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How to Use This Activity Guide

There are a wide variety of activities that teach or supplement all curricular areas. The activities are easily adapted up or down depending on the age and abilities of the children involved. And, it is easy to pick and choose what is appropriate for your setting and the time involved. Most activities can be done with an individual child or a group of children.

Glossary/Vocabulary words: Words may be written on index cards, a poster board, or on a chalkboard for a "word wall." If writing on poster board or chalkboard, you might want to sort words into nouns, verbs, etc. right away to save a step later if using for Silly Sentences. Leaving the words posted (even on a refrigerator at home) allows the children to see and think about them frequently. The glossary has some high-level words. Feel free to use only those words as fit your situation.

Silly Sentence Structure Activity: Game develops both an understanding of sentence structure and the science subject. Use words from the "word wall" to fill in the blanks. After completing silly sentences for fun, have children try to fill in the proper words by looking for the information in the book.

Sequence Sentence Strips: Cut into sentence strips, laminate if desired, and place in a "center." Have children put the events in order. Children may work alone or in small groups. Cards are in order but should be mixed up when cut apart.

Animal Card Games:

Sorting: Depending on the age of the children, have them sort cards by:

where the animals live (habitat) tail, no tail

number of legs (if the animals have legs) colors or skin patterns

how they move (walk, swim, jump, or fly) animal class

type of skin covering (hair/fur, feathers, scales, moist skin)

what they eat (plant eaters/herbivores, meat eaters/carnivores, both/omnivores)

Memory Card Game: Make two copies of each of the sorting card pages and cut out the cards. Mix them up and place them face down on a table. Taking turns, each player should turn over two cards so that everyone can see. If the cards match, he or she keeps the pair and takes another turn. If they do not match, the player should turn the cards back over and it is another player's turn. The player with the most pairs at the end of the game wins.

Who Am I? Copy and cut out the cards. Poke a hole through each one and tie onto a piece of yarn. Have each child put on a "card necklace" without looking at the animal pictured on it. The card hangs down the back. The children get to ask each person one "yes/no" question to try to guess their animals. If a child does not know the answer, they should say they don't know. This is a great group activity and a great "ice-breaker" for children who don't really know each other.

Charades: One child selects a card and must act out what the animal is so that the other children can guess. The actor may not speak but can move like the animal, can imitate body parts or behaviors. For very young children, you might let them make the animal sound. The child who guesses the animal becomes the next actor.

Math Card Games (Make four copies of the math cards to play these games):

Tens Make Friends Memory Game is a combination of a memory and adding game.

- · Play like the memory game, above.
- · If the animal numbers add up to 10, the child keeps the pair and takes another turn.
- · If they do not add up to ten, the player should turn the cards back over and it is another player's turn.

Go Fish for Fact Families is a twist on "Go Fish."

- · Shuffle cards and deal five cards to each player. Put the remaining cards face down in a draw pile.
- If the player has three cards that make a fact family, he/she places them on the table and recites the four facts related to the family. For example, if someone has a 2, 3, and 5, the facts are: 2 + 3 = 5, 3 + 2 = 5, 5 2 = 3. 5 3 = 2.
- The player then asks another player for a specific card rank. For example: "Sue, please give me a 6."
- · If the other player has the requested card, she must give the person her card.
- If the person asked doesn't have that card, he/she says, "Go fish."
- The player then draws the top card from the draw pile.
- · If he/she happens to draw the requested card, he/she shows it to the other players and can put the fact family on the table. Otherwise, play goes to the next person.
- · Play continues until either someone has no cards left in his/her hand or the draw pile runs out. The winner is the player who then has the most sets of fact families.

What Do Children Already Know?

Young children are naturally inquisitive and are sponges for information. The whole purpose of this activity is to help children verify the information they know (or think they know) and to get them thinking "beyond the box" about a particular subject.

Before reading the book, ask the children what they know about the subject. A list of suggested questions is below. The children should write down their "answers" (or adults for them if the children are not yet writing) on the chart found in Appendix A, index cards, or post-it notes.

Their answers should be placed on a "before reading" panel. If doing this as a group, you could use a bulletin board or even a blackboard. If doing this with individual children, you can use a plain manila folder with the front cover the "before reading" panel. Either way, you will need two more panels or sections—one called "correct answer" and the other "look for correct answer."

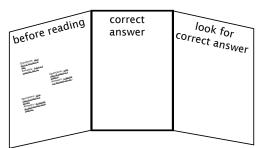
Do the children have any more questions about the subject? If so, write them down to see if they are answered in the book.

After reading the book, go back to the questions and answers and determine whether the children's answers were correct or not.

If the answer was correct, move that card to the "correct answer" panel. If the answer was incorrect, go back to the book to find the correct information.

If the child/children have more questions that were not answered, they should look them up.

When an answer has been found and corrected, the card can be moved to the "correct answer" panel.



Pre-Reading Questions

What is a habitat?

What do living things need in their habitat?

What are some non-living things that might be found in a habitat?

Can you name some different habitats found in North America?

Can all plants and all animals live in all habitats? Why or why not?

What are some plants and animals that live in meadows?

What are some plants and animals that live in a cave?

What are some plants and animals that live in a forest?

What are some plants and animals that live in by a river?

What are some plants and animals that live in or by a pond?

What are some plants and animals that live in desert?

What are some plants and animals that live on a mountain?

What are some plants and animals that live by the beach?

What are some plants and animals that live in the ocean?

Vocabulary Game

This activity is a very general idea and is designed to get children thinking of vocabulary words that will then be used as the beginning vocabulary list for a science lesson.

Select an illustration from the book and give the children a specific length of time (five minutes?) to write down all the words they can think of about the particular subject. If you do not have classroom sets of the book, it is helpful to project an illustration on a whiteboard. Check Web site (www. ArbordalePublishing.com) for book "previews" that may be used.

The children's word list should include anything and everything that comes to mind, including nouns, verbs, and adjectives. At the end of the time, have each child take turns reading a word from his/her list. If anyone else has the word, the reader does nothing. However, if the reader is the only one with the word, he/she should circle it. While reading the list, one person should write the word on a flashcard or large index card and post it on a bulletin board or wall.

At the end, the child with the most words circled "wins." And you have a start to your science vocabulary list. Note: if a child uses an incorrect word, this is a good time to explain the proper word or the proper usage.

Using the Words

The following activities may be done all at once or over a period of several days.

- · Continue to add words to the vocabulary list as children think of them.
- · Sort vocabulary words into nouns, verbs, adjectives, etc. and write what they are on the backs of the cards. When the cards are turned over, all you will see is "noun," etc. (these can then be used to create silly sentences on the next page).
- Now sort the vocabulary words into more specific categories. For example, nouns can be divided into plants, animals, rocks, minerals, etc. They can be divided into living/non-living, or into habitat-related words.
- · Have children create sentences using their vocabulary words. Each sentence could be written on a separate slip of paper.
- · Have children (individually or in small groups) sort and put sentences into informative paragraphs or a story.
- Edit and re-write paragraphs into one informative paper or a story.

Silly Sentence Structure Activity

Habitats are communities of plants, animals, and things that in in
certain locations.
Plants need and heat,, soil to grow, and a way for seeds to move.
Many mammals take in through their mouths or noses, while fish use
gills.
A has to find other animals living in its habitat to, which we call
prey.
Plants make their own from sunlight and nutrients in the soil that come
froming things that were once alive.
All of the plants and animals that are eaten by or that eat a particular animal
are part of that animal's
One habitat will have many different food chains that are linked together,
called a
Some animals in more than one habitat, such as the that that
might live in the desert and mountains.
All birds haves ands, but not all birds fly.

Word Search

Find the hidden words. Even non-reading children can match letters to letters to find the words! Easy—words go up to down or left to right (no diagonals). For older children, identify the coordinates of the first letter in each word (number, letter).

	Α	В	С	D	Е	F	G	Н		J
1	S	Ε	Α	W	Ε	E	D	G	Α	J
2	Р	Α	F	0	R	E	S	T	В	Ε
3	Ε	G		Ν	0	X	U	F	U	L
4	F	Ш	S	U	C	\	Y	Z	M	L
5	В	Ε	Α	V	Ε	R	Р	U	В	Y
6	Y	J	D	Н	Α	M	R	K	L	F
7	K		Q	L	Z	W	Ε	0	Ε	
8	C	R	Α	Υ	F		S	Η	В	S
9	В	X	T	C	Z	Q	S	R	Ε	Н
10	S	A	Ĺ	Α	M	Α	N	D	E	R

FOREST
OCEAN
SEAWEED
JELLYFISH
EAGLE
BUMBLEBEE
BEAVER
CRAYFISH
SALAMANDER
CYPRESS

Habitat Spy: Find in the Art

The illustrator drew all different kinds of plants and animals in each illustration. How many can you find?

How would you describe the habitat shown in the illustration?

What season do you think it is and why?

What are some of the non-living things you see in the habitat?

How do you think some of the plants or animals in the illustration might be using those non-living things?

Are any of the non-living things man made?

If so, how do those man-made objects change the habitat?

Is there water? If so, is it fresh or salty?

What do you think the climate is like? Is it dry like a desert or cold, windy, and snowy like a mountaintop? Does it rain (or snow) all year long or just during some months of the year?

What are some ways animals are helping plants?

What are some ways the anmals are using the plants?

Which habitat is similar to where you live?

Have you even been to any habitats like this? If so, when and why?

How close are some of these habitats to where you live?

How far are some of these habitats to where you live?

American lady butterfly

beagle

bumblebee

cardinal

chipmunk

goldfinch

oriole

rabbit

raccoon

robin

squirrel





bee
bluebird
cow
field mouse
field sparrow
goldenrod
grasshopper
house finch
milkweed
mole
painted lady butterfly
rabbit
red-tailed hawk

red-winged blackbird



beaver
bull frog
cattail
deer
dragonfy(ies)
goldfish
green heron
lilly pad and flower
mallard (duck)
painted turtle
red fox
swan
wood frog
yellow warbler



- 1. barred owl
- 2. black bear
- 3. blue jay
- 4. deer
- 5. downy woodpecker
- 6. great horned owl
- 7. millipede
- 8. porcupine
- 9. red fox
- 10. skunk
- 11. wild turkey
- 1. bald eagle
- 2. bank swallow
- 3. butterfly(ies)
- 4. coot
- 5. great blue heron
- 6. loon
- 7. moose
- 8. mudpuppy salamander
- 9. Northern water snake
- 10. opossum
- 11. river otter
- 12. water striders
- 13. river





- 1. alligator
- 2. apple snail
- 3. bobcat
- 4. crayfish
- 5. cypress fox squirrel
- 6. dragonfy(ies)
- 7. Easter kingbird
- 8. limpkin
- 9. muskrat
- 10. pig frog
- 11. swallow-tailed kite
- 12. wood stork
- 1. algae
- 2. cave centipede
- 3. cave cricket
- 4. cave spider
- 5. cave swallow
- 6. great horned owl
- 7. Mexican free-tailed bat





- 1. American bittern
- 2. beetle
- 3. black necked stilt
- 4. great egret
- 5. green frog
- 6. hungerford crawling water beetle
- 7. leaf beetle
- 8. lemmings
- 9. Northern waterthrush
- 10. osprey
- 11. pied billed grebe
- 12. spotted turtle
- 13. white tailed deer
- 14. 1yellow-bellied flycatchers
- 1. meadowlark
- 2. prairie chicken
- 3. prairie dog
- 4. pronghorn antelope
- 5. American bison
- 6. red admiral butterfly(ies)
- 7. red-spotted purple butterfly(ies)
- 8. hoary comma butterfly(ies)
- 9. monarch butterfly(ies)
- 10. Old World swallowtail butterfly(ies)
- 11. checkered white butterfl(ies)
- 12. hacklberry butterfy(ies)
- 13. downy gentian
- 14. downy phlox
- 15. false cream indigo
- 16. indigo bunting
- 17. milkweed





- 1. bald eagle
- 2. bighorn sheep
- 3. elk
- 4. golden eagle
- 5. midges on snow
- 6. mountain lion
- 7. snowshoe hare
- 8. Stellar's jay
- 9. wolves
- 10. yellow-bellied marmot



- 1. badger
- 2. cactus wren
- 3. collared peccary
- 4. coyote
- 5. desert hairy scorpion
- 6. diamondback rattlesnake
- 7. elf owl
- 8. gambel quail
- 9. gila monster
- 10. greater roadrunner
- 11. grey fox
- 12. kangaroo rat



- 1. black oystercatcher
- 2. brown pelican
- 3. California mussel clusters
- 4. California purple sea urchin
- 5. elephant seal
- 6. gooseneck barnacle clusters
- 7. hermit crab
- 8. ring-billed gull
- 9. sea lemon
- 10. seastar
- 11. shore crab
- 12. snowy plover
- 13. sea anemone
- 14. periwinkle snails



- 1. bat star
- 2. bottlenose dolphin
- 3. common dolphin
- 4. common market squid
- 5. cross jellyfish
- 6. garibaldi fish
- 7. giant kelpfish
- 8. grey whale
- 9. harbor seal
- 10. kelp bass
- 11. leopard shark
- 12. pelagic cormorant
- 13. sea nettle jellyfish
- 14. sea otter
- 15. western gull
- 16. herring



Edible Sorting and Classifying Activity

Gather a cup of edible "sorting items." For example:

- · As many different kinds of M&Ms as you can find
- · Chocolate & peanut butter chips
- · Hershey Kisses
- · Peanuts or other type of nuts



Ask the children to sort the items into groups. There is no right and wrong, only what makes sense to the child. When finished, ask the child:

What feature or attribute (color, size, ingredient, etc.) did you use to sort the items?

- · Are there some items that fit more than one group or don't fit any group?
- Is it easy to sort or were there some items that were a little confusing?

If more than one person did this, did everyone sort by the same attribute? To extend the learning, graph the attributes used to sort the items (blank graph below).

Graph the attributes that children used to sort their items.

What was the most common attribute (size, shape, color, etc.) used?

	10		
	9		
	8		
	7		
	6		
	5		
	4		
	3		
	2		
	1		
attri	bute		

Classifying Animals

Just as we sort candy, scientists sort all living things into groups to help us understand and connect how things relate to each other. Scientists ask questions to help them sort or classify animals.

Based on the answers to the questions, scientists can sort the living organisms. The first sort is into a Kingdom. There are five commonly accepted Kingdoms: Monera, Protista, Fungi, Plantae, and Animalia. All of the living things in this book belong to Animalia or the Animal Kingdom.

The next big sort is into a Phylum. One of the first questions that a scientist will ask is whether the animal has (or had at some point in its life) a backbone. If the answer is "yes," the animal is a vertebrate. If the answer is "no," the animal is an invertebrate.

Each Phylum is broken down into Classes, like mammals, birds, reptiles, fish, insects, or gastropods (snails). Then each class can be broken down even further into orders, families, genus and species, getting more specific.

The scientific name is generally in Latin or Greek and is the living thing's genus and species. People all over the world use the scientific names, no matter what language they speak. Most living organisms also have a common name that we use in our own language.

Some questions scientists ask:

- · Does it have a backbone?
- · What type of skin covering does it have?
- · Does it have a skeleton? If so, is it inside or outside of the body?
- · How many body parts does the animal have?
- Does it get oxygen from the air through lungs or from the water through gills?
- · Are the babies born alive or do they hatch from eggs?
- · Does the baby drink milk from its mother?
- · Is it warm-blooded or cold-blooded?

Using what you know, and information and pictures in the book, see how many Animal Chart squares you can fill in for each animal.

Animal Chart

	Animals	Has May and
	legs (how many) flippers/fins	
	wings	
_	tail/no tail	
	horns/antlers	
	claws	
Feet or hands: if they	web	
have; may have more	toes	
than one	opposable thumbs/toes	
	hooves	
	walks/runs	
	crawls	
	flies	
	slithers	
	swims	
	climbs	
	hops	
	backbone/vertebrate	
Backbone	no backbone/invertebrate	
	inside skeleton (endoskeleton)	
	outside skeleton (exoskeleton)	
	no skeleton	
	hair/fur/whiskers/quills	
	feathers	
	dry scales or bony plates	
Body covering	moist scales	
	smooth, moist skin	
	hard outer shell	
	hard outer covering	
	stripes or spots	
	mostly one color	
Color/patterns	skin color changes	
	bright, vivid colors	
Coto overen	lungs	
	gills	
	warm-blooded (endothermic)	
Body temperature	cold-blooded (ectothermic) born alive	
Babies		
	hatch from eggs born alive or hatch from eggs	
	complete	
Metamorphosis	incomplete	
	none	
	sharp	
	flat	
16601	no teeth (bill/beak)	
	plant eater (herbivore)	
Food	meat eater (carnivore)	
1000	both (omnivore)	
	טטנוו (טוווווויטוב)	

	Animals	
Appendages	Legs (how many) flippers/fins wings tail/no tail	
Feet or hands: if they	horns/antlers claws	
have, may have more than one		
Marramantamarria	walks/runs crawls flies	
Movement: may have more than one	swims climbs hops	
Backbone	backbone/vertebrate no backbone/invertebrate inside skeleton (endoskeleton)	
Skeleton	outside skeleton (exoskeleton) no skeleton	
Body covering	hair/fur/whiskers/quills feathers dry scales or bony plates moist scales smooth, moist skin hard outer shell hard outer covering	
Color/patterns	stripes or spots mostly one color skin color changes bright, vivid colors	
Gets oxygen	lungs gills	
Body Temperature	warm-blooded (endothermic) cold-blooded (ectothermic) born alive	
Babies	hatch from eggs born alive or hatch from eggs	
Metamorphis?	complete incomplete none	
Teeth	sharp flat no teeth (bill/beak)	
Food	plant eaters (herbivore) meat eather (carnivore) both (omnivore)	

	Animals	
Appendages	Legs (how many) flippers/fins wings tail/no tail horns/antlers	
Feet or hands: if they have, may have more than one	claws web	
Movement: may have more than one	swims climbs hops	
Backbone	backbone/vertebrate no backbone/invertebrate	
Skeleton	inside skeleton (endoskeleton) outside skeleton (exoskeleton) no skeleton	
Body covering	hair/fur/whiskers/quills feathers dry scales or bony plates moist scales smooth, moist skin hard outer shell hard outer covering	
Color/patterns	stripes or spots mostly one color skin color changes bright, vivid colors	
Gets oxygen	lungs gills	
Body Temperature	warm-blooded (endothermic) cold-blooded (ectothermic) born alive	
Babies	hatch from eggs born alive or hatch from eggs	
Metamorphis?	complete incomplete none	
Teeth	sharp flat no teeth (bill/beak)	
Food	plant eaters (herbivore) meat eather (carnivore) both (omnivore)	

Vertebrate Classes

Mammals:

hair, fur, whiskers, or guills at some point during their lives backbone (vertebrate) inside skeleton (endoskeleton) lungs to breathe most give birth to live young produce milk to feed young warm-blooded

Birds:

feathers backbone (vertebrate) inside skeleton (endoskeleton) lungs to breathe hatch from hard-shelled eggs warm-blooded

Warm-blooded animals make their own heat and have a constant body _{temperature}

Reptiles:

dry scales or plates backbone (vertebrate) inside skeleton (endoskeleton); most turtles also have a hard outer shell lungs to breathe most hatch from leathery eggs cold-blooded

Cold-blooded animals' body temperature comes from their surroundings

Fish:

most have scales covered with a thin layer of slime backbone (vertebrate) inside skeleton (endoskeleton) gills to breathe babies are either born alive or hatch from jellylike eggs cold-blooded

Amphibians:

soft, moist skin backbone (vertebrate) inside skeleton (endoskeleton) most hatchlings (jellylike eggs) are called larvae or tadpoles and live in water, using gills to breathe as they grow, they develop legs and lungs and move onto land cold-blooded

Using the sorting cards, sort the animals into their class.

Common Invertebrates

Arthropods: Insects:

hard outer covering no backbone (invertebrate) outside skeleton (exoskeleton)

adults have 3 body parts: head, thorax & abdomen

mouthparts adapted for chewing, biting, sucking and lapping breathe through trachae

compound eyes

3 pairs of legs

usually 2 pairs of wings and 1 pair of antennae

most hatch from eggs

metamorphosis: none, incomplete, or complete cold-blooded

Mollusks Bi-valves:

have a two-part shell with a hinge to open/close
no backbone (invertebrate)
outside skeleton (exoskeleton)
hatch from eggs
cold-blooded
marine and freshwater
symetry:

Mollusks Gastropods (Snails):

most have hard shells
no backbone (invertebrate)
outside skeleton (exoskeleton)
hatch from eggs
cold-blooded

Anthropod Arachnia (Spiders):

no backbone
one or two body segments
pincers or fangs near moutyh
4 pairs of legs
no antennae

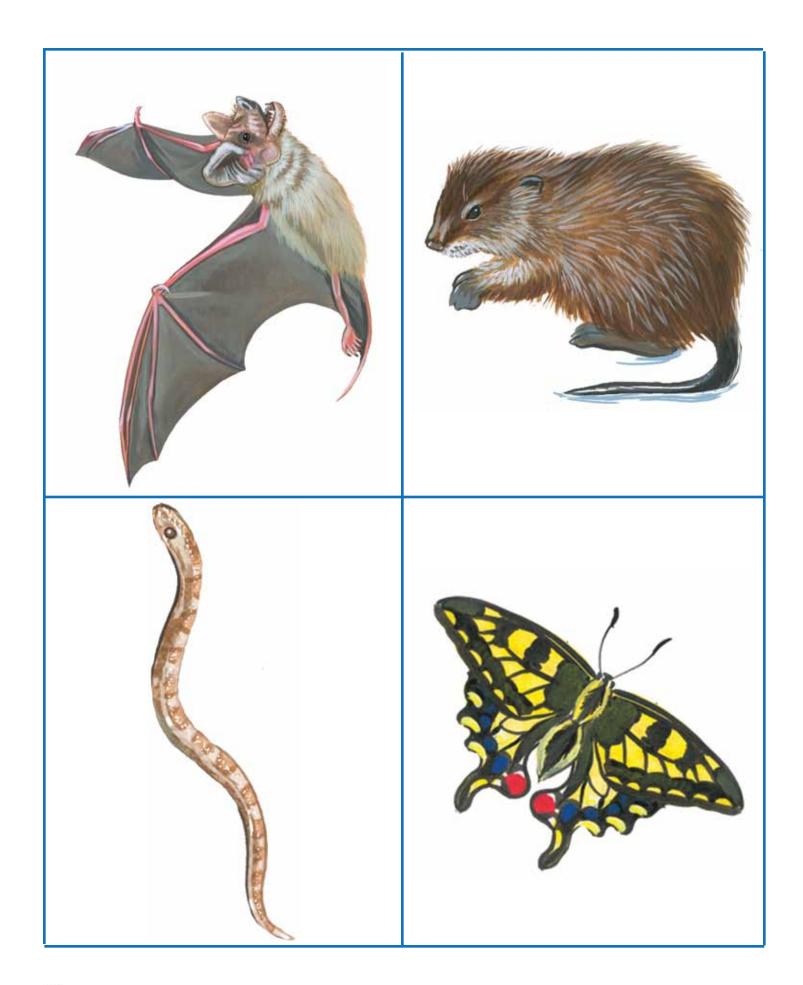
Arthropod Crustaceans (Crabs):

hard outer covering
no backbone (invertebrate)
outside skeleton (exoskeleton)
mouthparts adapted for chewing
5 or more pairs of legs
claws
2 pairs of anntenae
2 compound eyes on stalks
adults have 2 or 3 body segments

hatch from eggs

Animal Sorting Cards







Adaptations

Adaptations help animals to live in their habitat: to get food and water, to protect themselves from predators, to survive weather, and even to help them make their homes. Here are a few different types of adaptations.

Physical Adaptations

body parts

teeth—depends on type of food eaten feet, flippers, fins—ability to move placement of eyes

gills, lungs, or other—how does the animal get oxygen

ears—or how the animal hears/senses

body coverings

hair or fur feathers scales

moist skin

camouflage and protection

color of skin or pattern to blend into background mimicry: pretending to be something else to fool predators poisinous or stinky smells

Behavioral Adaptations

instinct: behaviors or traits that the animals are born with learned behavior: traits that animals learn to improve their chances of survival or to make their life easier

social groups versus solitary living communication with other animals defense/camouflage

reaction to cycles (day/night, seasons, tides, etc.)

migration: the seasonal movement of animals from one location to another hibernation: a long, deep sleep in which the animal's breathing and heartbeat are slower than usual

Pick an animal from the book and answer the following questions:	
My animal is:	

Where (in what kind of habitat) does your animal live?	What is one of its physical adaptations and how does it help the animal live in its environment?
What is another of its physical adaptations and how does it help the animal live in its environment?	What is another of its physical adaptations and how does it help the animal live in its environment?

What behavioral adaptations (if any) were mentioned in the story?

Match the Habitats

Match the habitat to its description, some of the plants and animals you might find there, and the adaptations living things might need to live there.



This habitat can be hot or cold but it is always dry. Many plant and animal bodies store water so they don't have to drink every day. Many animals that live in this hot habitat stay out of the sun during the day and are active at night when it is cooler.

- This small, grassy field can be found inside other, larger habitats (mountains, forest) or next to rivers, ponds, or even your backyard. The soil is usually moist and you'll find lots of plant-eating animals.
- The ocean meets the land in this habitat. It's a hard place to live because sandy land moves around; depending on the tide, it can be under water or dry; it can be very windy; and the water is salty.
- This moving body of freshwater usually starts at a "headwater" in the mountains and travels all the way to an ocean. It is usually narrow and fast moving at the start but as it approaches the ocean, it gets wider and moves more slowly.
- This habitat goes by other names too (prairie, savanna, grassland, steppe, or pampas). The most common plant is grass and there aren't many trees. Large planteating mammals can be found here.

Living Things: True or False?

All living things have some characteristics in common and need certain, basic things to survive. read the following statements about living things and circle whether you think each one is true or false.

- 1. T/F All living things need a safe place to live.
- 2. T/F All living things need a safe place to raise their young.
- 3. T/F All living things can easily move from one place to another.
- 4. T/F Living things can survive in any habitat.
- 5. T/F Non-living things (rocks, soil, water) in a habitat can never move.
- 6. T/F An animal's habitat is made up of the plants and other animals in its food chain.
- 7. T/F All living things get all of their basic needs met in their own habitat.
- 8. T/F Habitats can't change.
- 9. T/F All animals breathe air.
- 10. T/F All living things eat plants or animals to get energy (food).
- 11. T/F A food chain includes all of the plants and animals found in a habitat.
- 12. T/F All living things have a life cycle that includes being born or sprouting, growing, reproducing, and eventually dying. The basic needs for the living thing at each stage of its life cycle are met in its habitat.

Science Journal

Habitat				
my definition	my drawing			

Adaptations			
my definition	my drawing		

Food Web			
my definition	my drawing		
,			

Photosynthesis				
my definition	my drawing			

Nature Journal

Animals are busy around you at different times of the day or year.

Do different animals show up in your backyard at different times of day? Go in your backyard (or school playground) at different times of the day (morning, noon, evening and night) and write down the animals you see. Are they the same or different? What changes there during the day that might cause different animals to come out at different times (such as light or temperature)?

Keep a journal with the following information

- · Where are you?
- · What time of day is it?
- What is the weather? (clear/rainy/cloudy or hot/cold)
- · What animals do you see?
- · What are they doing?

Those are the animals that you can see. Are there animals that you can hear but can't see?

- · What type of sounds do you hear?
- · What type of animal do you think makes the sound?
- · Is it one animal or many animals?

Do you think you would see the same animal at the same place and time tomorrow?

Do you see any "signs" that animals have been there?

- Feathers or bones?
- Tracks or footprints?
- · Scat (poop?)
- · Scratches or claw marks on trees?
- · Partially eaten plants (leaves, nuts, pinecones) or other animals?
- Signs of nests or homes?

Animals All Around You

Animals are busy around you at different times of the day or year. Make a list of some of the animals you might see around your (or a friend's) house or school. Even if you live in an urban area, keep your eyes open and you might be surprised at how many animals you might see!

Pets:			
Wild Birds:			
Insects (including	flies, butterflies,	 etc.)	
Wild Reptiles (snak	es, lizards, turtle		

Spiders, worms, slugs
Wild Mammals (raccoons, deer, etc)
Of those animals listed, which ones fall into the following categories: Animals with four legs:
Animals that fly:
Animals with feathers:

Animals with fur:	
Animals with wings:	
Animals that walk on two feet:	
Animals that slither or slide:	
Animals that swim:	

Map Activity

Using these maps as a reference, color the areas where these birds live on the blank map (in appendix).

Which birds live in the same area as you?

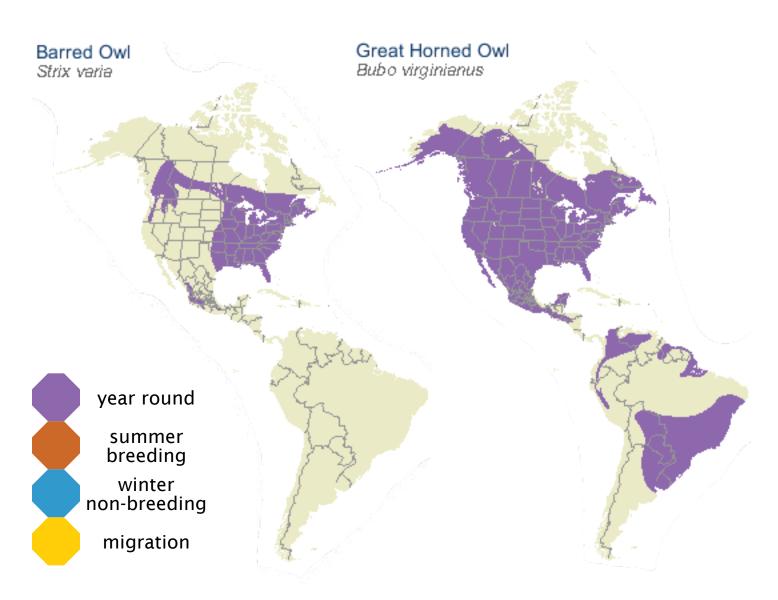
Which bird has the smallest range and distribution?

Which birds have the biggest range and distribution?

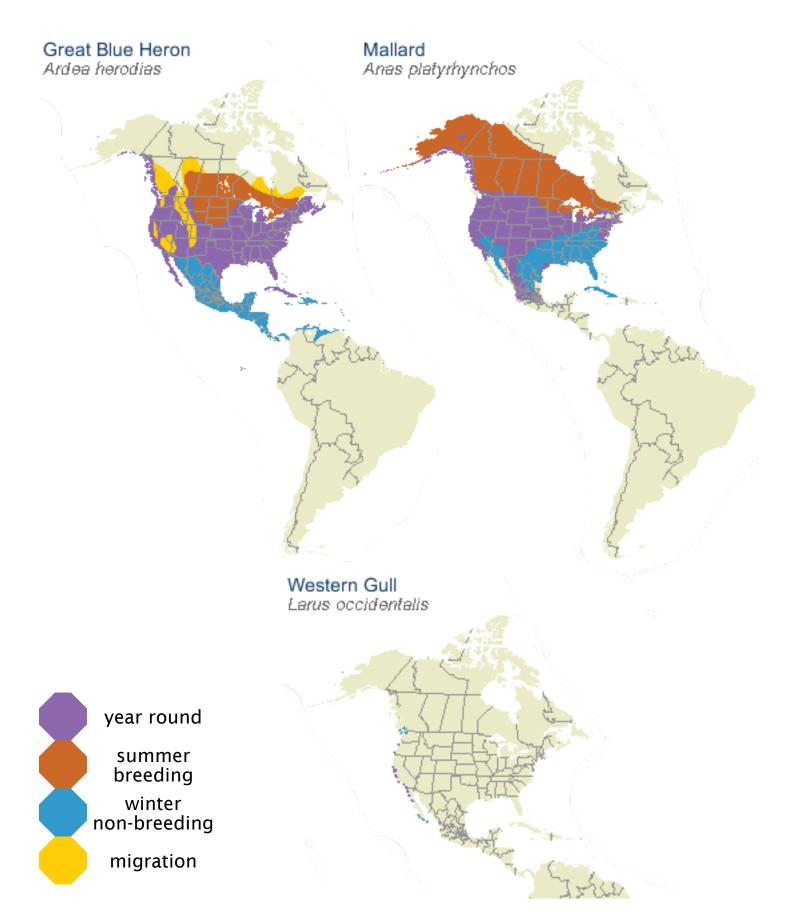
By looking at the maps, can you tell which birds migrate and which don't?

Thanks to Cornell Lab of Orthinology's All About Birds for the maps:

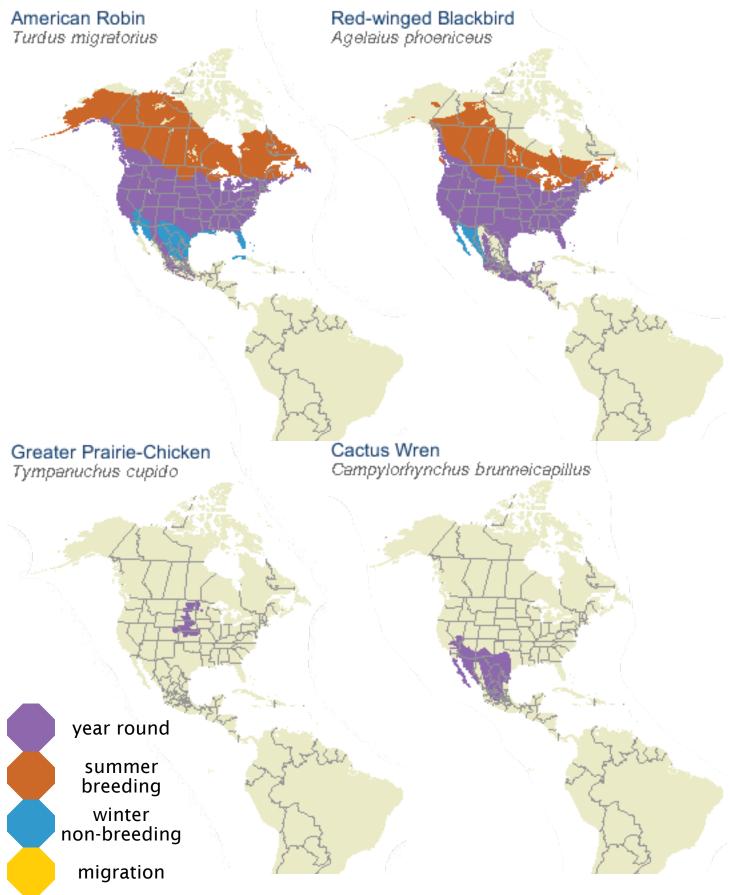
www.allaboutbirds.org.



Thanks to Cornell Lab of Orthinology's All About Birds for the maps: www.allaboutbirds.org.

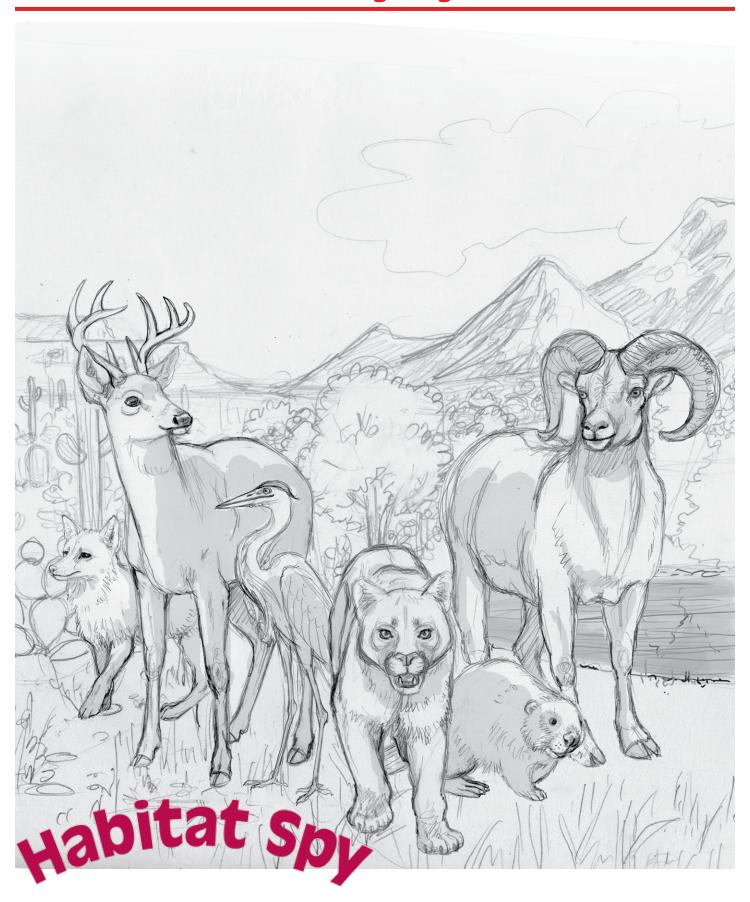


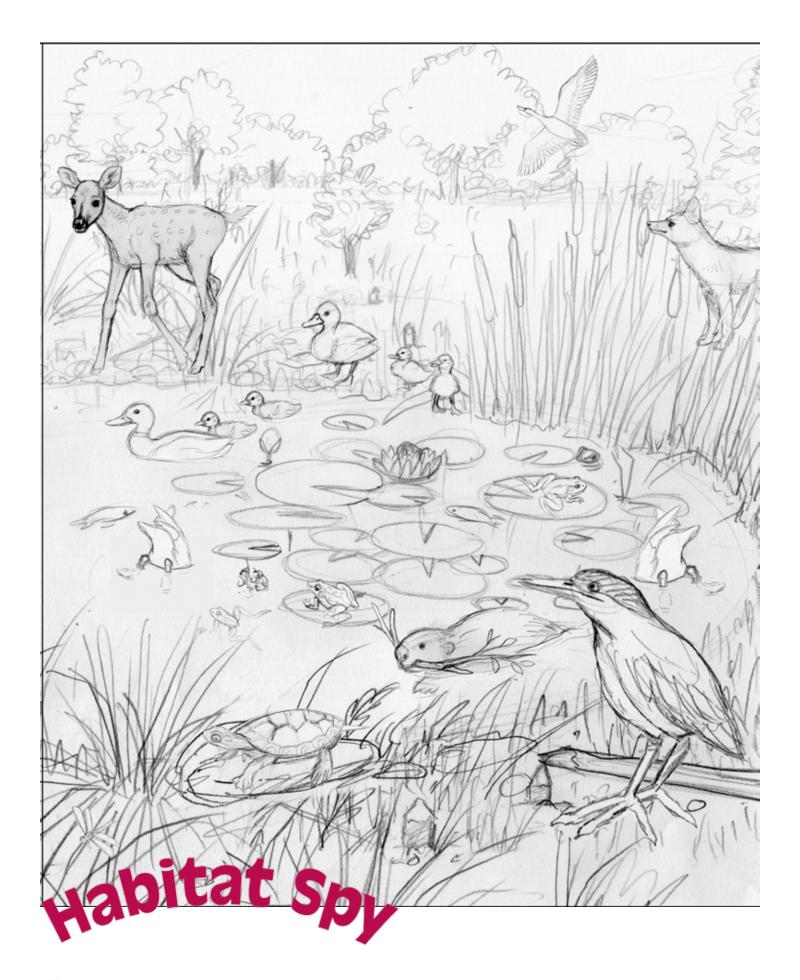
Thanks to Cornell Lab of Orthinology's All About Birds for the maps: www.allaboutbirds.org.



Thanks to Cornell Lab of Orthinology's All About Birds for the maps: www.allaboutbirds.org.

Coloring Pages





Glossary

Word	Definition	Part of Speech	Spanish
biologist	a scientist who studies living organisms	noun	biólogo/a
botanist	a biologist specializing in the study of plants	noun	botánico
ecosystem	a community of living organisms and how they relate interact with their living and non-living (rocks, soil) environment	noun	ecosistema
egg	the roundish reproductive object produced by bird, reptile, and a few mammal females	noun	huevo
food chain	a series of plants and animals linked together by their food relationships	noun	cadena alimenticia.
food web	a group of interconnected food chains in an ecosystem	noun	red alimenticia
habitat	an address: a combination of the physical environment - the rocks and land and water - as well as all of the organisms that live in the same place	noun	hábitat
nest	a place used by birds, insects, fishes, turtles, rabbits, etc, for depositing their eggs or raising young	noun	nido
sun	the star closest to Earth, the center of our solar system; a ball of hot, glowing gases giving Earth heat and light.	noun	sol
antelope	a brown animal with long legs and horns that can run very fast. Mostly found in Africa and Asia	noun: animal	antílopes

Word	Definition	Part of Speech	Spanish
bald eagle	a type of bird of prey; recovered from endangered listing, the U.S. national symbol	noun: animal	águila (feminine noun)
barred owl	a large owl forest-living owl known for its "who-cooks-for- you, who-cooks-for-you-all" hooting	noun: animal	Búhu listado
bat	a flying, nocturnal mammal (the only mammal to fly)	noun: animal	murciélago
beaver	a small north american animal with thick fur and a flat tail that cuts down trees with its teeth	noun: animal	castor
beetle	a winged insect with a hard smooth back	noun: animal	escarabajo
bighorn sheep	mountainous sheep with big, curly horns.	noun: animal	musmón, borrego cimarrón
blackbird	a bird found in America and Europe with a black body and orange beak	noun: animal	mirlo
bottlenose dolphin	the most well known of the dolphin (marine mammal) family	noun: animal	delfín nariz de botella (latin America) / delfín mular (Spain) / delfín de tursión
bumblebee	a common yellow and black, hairy bee that can sting more than once (unlike a honeybee)	noun: animal	abejorro, moscardón
butterfly(ies)	a type of insecthundreds of different types	noun: animal	mariposa
cactus wren	a bird that lives in cactus in the deserts of north america and mexico	noun: animal	chochínes de cactus
cave swallow	a bird that makes its nest out of mud on the walls of a cave	noun: animal	Golondrina de cuevas

Word	Definition	Part of Speech	Spanish
crab	an invertebrate that walks side ways with 2 large claws and ten legs	noun: animal	cangrejo, bueyes, la jaiba, la centolla
crab, hermit	a soft bodied shell fish that lives in the shells of other sea creatures. It changes shells as it grows.	noun: animal	cangrejo ermitaño
crayfish	large, edible marine crustacean having a spiny carapace but lacking the large pincers of true lobsters	noun: animal	cangrejo de rió
deer	large, brown wild animal (ruminant mammal), males grow antlers and are called bucks, females are does, babies are fawns	noun: animal	venado, ciervo
dolphin	a small, toothed whale (cetacean)	noun: animal	delfín, delfínido, cetáceo
dragonfly	an insect with a long,colorful body and two sets of clear wings	noun: animal	libélula
duck	a small, web-footed swimming bird	noun: animal	pato
eagle	a type of bird of prey	noun: animal	águila
Eastern kingbird	a common flycatcher	noun: animal	pájaros reales, · Pitirre americano
elephant seal	seals with a long, trunk-like nose	noun: animal	elefante marino
fox	small to medium-sized canids (dog), with a long narrow snout, and a bushy tail.	noun: animal	zorro
grasshopper	a green insect with long back legs used for jumping	noun: animal	saltamontes

Word	Definition	Part of Speech	Spanish
Great Blue Heron	the largest and most widespread heron in North America, found in both freshwater and saltwater wetlands	noun: animal	Garzón Cenizo
Great horned owl	a common North American owl found in many habitats: Arctic tundra, temperate forests, tropical rainforest, desert, and backyards	noun: animal	gran Búho Americano
grey fox	a dark grey fox found in from southern Canada to the northern part of South America	noun: animal	zorro gris
jellyfish	transparent, marine invertebrates	noun: animal	medusas, aguasmalas, el agua mala
lemming	a small animal similar to a mouse that travels in large groups	noun: animal	roedores
lilly pad	a floating leaf of water lilly	noun: animal	hojas de nenúfar
mallard (duck)	one of the most familiar ducks, found throughout North America and Eurasia	noun: animal	ánade real
muskrat	a rodent that lives in the water and has thick brown glossy fur	noun: animal	ratas almizcleras
prairie chicken	game bird that lives in grasslands of north america	noun: animal	pollito de la pradera
pronghorn antelope	endandgerd deer-like species found in the western plains of North America	noun: animal	antílope americano
rabbit	any of various burrowing animals of the family Leporidae having long ears and short tails; some domesticated and raised for pets or food	noun: animal	conejo

Word	Definition	Part of Speech	Spanish
red-winged blackbird	a common North American blackbird with scarlet patches on the wings	noun: animal	Tordo alirrojo, Tordo capitán, Mayito de la ciénaga, Sargento
river otter	an furry mamal that lives in lakes and streams in America and Canada	noun: animal	nutria de río norteamericana
robin	an easily recognized songbird due to its red breast and its early arrival in the spring	noun: animal	petirrojo
salamander	amphibians that look like lizards but that return to water only to breed	noun: animal	salamandra
scorpion	an insect like animal with claws and a long tail containing poision that be found in hot dry places like the desert	noun: animal	escorpiones
snowy plover	a small bird with a snowy white head	noun: animal	chorlo nevado
spider	an invertebrate with 8 legs that usuallly spins a web to catch prey	noun: animal	araña
squirrel	small to medium sized rodents (mammals) with large, bushy tails	noun: animal	ardilla
western gull	a bird living on the western coast of North America living in colonies near the ocean	noun: animal	Gaviota occidental
backyard	an area behind your hours with grass and plants	noun: habitat	patio
beach, seashore	the sandy or rocky area where the ocean meets the land	noun: habitat	playa, ribera, orilla

Word	Definition	Part of Speech	Spanish
bog	a wet, spongy ground, usually with highly acid peaty soil created from decaying moss and other vegetable matter that sinks to the bottom of a lake or pond	noun: habitat	buhedal, tolla
cave	a hollow in the earth, side of a hill	noun: habitat	cueva
coastal	the land near a coast, or shoreline.	noun: habitat	costero
desert	land area that receives less than 10-12 inches (25-30 cm) of rain per year	noun: habitat	desierto
forest	a diverse community of plants and animals in which trees are the most easily seen	noun: habitat	bosque
meadow	a grassy field	noun: habitat	prado
mountain	a landmass that projects above it's surroundings	noun: habitat	montaña
ocean	the vast body of salt water that covers almost three fourths of the earth's surface	noun: habitat	océano
plains	a region of flat, treeless land covered with grasses	noun: habitat	llanura
pond	a relatively small body of standing, fresh water; usually shallow enough for sunlight to reach the bed	noun: habitat	estanque
river	a large, natural body of running water	noun: habitat	rio
swamp	marshy land with dense vegetation including trees not common in Alberta	noun: habitat	ciénaga
alder	a tree or shrub with conelike fruits and pointed leaves	noun: plant	alisos
algae	very small, simple plants that live in water through photosynthesis, algae are the main producers of food and oxygen in water environments	noun: plant	alga marina

Word	Definition	Part of Speech	Spanish
birch	small to medium-size trees of temperate climates, closely related to the beech/oak family	noun: plant	abedul
cypress	a tall tree with dark leaves that do not fall off in the winter	noun: plant	cipreses
goldenrod	flowers with clusters of yellow petals blooming in the fall	noun: plant	varas de oro
hemlock tree	an evergreen tree	noun: plant	cicuta
kelp	a type of algae, large brown seaweed	noun: plant	alga gigante, algas laminariales, el quelpo
lichen	a plant that is a combination of a fungus and an alga; grows on trees or rocks	noun: plant	liquen
maple	a type of tree	noun: plant	arce
saguaro cactus	a tall-growing cactus with arms; grows only in the Sonoran Desert	noun: plant	saguaro
seaweed	a green or brown plant growing in the ocean	noun: plant	algas
sundew	a small carnivorous plant found in bogs that traps insects with sticky hairs	noun: plant	rocío del so
switchgrass	a tall north american grass	noun: plant	pasto varilla
verbena	tropical and sub tropical flowers with spikes of colorful flowers	noun: plant	verbena
boom	to puff up, raise feathers, and dance around with a loud call to attract female attention	verb	retumbar
bump	to accidentaly hit a part of your body against smothing making it hurt	verb	golpear
call	(Dolce) Sight word, grade 2	verb	llamar

Word	Definition	Part of Speech	Spanish
click	making a short sound like when you press a button	verb	hacer clic
cling	to hold on to someone or something tightly with your arms or hands	verb	adherirse
crawl	to move slowly with the body near the ground	verb	arrastrarse, serpear, ir a gatas
creep (crept=past tense)	to move quietly and slowly	verb	trepar
dance	move up and down lightly and quickly	verb	bailar
dart	to make a quick sudden movement	verb	lanzarse, salir disparado
drift	to be carried by winds and currents, to wander aimlessly	verb	ir a la deriva
drum	to hit an insturment and make a rhymical noise	verb	tambalear
flip	to turn over quickly	verb	voltear
flit	to move quickly from one place to another	verb	revolotear
float	to move along the surface of water with out sinking	verb	flotar
gape	to be wide open	verb	abrirse
glide	to move smoothly without any apparent effort	verb	deslizarse, planear
guard	to watch over, keep safe	verb	proteger
hide	to put something or be somewhere that none can find or see	verb	esconder
hop	move by jumping with two or all feet at once	verb	saltar
hum	to make the natural noise of an insect in motion	verb	tararear
jump	(Dolce) Sight word, Pre-K	verb	saltar, brincar
knit	to form into fabric by weaving	verb	tejer

Word	Definition	Part of Speech	Spanish
loom	to come into view or hang over usually something dark or threatening	verb	aparecer
nip	to pinch or bite	verb	mordiscar
peek	to look at something quickly and secretively	verb	echar una ojeada
play	(Dolce) Sight word, Pre-K	verb	jugar
plunge	to fall quickly	verb	zambullida
poke	to quickly push something with your finger or a pointed object	verb	pinchar
prance	to walk or move in a spritely way	verb	menearse
prick	to make a small hole with something sharp	verb	picar
rise	to move upward to a higher position	verb	elevarse
root	1) to search for something 2) to grow roots	verb	arraigarse
run	to move faster than a walk (Dolce) Sight word, Kindergarten	verb	se ejecuta, correr
shade	to screen or cover from sun and heat	verb	dar sombra
sing	(Dolce) Sight word, grade 2	verb	cantar
sip	to drink small amounts	verb	sorber
sneak	to move quietly and secretly so noone can hear or see you	verb	afanar
snick	to cut a glancing blow	verb	tijeretear
spread	to distribute, to become widespread	verb	extender
spring	to move upward or forward swiftly; to leap	verb	saltar
stand	to be upright	verb	estar de pie
stretch	to make something longer or wider	verb	estirar
stride	to take long steps	verb	pasearse

Word	Definition	Part of Speech	Spanish
sway	to move back and forth or side to side	verb	balancearse, bambolearse
tap	1) to gently touch someone or something 2) to take resources like water	verb	espitar, repiquetear
trap	to prevent something from leaving a place	verb	atrapar
wade	to walk in or through water that's not very deep	verb	vadear

In the Art

Backyard



١.	American lady butterfly	I
2.	beagle	1
3.	bumblebee	3
4.	chipmunk	1
5.	cone flowers	9
6.	goldfinch	1
7.	maple tree leaves (with	nest
8.	oriole	1
9.	rabbit	1
10.	raccoon	1
11.	robin	4
12.	squirrel	4
13.	maple trees	2

Meadow



1.	bee	1
2.	bluebird	2
3.	cow	4
4.	field mouse	1
5.	field sparrow	1
6.	grasshopper	3
7.	house finch (flying)	1
8.	mole digging in dirt	1
9.	painted lady butterfly	1
10.	rabbit	3
11.	red-tailed hawk	1
12.	red-winged blackbird in tree	4
13.	black-eyed Susan	lots
14.	goldenrod	lots
15.	milkweed	lots of leaves
🎉 A	rbordale Publishing	51

Pond



۱.	beaver	3
2.	bullfrog	3
3.	deer	1
4.	dragonfly(ies)	3
5.	goldfish	2
6.	green heron	1
7.	mallard (duck)	9
8.	painted turtle	1
9.	red fox	1
10.	swan	1
11.	wood frog	1
12.	yellow warbler	1
13.	cattail	lots
14.	lilypad	lots

Forest

THE STATE OF THE S		

1.	barred owl	1
2.	black bear	1
3.	blue jay	2
4.	white-tailed deer	3
5.	downy woodpecker	1
6.	great horned owl	1
7.	millipede	2
8.	porcupine	1
9.	red fox	1
10.	skunk	1
11.	wild turkey	1
12.	hemlock tree	

River



1.	bald eagle	1
2.	bank swallow	1
3.	butterfly(ies)	1
4.	coot	2
5.	great blue heron	2
6.	loon	2
7.	moose	1
8.	mudpuppy salamander	1
9.	Northern water snake	1
10.	opossum	6
11.	river otter	2
12.	water striders	2
13	alder	

Swamp



١.	anigator	I
2.	apple snail	1
3.	bobcat	1
4.	crayfish	2
5.	cypress fox squirrel	1
5 .	dragonflies	3
7.	Eastern kingbird	3
3.	limpkin	2
9.	muskrat	2
10.	pig frog	2
11.	swallow-tailed kite	1
12.	wood stork	3
13.	cypress	
14.	ghost orchid	

Cave



1. a	algae	on cave walls
2. (cave centipede	1
3. (cave cricket	1
4. (cave spider	2
5. (cave swallow	9
6. <u>g</u>	great horned owl	1
7 I	Mexican free-tailed hat	15

Bog



1.	American bittern	1
2.	beetle	1
3.	black-necked stilt	1
4.	great egret	1
5.	green frog	2
6.	Hungerford's crawling water beetle	1
7.	leaf beetle	1
8.	lemmings	2
9.	Northern waterthrush	1
10.	osprey	1
11.	pied-billed grebe	3
12.	spotted turtle	2
13.	white-tailed deer	1
14.	yellow-bellied flycatchers	2
15.	pitcher plant	
16.	sundew	
17.	swamp loosestrife	

Plains

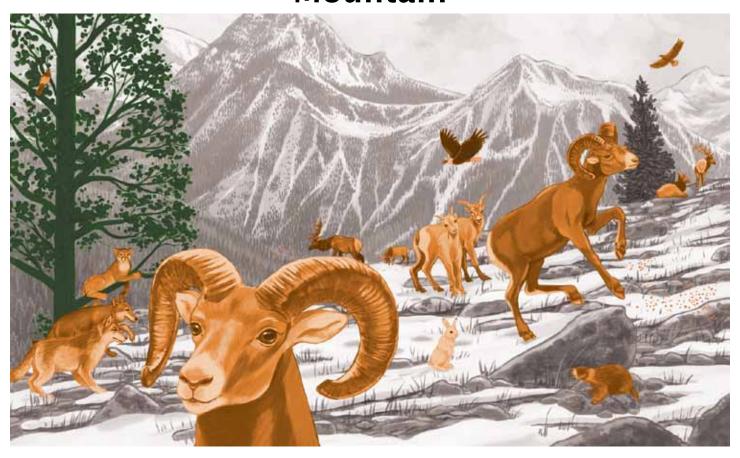


		COLUMN TO A STATE OF THE PARTY
1.	meadowlark	•
2.	prairie chicken	4
3.	prairie dog	•
4.	pronghorn antelope	4
5.	American bison	!
6.	red admiral butterfly(ies)	3
7.	red-spotted purple butterflies	
8.	hoary comma butterfly	•
9.	monarch butterflies	(
10.	Old World swallowtail butterfly	•
11.	checkered white butterflies	
12.	hackberry butterfly	•
13.	downy gentian	
14.	downy phlox	
15.	cream false indigo	
16.	indigo bunting	
17.	milkweed	
_	<u>-</u>	

switchgrass

18.

Mountain

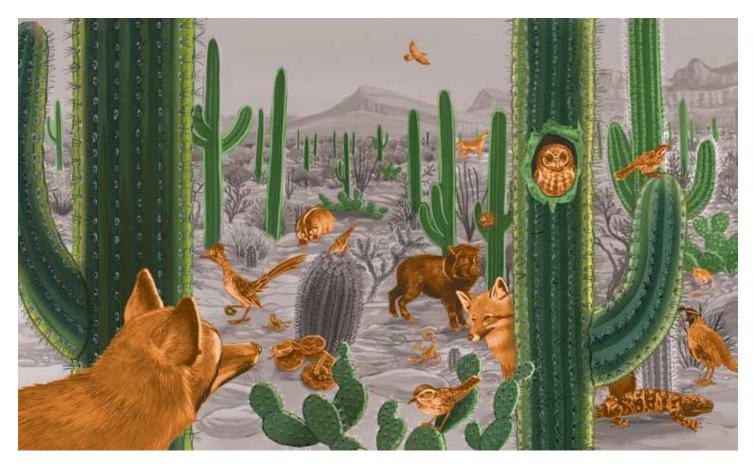


1.	bald eagle	1
2.	bighorn sheep	4
3.	elk	4
4.	golden eagle	1
5.	midges on snow	not counted
5 .	mountain lion	1
7.	snowshoe hare	1
3.	Stellar's jay	1
9.	wolves	2
10.	yellow-bellied marmot	1
11.	lichen	

12.

larch

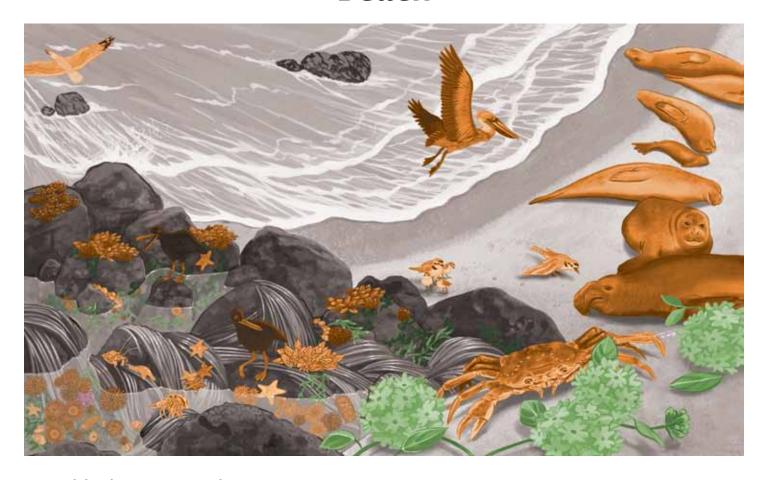
Desert



1.	badger	1
2.	cactus wren	5
3.	collared peccary	1
4.	coyote	1
5.	desert hairy scorpion	2
6.	diamondback rattlesnake	1
7.	elf owl	1
8.	Gambel's quail	1
9.	gila monster	1
10.	greater roadrunner	1
11.	grey fox	2
12.	kangaroo rat	1
13.	barrel cactus	
14.	prickly pear cactus	

15. saguaro cactus

Beach



1.	black oystercatcher	2
2.	brown pelican	1
3.	California mussel clusters	4
4.	California purple sea urchin	12
5.	elephant seal	7
6.	gooseneck barnacle clusters	1
7.	hermit crab	2
8.	ring-billed gull	1
9.	sea lemon	2
10.	sea star	8
11.	shore crab	1
12.	snowy plover	5
13.	sea anemone	lots
14.	periwinkle snails	lots
15.	pink sand verbena	

Ocean



1.	bat star	1
2.	bottlenose dolphin	2
3.	common dolphin	1
4.	common market squid	4
5.	cross jellyfish	11
6.	garibaldi fish	5
7.	giant kelpfish	2
8.	grey whale	1
9.	harbor seal	1
10.	kelp bass	1
11.	leopard shark	1
12.	pelagic cormorant	2
13.	sea nettle jellyfish	1
14.	sea otter	3
15.	Western gull	5
16.	herring	lots
17.	kelp	
18.	orange sponge	

19.

sea anemone

Answers

Silly Sentences

Habitats are communities of plants, animals, and non-living things that interact in certain locations.

Plants need sunlight and heat, water, soil to grow, and a way for seeds to move.

Many mammals take in oxygen through their mouths or noses, while fish use gills.

A predator has to find other animals living in its habitat to eat, which we call prey.

Plants make their own food from sunlight and nutrients in the soil that come from decaying things that were once alive.

All of the plants and animals that are eaten by or that eat a particular animal are part of that animal's food chain.

One habitat will have many different food chains that are linked together, called a food web.

Some animals live in more than one habitat, such as the bighorn sheep that might live in the desert and mountains.

All birds have feathers and wings, but not all birds fly.

Word Search

OCEAN 3E
SEAWEED 1A
JELLYFISH 1J
EAGLE 1B
BUMBLEBEE 21
BEAVER 5A
CRAYFISH 8A

SALAMANDER 10A

CYPRESS 3G

FOREST 2C

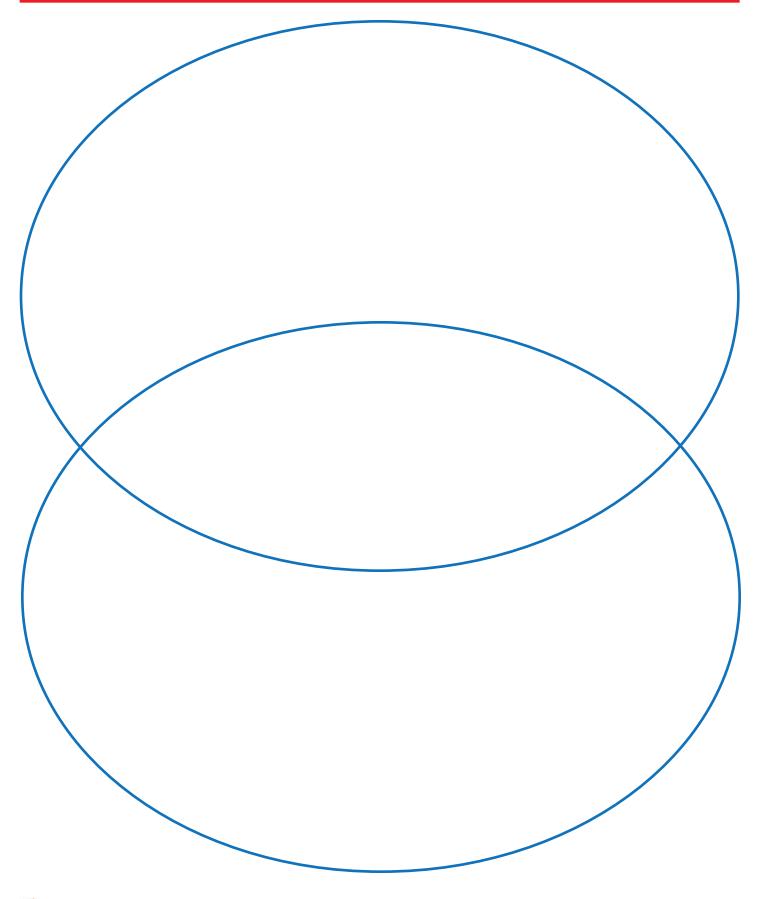
Answers:

- 1. True
- 2. False (Many animals raise their young but some animals do not. Those animals are born with instinct to help them survive.)
- 3. False (many animals can move, some more easily than others. Adult plants do not move from one location to another, but their seeds disperse (move) with help from wind or animals.)
- 4. False (Living things might be able to move between some habitats (ponds, meadows, forests) but they have body parts and behaviors (adaptations) that help them live in their habitats.
- 5. False (Non-living things can't move by themselves, but they can be moved by wind, water, or other forces.)
- 6. True AND False (There's more to the story...a habitat includes all of the living things (plants, animals, etc.) PLUS non-living things like the climate, soil, rocks, and water.)
- 7. True
- 8. False (Natural forces (earthquakes, hurricanes, or floods) can change a habitat and so can people or animals.)
- 9. False (This is a trick question! Land animals breathe oxygen from the air; other animals get their oxygen from the water in which they live. All animals breathe oxygen.)
- 10. False (This is another trick question! A food chain includes all of the plants and animals for a specific animal. One habitat will have many different food chains that are linked together, called a food web.)
- 11. False (Plants are always at the bottom of food chains and food webs because they make their own food. Plant plankton (phytoplankton) are at the bottom of some food chains.)
- 12. True (Some animals might move or migrate between habitats as part of their normal life cycle.)

Appendix A—"What Children Know" Cards

Question:	Question:
My answer:	My answer:
This information is correct!	This information is correct!
This information is not correct; can you find the correct information?	This information is not correct; can you find the correct information?
Question:	Question:
Question.	Question.
My answer:	My answer:
This information is correct!	This information is correct!
This information is not correct; can you find the correct information?	This information is not correct; can you find the correct information?

Appendix B—Venn Diagram



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Appendix C—U.S. Map



Appendix F—Vocabulary Cards

bighorn sheep	decaying
feathers	food
food chain	food web

interact	live
living	non-living
oxygen	predator

prey	sunlight
water	wave
wings	verbena