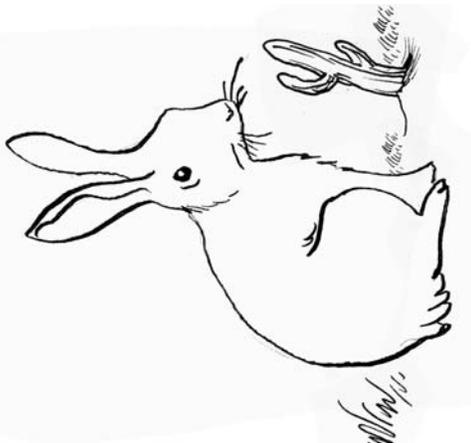
Omnivore



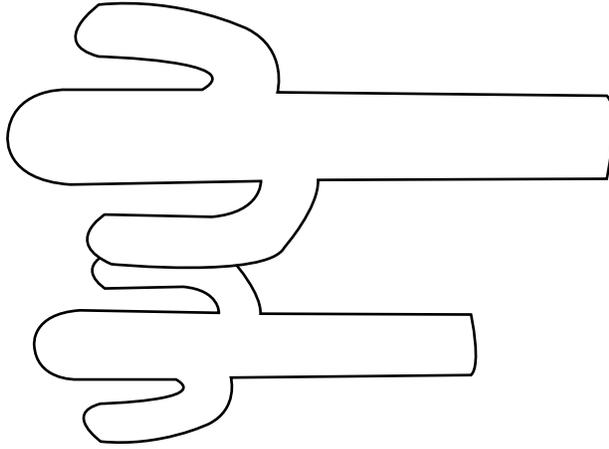
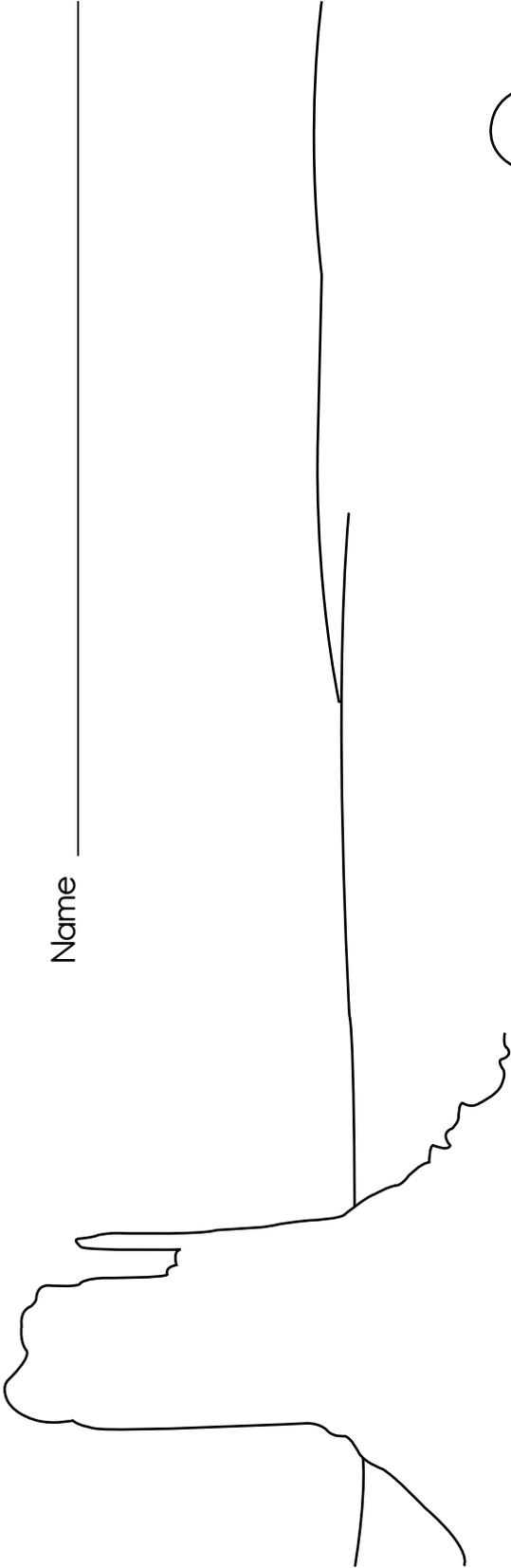
Carnivore



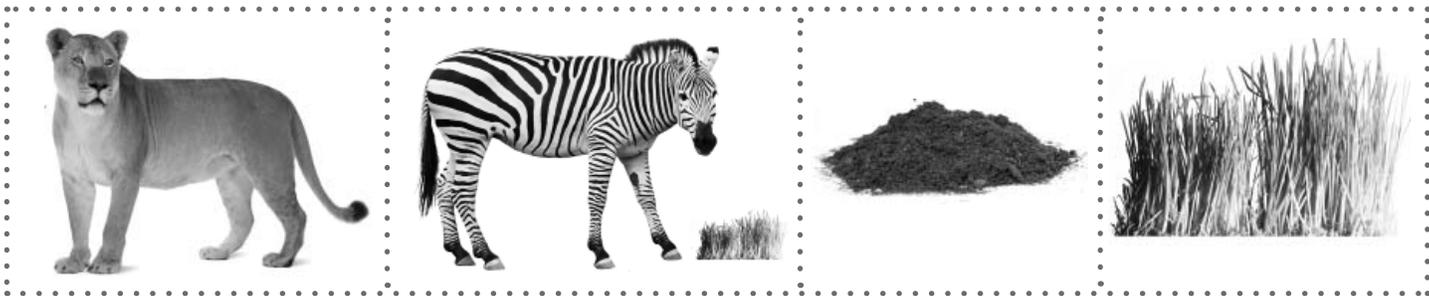
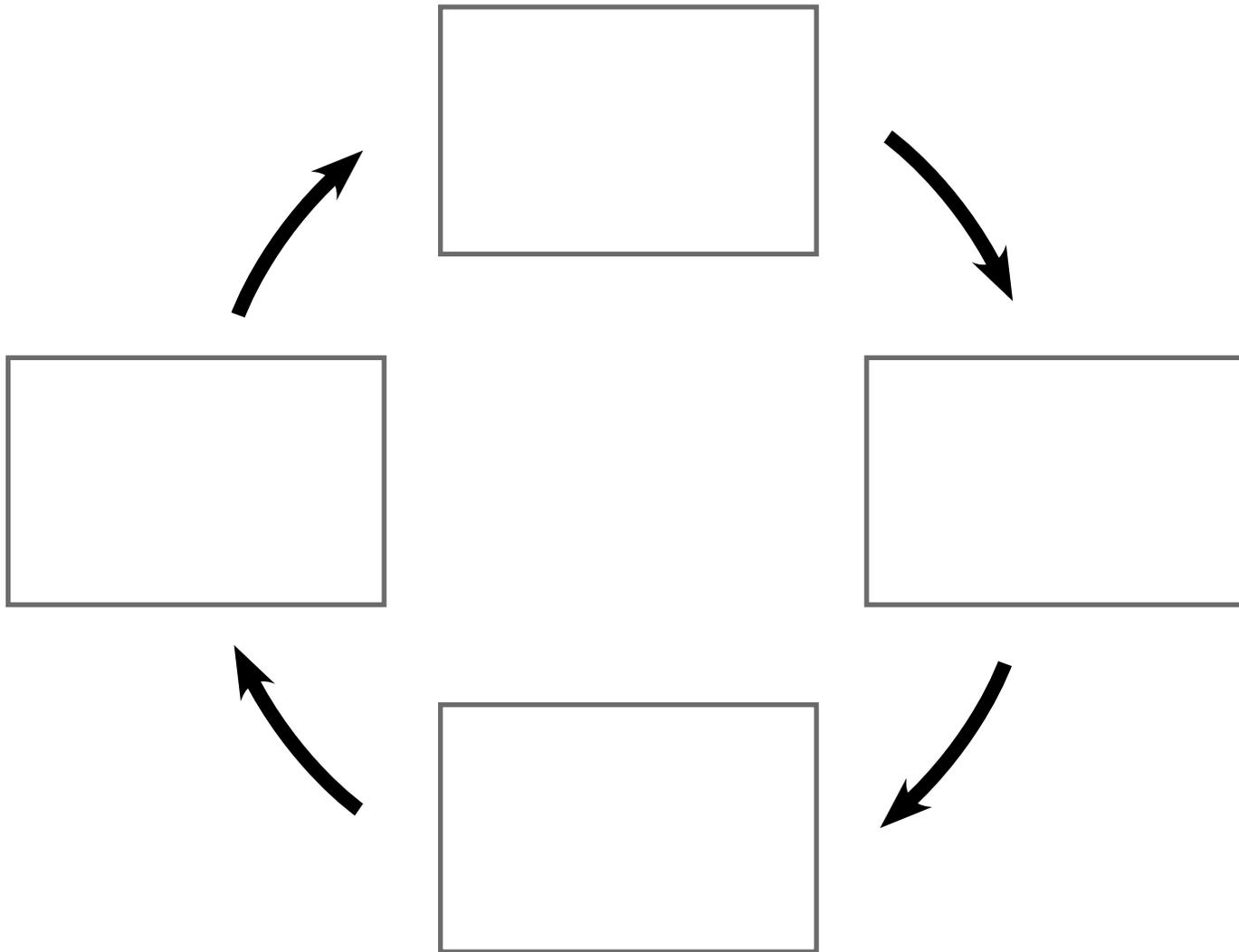
Herbivore

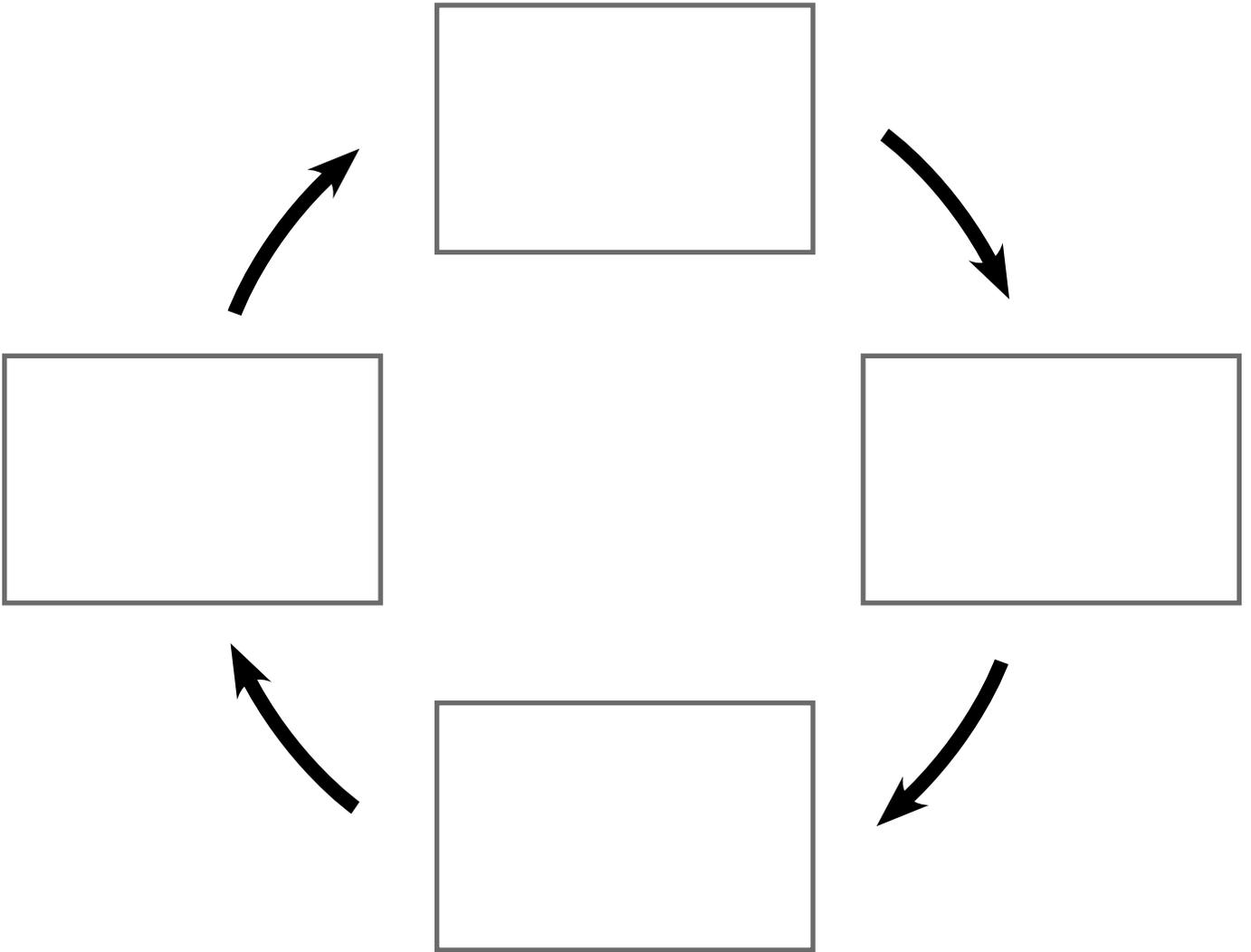


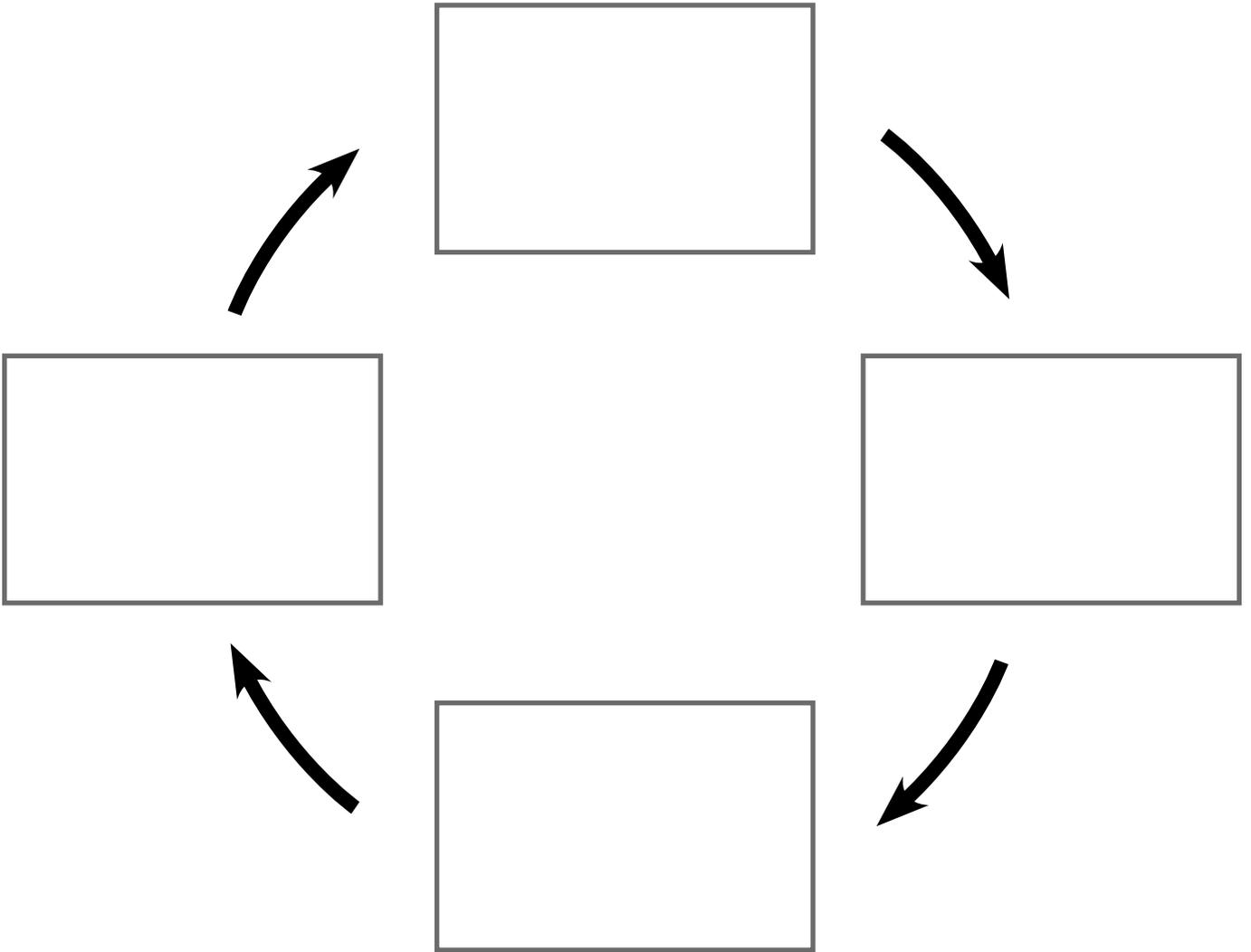
Name _____



2

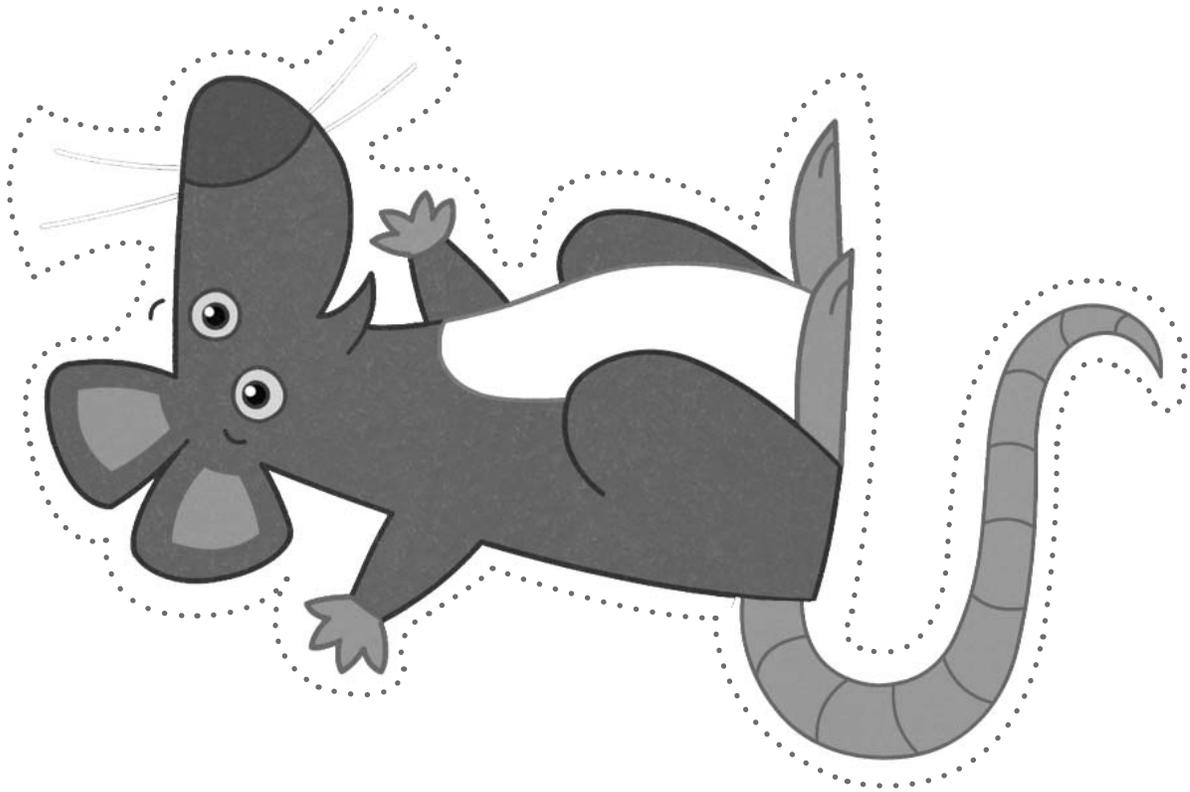
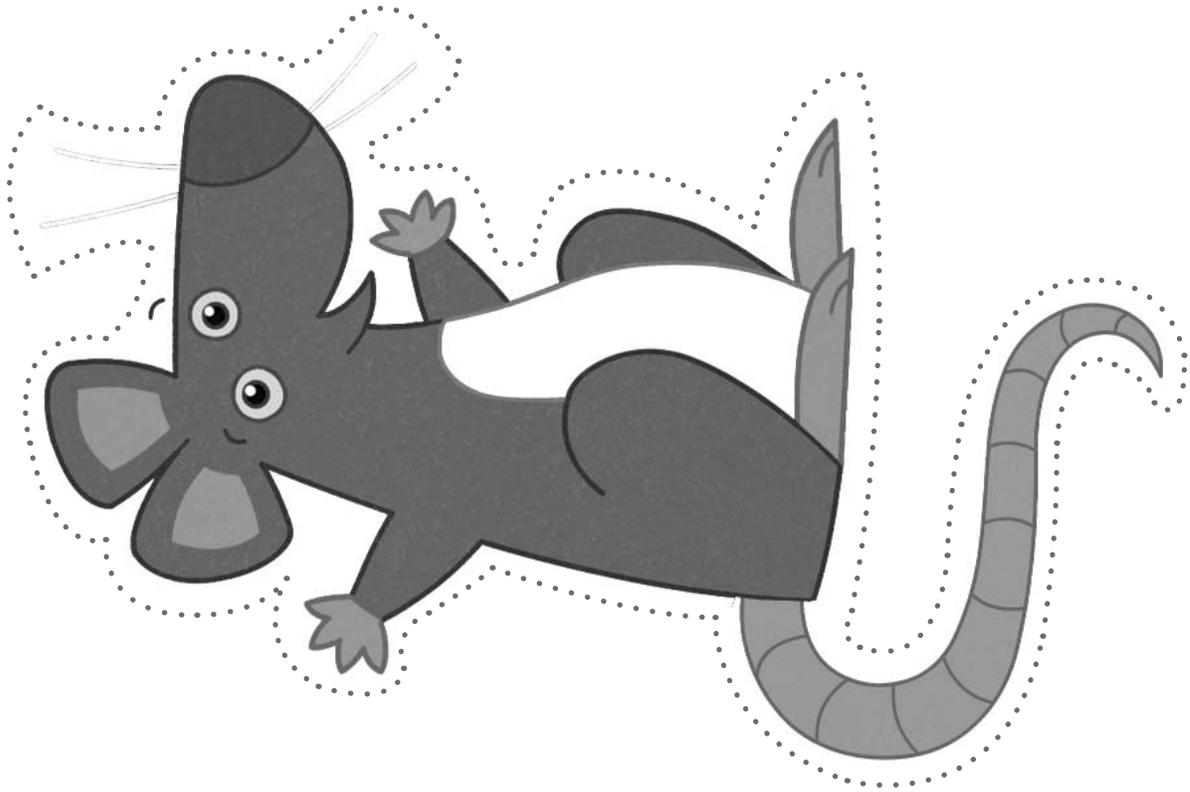






Name _____





Name _____



Directions: Circle the picture of the story your teacher's sentence is about.

1.



2.



3.



4.





5.

6.

7.

8.



1.

2.

3.

4.



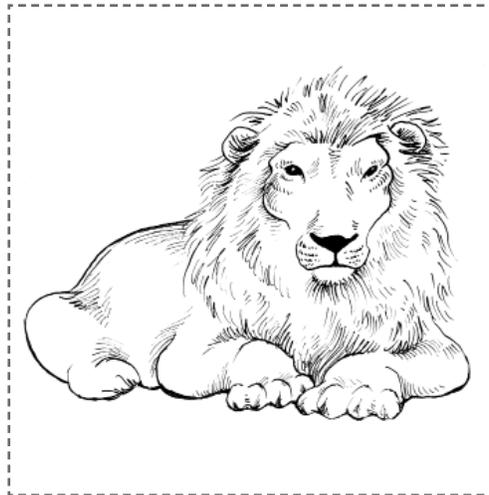
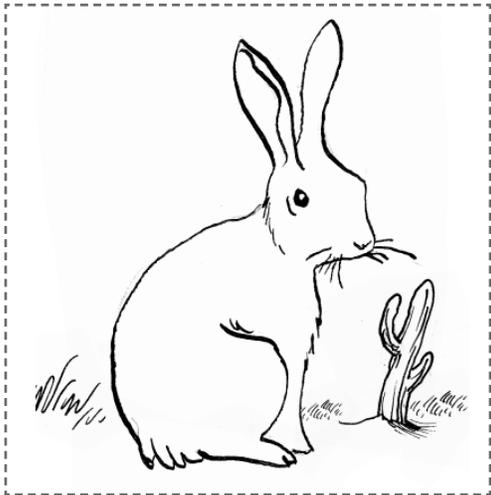
5.

6.

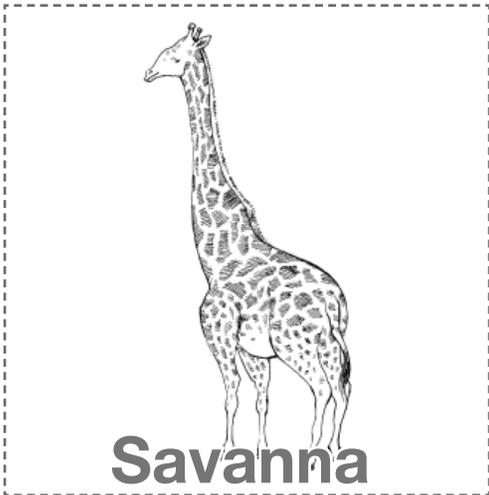
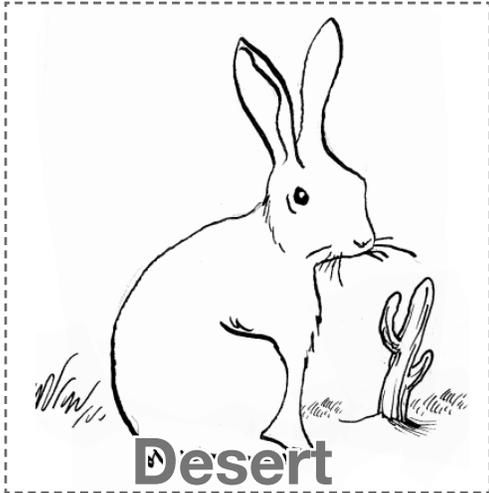
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8.

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.

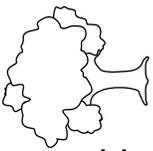


Directions: On one sheet of paper draw the Arctic habitat. On the second piece of paper draw the desert habitat. On the third sheet of paper draw the savanna habitat. Cut out the animals, and place them on the correct habitat.

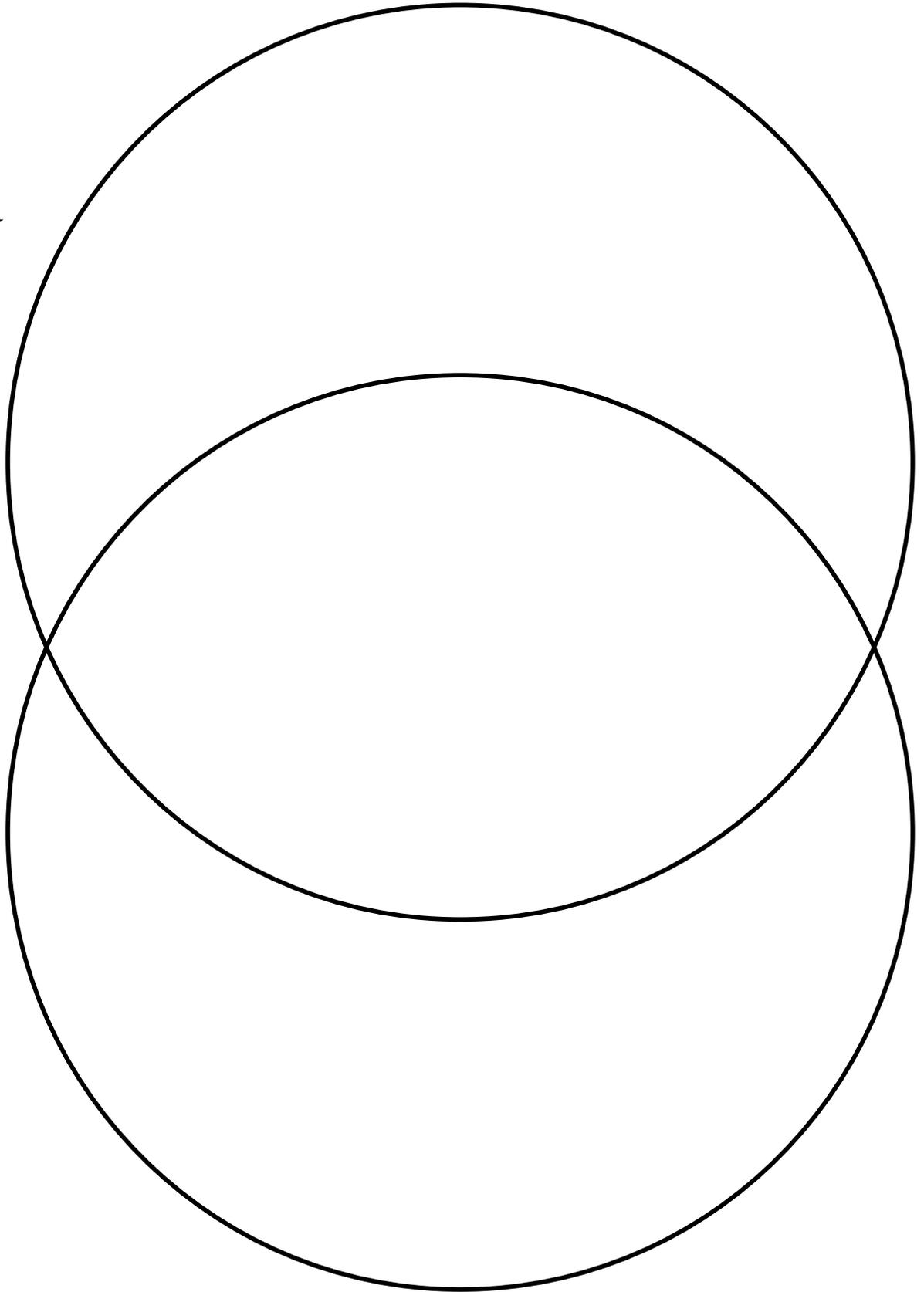




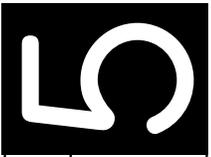
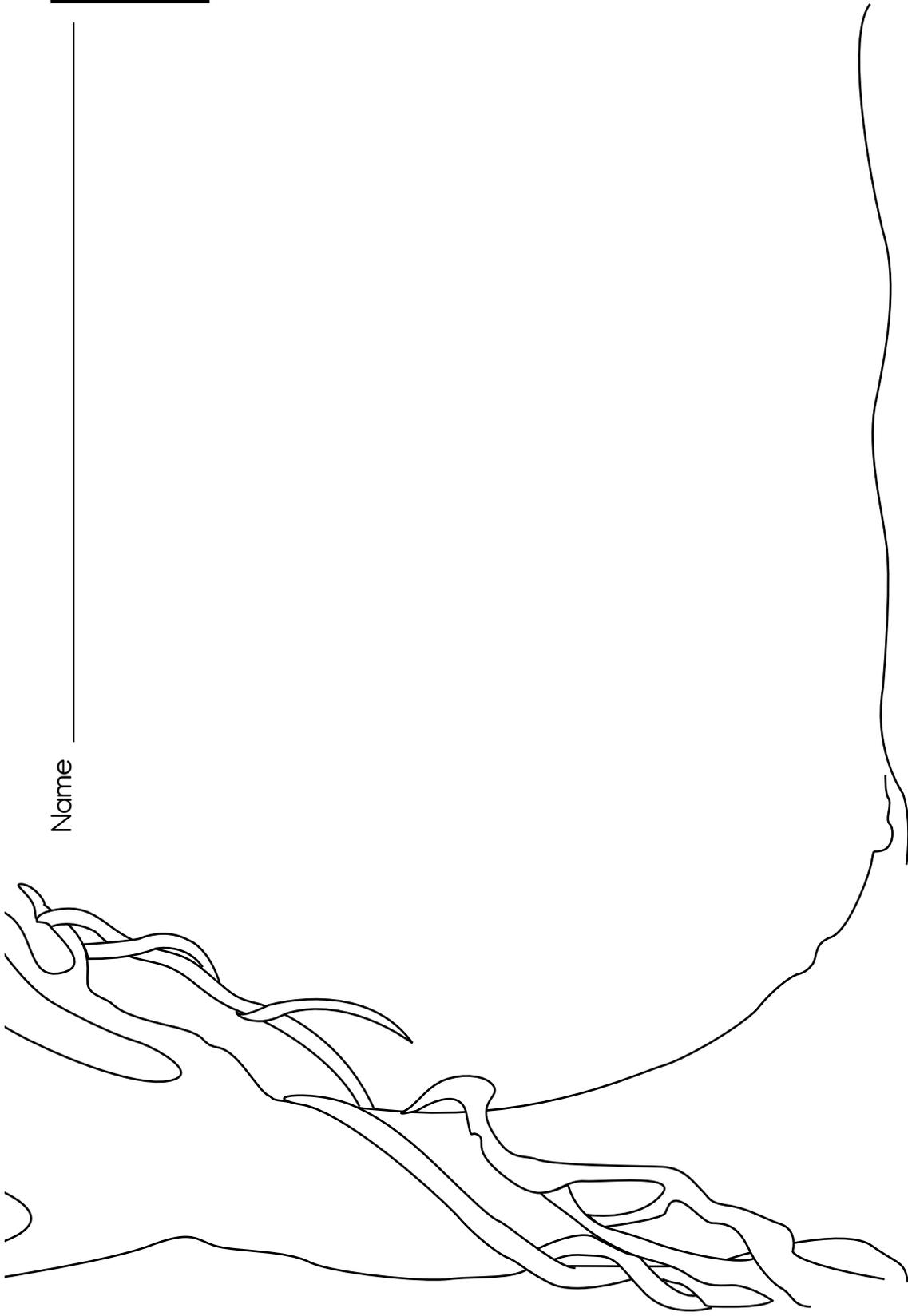
Rainforest



Forest



Name _____



A vertical writing area on the right side of the page, consisting of a solid top line, a dashed middle line, and a solid bottom line, providing a guide for handwriting practice.



Dear Family Member,

In the next few days, your child will learn about the rainforest habitat, the freshwater habitat (lakes and rivers), and the saltwater habitat (oceans). 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. Help Save the ____!

At the end of this domain, your child will learn about endangered species. Endangered species are animals that are almost extinct or have almost completely died out. Your child will learn that it is important to protect the habitats of endangered species. Have your child draw a picture of an endangered species s/he has learned about in class.

2. Name that Habitat

Your child will learn about the rainforest and saltwater habitats. Name a few items from one of these habitats (below), and see if your child can name that habitat.

Rainforest: Amazon, vines, kapok tree, toucan, macaw, squirrel monkey, boa constrictor, jaguar

Saltwater: ocean, coral reef, starfish, lobster, shark, blue whale



3. Sayings and Phrases: A Fish Out of Water

Your child will learn the saying “a fish out of water.” This saying describes how people might feel uncomfortable or a little strange in a new or different environment. Talk to your child about times s/he might have felt like a fish out of water and what s/he did to adapt to the situation.

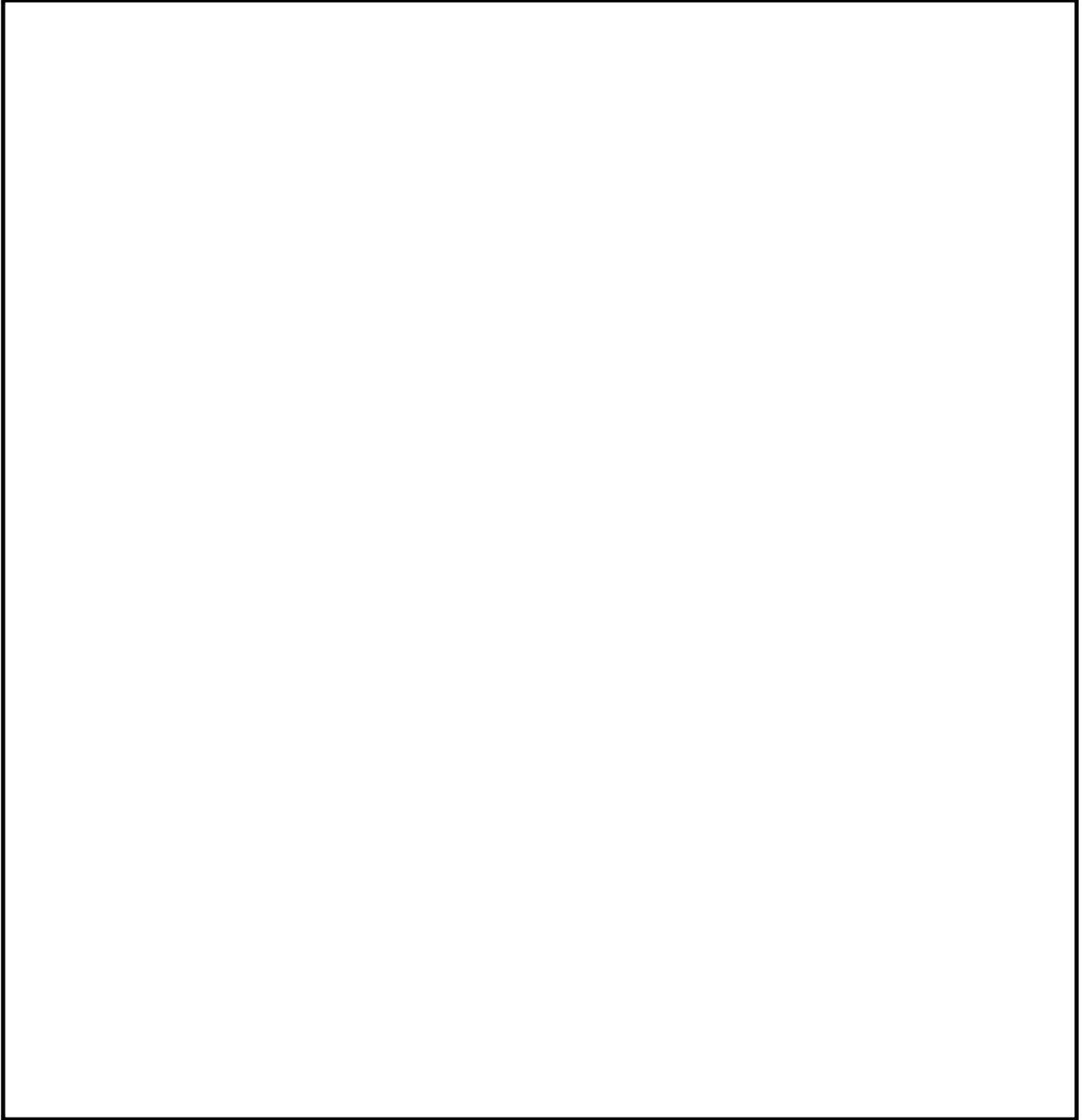


4. Read Aloud Each Day

Please continue to read to your child each day.

Be sure to let your child know how much you enjoy hearing about the different animals and habitats s/he has learned about at school.

ENDANGERED



Help save the _____ !



Vocabulary List for Animals and Habitats (Part 2)

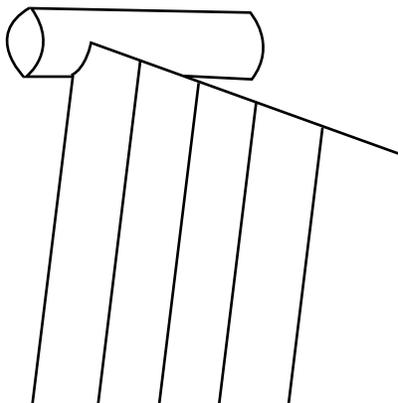
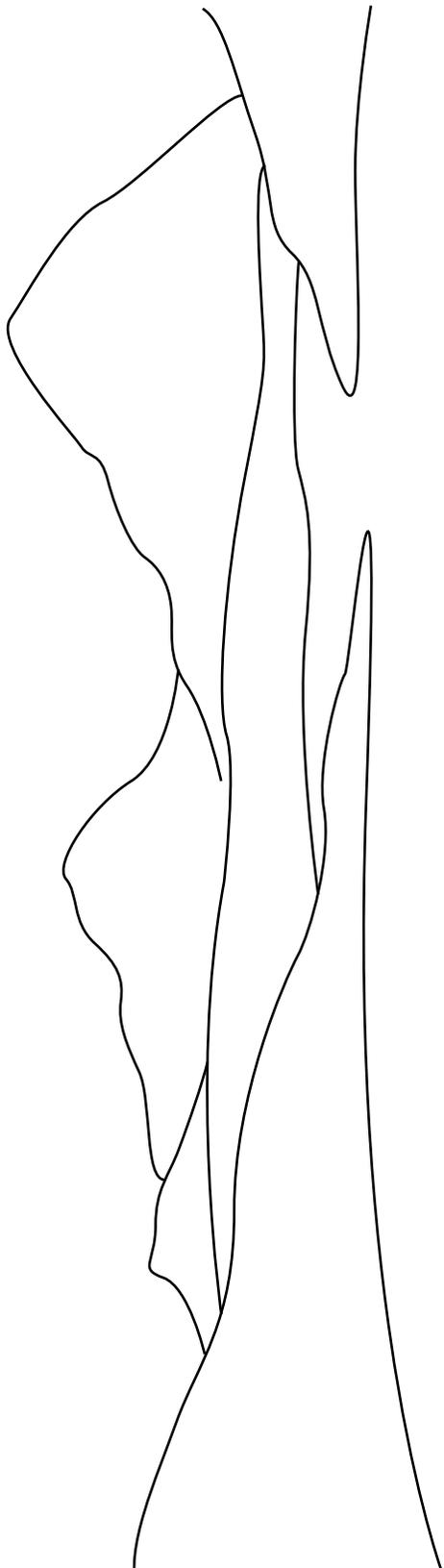
This list includes many important words your child will learn about in *Animals and Habitats*. Try to use these words with your child in English and in your native language. Next to this list are suggestions of fun ways your child can practice and use these words at home.

- canopy
- dense
- humid
- patterns
- amphibious
- float
- freshwater
- gills
- shallow
- slopes
- valleys
- destroy
- endanger
- endangered species
- extinction

Directions: Help your child pick a word from the vocabulary list. Then help your child choose an activity and do the activity with the word. Check off the box for the word. Try to practice a word a day in English and in your native language.

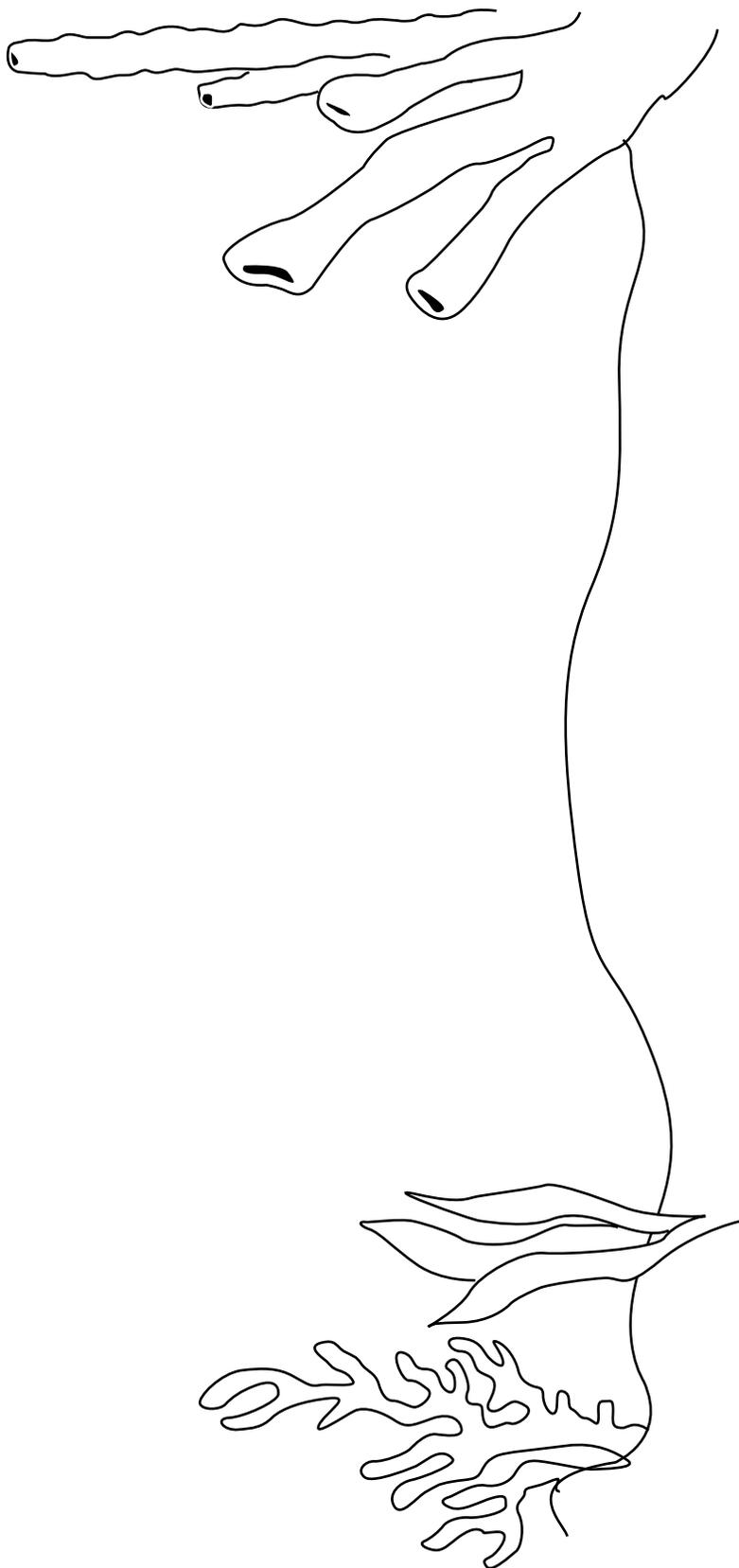
	Draw it
	Use it in a sentence
	Find one or two examples
	Tell a friend about it
	Act it out
	Make up a song using it

Name _____



b

Name _____



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

Directions: Listen to your teacher's instructions.



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

Directions: Listen to your teacher's instructions.

11. 



12. 



13. 



14. 



15. 



1.



2.



3.



4.



5.



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

6.



7.



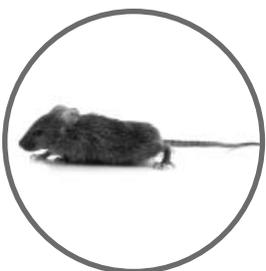
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1.



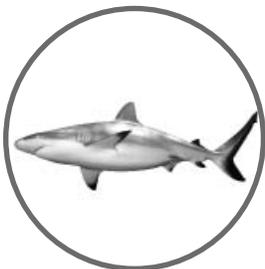
2.



3.



4.



5.



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

6.



7.

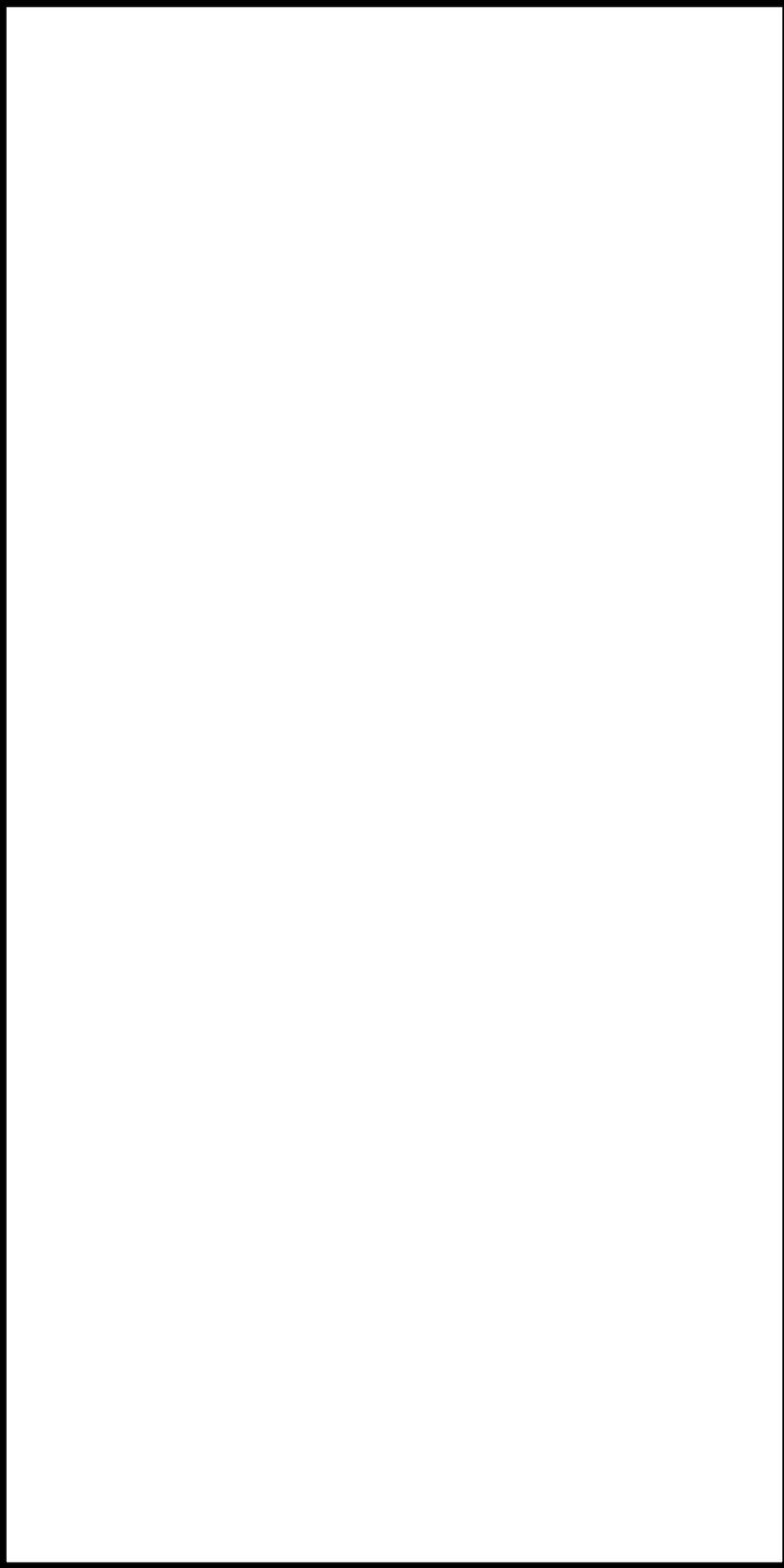


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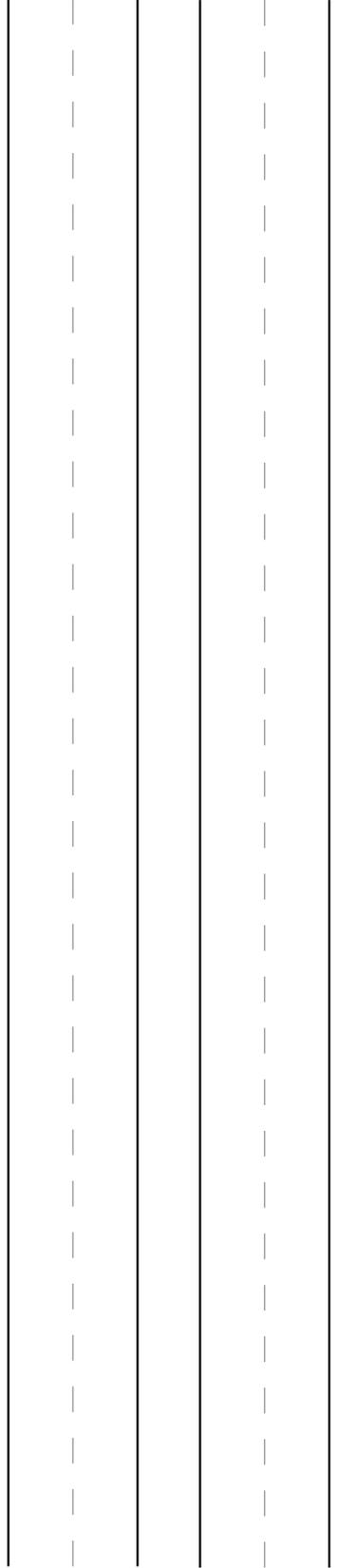


My Habitat Journal

DA-3



By _____



Tens Recording Chart

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

Name							

Tens Conversion Chart

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

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