

# Teaching Activity Guide



## **Animalogy** Animal Analogies



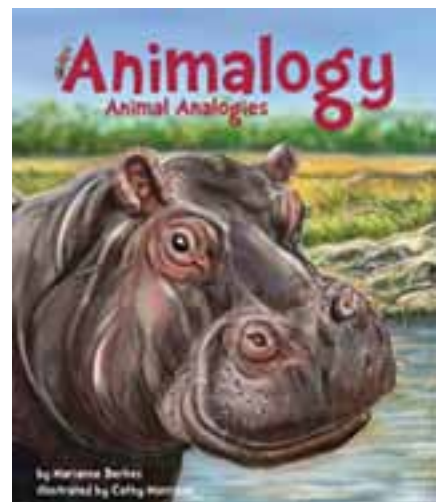
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illustrated by Cathy Morrison

# How to Use This Activity Guide (General)

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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.

**For teachers in the classroom:** We understand that time is at a premium and that, especially in the early grades, much time is spent teaching language arts. All Arbordale titles are specifically selected and developed to get children excited about learning other subjects (science, geography, social studies, math, etc.) while reading (or being read to). These activities are designed to be as comprehensive and cross-curricular as possible. If you are teaching sentence structure in writing, why not use sentences that teach science or social studies? We also know and understand that you must account for all activities done in the classroom. While each title is aligned to all of the state standards (both the text and the For Creative Minds), it would be near impossible to align all of these activities to each state's standards at each grade level. However, we do include some of the general wording of the CORE language arts and math standards, as well as some of the very general science or social studies standards. You'll find them listed as "objectives" in italics. You should be able to match these objectives with your state standards fairly easily.

**For homeschooling parents and teachers in private schools:** Use as above. Aren't you glad you don't have to worry about state standards?

**For parents/caregivers:** Two of the most important gifts you can give your child is the love of reading and the desire to learn. Those passions are instilled in your child long before he or she steps into a classroom. Many adults enjoy reading historical fiction novels...fun to read but also to learn (or remember learning) about historical events. Not only does Arbordale publish stories that are fun to read and that can be used as bedtime books or quiet "lap" reading books, but each story has non-fiction facts woven through the story or has some underlying educational component to sneak in "learning." Use the "For Creative Minds" section in the book itself and these activities to expand on your child's interest or curiosity in the subject. They are designed to introduce a subject so you don't need to be an expert (but you will probably look like one to your child)! Pick and choose the activities to help make learning fun!

**For librarians and bookstore employees, after-school program leaders and zoo, aquariums, nature center, park & museum educators:** Whether reading a book for story time or using the book to supplement an educational program, feel free to use the activities in your programs. We have done the "hard part" for you.



**Glossary/Vocabulary words:** Word cards may be used (see Appendix) or have children write 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.

### **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 it so the card hangs down the back. The children get to ask each person one “yes/no” question to try to guess “what they are.” If a child answering the question 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?

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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.”

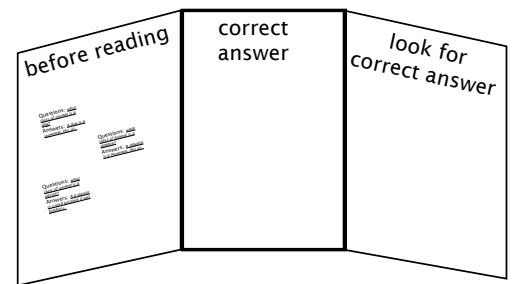
Do the children have any more questions about the subject? If so, write them down to see if they are answered in the book.

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

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What are some ways to compare animals?

What are some animals that have fur?

What are some animals that have feathers?

What are some animals that have scales?

What are some animals that are big (or tall)?

What are some animals that are small (or short)?

What are some ways that animals move?

What are some animals that swim?

What are some animals that fly?

What are some animals that walk?

What are some animals that don't have legs?

# Thinking It Through & Writing Prompts

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*Objective Core Language Arts: Realize that one way to describe something is to say how it is like something else.*

Pick any two animals from the book and compare and contrast them (may use Venn Diagram in Appendix if desired):

Describe their body parts:

- Where are their eyes and how are they placed on their head?
- Ears
- Mouth and teeth
- Nose
- Legs, wings, or other body part for movement
- Do they have a tail? If so, how do you think they use it?
- Skin covering
- How do you think they breathe?

Where do they live?

How do they move?

What do you think they eat? How do you think they find their food?

What are some ways they might protect themselves from predators?

What are some sounds this animal might make?

## Language Arts & Science: Five Senses

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*Objective Core Language Literature 4: Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.*

Re-read the story and write down any words that relate to the five senses:

Touch	Taste	Sight	Smell	Hearing

## Language Arts: Vocabulary Game

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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](http://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.

## Cross-Curricular: Using the Words

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

- 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 for the “silly sentences” on the next page).
- After the cards have been sorted, go over the categories to ensure that all cards have been placed correctly. (Mistakes are a great opportunity to teach!)
- Choose two words from each category and write a sentence for each word, using the word correctly.
- Write a story that uses at least ten vocabulary words from the word sort.
- 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.



# Cross Curricular: Silly Sentences

Objective Core Language Arts: Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.

Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

Use frequently occurring adjectives.

Use animals from the book to answer these questions (all information is found somewhere in the book).

1. All \_\_\_\_\_<sup>noun</sup>s have feathers, but not all birds can \_\_\_\_\_<sup>verb</sup>. \_\_\_\_\_<sup>noun</sup> and \_\_\_\_\_<sup>noun</sup> are birds.
2. \_\_\_\_\_<sup>noun</sup>s and \_\_\_\_\_<sup>noun</sup>s have some kind of scales.
3. Reptiles have \_\_\_\_\_<sup>adjective</sup> scales, but most fish have \_\_\_\_\_<sup>adjective</sup> - \_\_\_\_\_ scales.
4. \_\_\_\_\_<sup>noun</sup>s have \_\_\_\_\_<sup>noun</sup> or \_\_\_\_\_<sup>noun</sup>.
5. \_\_\_\_\_<sup>noun</sup>s, \_\_\_\_\_<sup>noun</sup>s, \_\_\_\_\_<sup>noun</sup>s, \_\_\_\_\_<sup>noun</sup>s and \_\_\_\_\_<sup>noun</sup> all have backbones.
6. \_\_\_\_\_<sup>noun</sup>s do not have backbones.
7. \_\_\_\_\_<sup>noun</sup>s and \_\_\_\_\_<sup>noun</sup>s have \_\_\_\_\_<sup>adjective</sup> outer coverings (exoskeleton).

# Language Arts: Word Families & Rhyming Words

Word families are groups of words that have some of the same combinations of letters in them that make them sound alike...or rhyme. For example ad, add, bad, brad (Brad), cad, Chad, clad, dad, fad, gad, glad, grad, had, lad, mad, pad, plaid (silent 'i'), sad, shad, and tad all have an "ad" letter combination and rhyme.

- Find and write down rhyming words in the poem.
- Are they in the same word family?
- If so, circle the combination of letters that are the same.
- Can you think of more words in the word family?

Rhyming words are:

and

They are / are not from the same word family.

Other words that rhyme are:

Rhyming words are:

and

They are / are not from the same word family.

Other words that rhyme are:

Rhyming words are:

and

They are / are not from the same word family.

Other words that rhyme are:

Rhyming words are:

and

They are / are not from the same word family.

Other words that rhyme are:

# Language Arts: Shades of Meaning

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*Objective Core Language Arts Vocabulary Acquisition and Use:*

*Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.*

*Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).*

*Choose words and phrases to convey ideas precisely.*

Use the word bank words to fill in the sentences or to answer the questions.

## Word Bank

bark	big, bigger, biggest	build
burrow	buzz	chirp
cool	crawl	dart
dash	dig	diurnal
dry	feathery	flit
float	fly	furry
giant	glide	growl
grunt	hard	hiss
hoot	hop	hot
hum	icy	jump
light	little	long, longer, longest
moist	new	nip
nocturnal	old	ragged
roar	rocky	rough
run	scamper	scratch
scurry	sing	slime-covered
slow	small, smaller, smallest	smooth
snarl	soar	soft
spin	squeak	swim
tall/taller/tallest	walk	wet
whistle	young	yowl

1. If a dog barks, a lion roars, and an owl hoots; what does a mouse do? What about a bee? What are some other words for the sounds animals make?

2. If a bat flits and an eagle soars; what are they both doing? What are some other words that could mean that too?



3. If the robin is small, describe the chick and the bee.

4. What are some words to compare or describe the three bears?



5. If a bear is furry, and a fish is slime-covered, what is a bird?

6. If a bird flies and a mouse scurries, what does a fish do? What are some other words for how animals move? Can you act out the differences?



7. If bats are active at night, or nocturnal, what is an animal called that is active during the day?

# 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).

	A	B	C	D	E	F	G	H	I	J
1	A	N	I	V	S	B	R	A	B	O
2	S	Y	T	U	B	E	A	V	E	R
3	K	E	L	P	O	A	B	O	E	T
4	U	N	D	E	E	R	B	T	A	R
5	N	H	I	P	P	O	I	A	R	E
6	K	I	S	G	O	B	T	L	O	A
7	E	P	Y	O	D	I	U	E	F	T
8	C	F	L	O	U	N	D	E	R	S
9	E	A	T	S	C	O	L	D	O	G
10	S	N	A	E	K	A	N	T	G	I

FLOUNDER

8B

SKUNK

2A

FROG

7I

BEE

1I

ROBIN

4F

DUCK

7E

DOG

9H

GOOSE

6D

DEER

4C

BEAR

1F

BEAVER

2E

HIPPO

5B

RABBIT

1G

ANT

10G



# Adaptations

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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  
poisonous 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:

<p>Where (in what kind of habitat) does your animal live?</p>	<p>What is a body part adaptation and how does it help the animal live in its environment?</p>
<p>What kind of body covering does it have and how does it help the animal live in its environment?</p>	<p>How does the animal hide from predators or prey, or how does it protect itself?</p>

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

# Classifying Animals

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

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	meat eater (carnivore)		
	both (omnivore)		

# Animal Sorting Cards





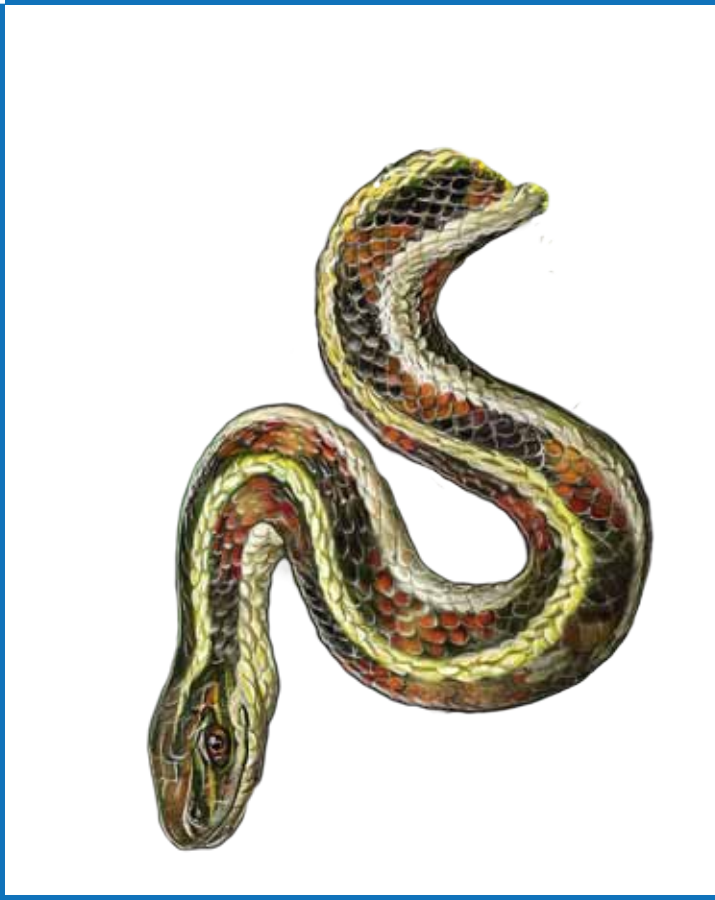












## Vertebrate

my definition

my drawing

## Invertebrate

my definition

my drawing

# furry

my definition

my drawing

# feathery

my definition

my drawing

## True or False?










---

Circle whether you think the statement is true or false:

1. T/F All animals breathe oxygen from the air using lungs.
2. T/F All animals that live in the water breathe oxygen from the water using gills.
3. T/F All birds have feathers but not all birds can fly.
4. T/F All mammals have hair or fur at some point in their life.
5. T/F Insects, spiders, and amphibians do not have backbones.
6. T/F Birds are the only animals that can fly.
7. T/F Mammals are all big and fish are all little.
8. T/F Reptiles are the only animals that have scales.
9. T/F Beavers build their homes by chopping down trees and piling them up.
10. T/F Spiders spin webs.
11. T/F A flounder is a type of bird.
12. T/F A frog is an amphibian.
13. T/F A bee is an insect.
14. T/F A snake is an amphibian.
15. T/F Insects and spiders have hard outer coverings called exoskeletons.



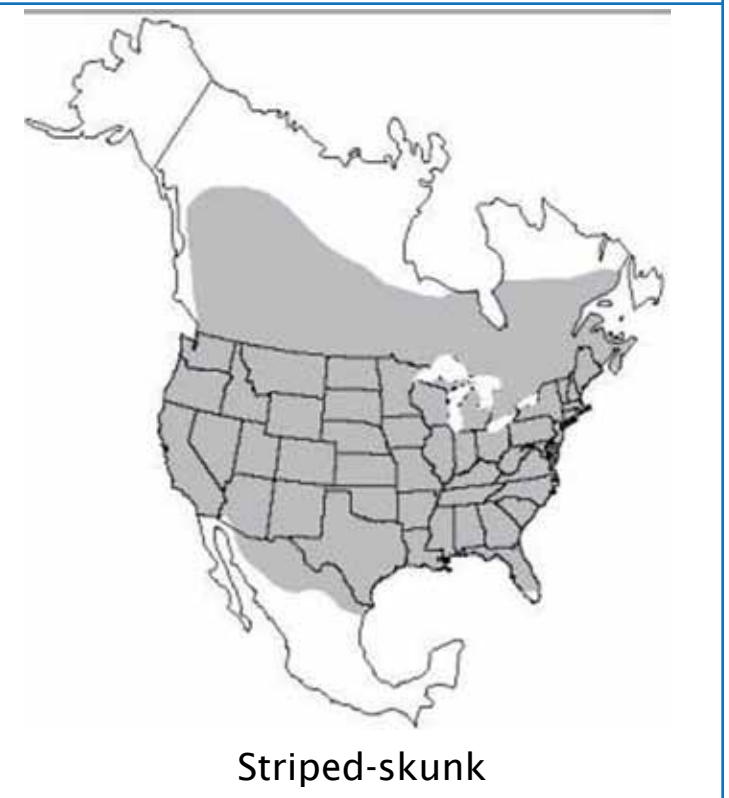
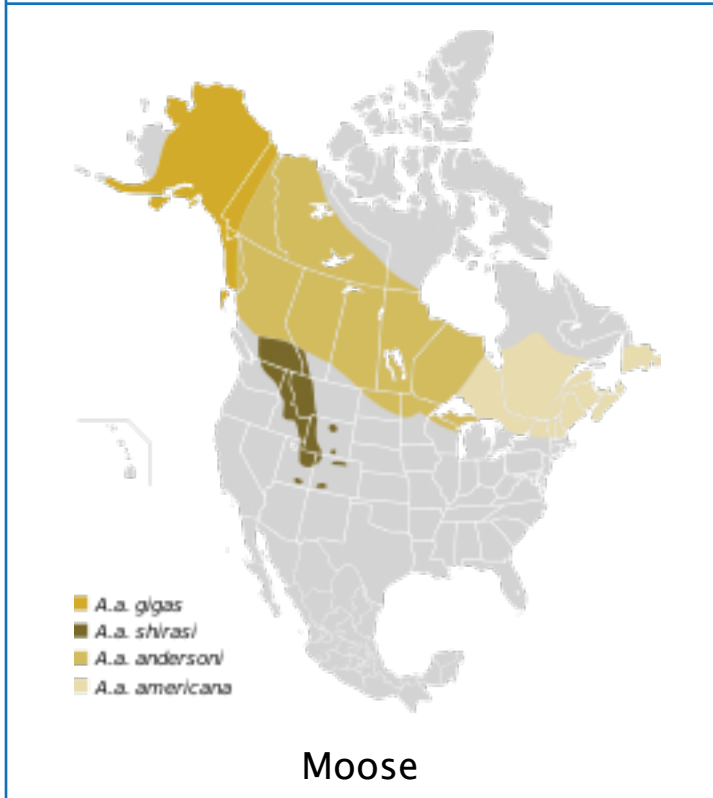
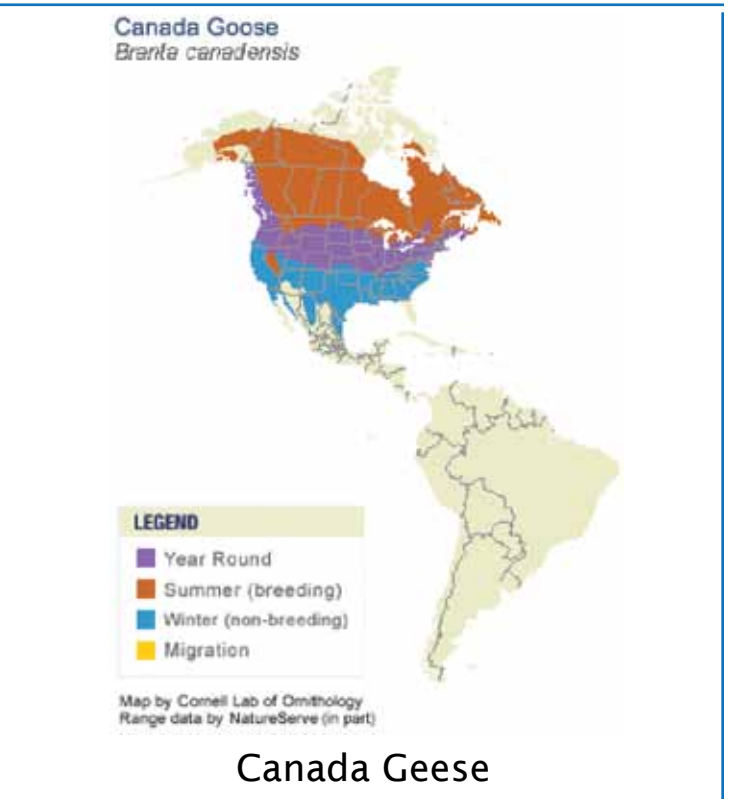
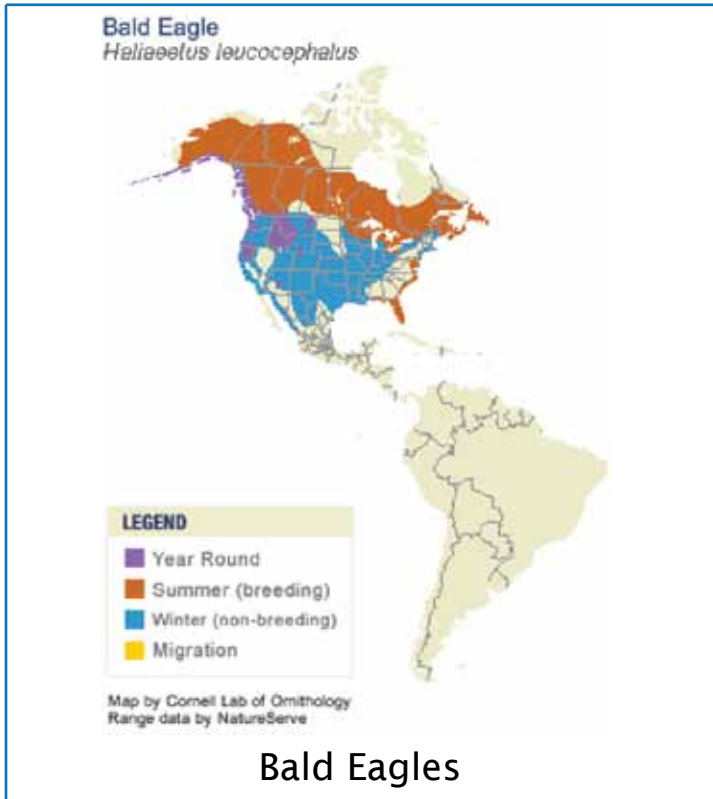
# Math Cards

<p><b>1</b></p> 	<p><b>2</b></p> 
<p><b>3</b></p> 	<p><b>4</b></p> 
<p><b>5</b></p> 	<p><b>6</b></p> 
<p><b>7</b></p> 	<p><b>8</b></p> 
<p><b>9</b></p> 	

# Map Activity

Using these maps as a reference, color the areas where these animals live on the blank map (in appendix). Click on the animal name to go to the map source.

Do any animals live in the same state or province as you?











# Glossary

Word	Definition	Part of Speech	Spanish
action	something that is done, the act of doing something	noun	acción
air	the invisible gaseous substance surrounding the earth, a mixture mainly of oxygen and nitrogen	noun	aire
amphibian	a cold-blooded animal with smooth, moist skin; lives in water and then land; breathes through gills and then lungs, e.g. frogs, newts, and salamanders	noun: classification	anfibio
animal	any member of the kingdom Animalia: can move voluntarily, get and eat food, and respond to stimuli	noun	animal
ant	a small insect that lives in colonies, known for workers	noun: animal	hormiga
antennae	long, thin, feelers from an insect's head that inform it about the feel, sound, taste, smell, temperature, and humidity in the world outside of its skeleton (plural is antenna)	noun: body part	antena
Arachnida (Arachnid)	a class of arthropods: scorpions, spiders, mites, ticks, etc.	noun: classification	arácnidos
backbone	the vertebrae forming the axis of the skeleton and protecting the spinal cord	noun: body part	columna vertebral, espina dorsal
bald eagle	a type of bird of prey; recovered from endangered listing, the U.S. national symbol	noun: animal	águila (feminine noun)
bark	to make the characteristic short, loud cry of a dog	verb	ladra
bask	to lie in or be exposed to a pleasant warmth (sunshine)	verb	tomar el sol
bat	a flying, nocturnal mammal (the only mammal to fly)	noun: animal	murciélago



Word	Definition	Part of Speech	Spanish
beak	The elongated mouth of some dolphins.	noun: body part	pico
bear	a large mammal with sharp claws	noun: animal	oso
beaver	a small North American animal with thick fur and a flat tail that cuts down trees with its teeth	noun: animal	castor
bee	a small flying insect	noun: animal	abeja
big, bigger, biggest	large (size, height, or amount); (Dolch Sight word, Pre-K, K)	adjective	grande
bird	a warm-blooded vertebrate that breathes oxygen with lungs, has a beak, feathers, two wings, two legs, and lays eggs; birds are the ONLY animals that have feathers; not all birds fly	noun: classification	ave, pájaro
black	a dark color, the opposite of white	adjective	negro
body covering	any covering for the body or a body part: skin, fur, hair, feathers, scales, shell	noun: body part	lo que cubre el cuerpo
bone	the hard tissue that makes the skeleton of vertebrates.	noun: body part	huesos
breathe	to take in/absorb oxygen	verb	respirar
build	to put pieces together, to make bigger	verb	construir, fabricar
burrow	to dig, excavate	verb	excavar
buzz	a low continuous humming sound like that of a bee	verb	zumbar
call	to make a loud noise (animal), to speak loudly; Dolch Sight word, grade 2	verb	llamar
caterpillar	larva of a butterfly or moth	noun: animal	oruga
cephalothorax	head and thoracic segments, as in spiders	noun: body part	cefalotórax
chick	baby bird	noun: animal baby	pollo, polluelo
chirp	to make a short, high sound	verb	piar
chitin	the tough material that makes insect and other arthropod covering	noun	quitón, crustáceo



<b>Word</b>	<b>Definition</b>	<b>Part of Speech</b>	<b>Spanish</b>
classify	to arrange or organize according to class or category	verb	clasificar, ordenar
claw	a sharp, curved nail on the toe of an animal	noun	garras
cold-blooded	having a body temperature that rises or falls with the temperature of the surrounding environment	adjective	de sangre fría
construct	to assemble, to put together	verb	edificar, construir
cool	neither very warm or very cold	adjective	fresco
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
crouch	to lie close to the ground with legs bent	verb	agacharse
curl	to twist into a circular form	verb	escarolar
dart	to make a quick sudden movement	verb	lanzarse, salir disparado
dash	to move with sudden speed	verb	guiones
deer	large, brown wild animal (ruminant mammal), males grow antlers and are called bucks, females are does, babies are fawns	noun: animal	venado, ciervo
dig	break up and move earth with a tool or machine, or with hands , paws, snout, etc.	verb	cavar
diurnal	an animal that is active during the day, 2) one day	adjective	diurno
dog	a domesticated animal (pet), related to wolves	noun: animal	perro
drum	to make a rhythmic noise, could be on a musical instrument	verb	tambalear
dry	not wet or moist	adjective	seco

<b>Word</b>	<b>Definition</b>	<b>Part of Speech</b>	<b>Spanish</b>
ear	a body part used to hear	noun: body part	oreja
egg	the roundish reproductive object produced by bird, reptile, and a few mammal females	noun	huevo
endothermic	warm-blooded: animals that make and maintain their own body heat (humans maintain body temperature at 98.6; a higher temperature signals a fever)	adjective	endotérmico
exoskeleton	the hard covering system on the outside of an insect or other invertebrate	noun: body part	esqueleto exterior
fast, faster, fastest	opposite of slow, slower, slowest; Dolch Sight word, grade 2	adjective	rápido/mas rápido
feathers	a bird's body covering	noun: body part	plumas
feathery	having feathers	adjective	plumoso
feet	the plural form of foot	noun	pies
fin	a fish's body part used to stabilize	noun	aleta
fish	a type of animal (classification) that lives in water, is cold-blooded, has scales, and breathes air through gills	noun: classification	pez (vive) pescado (comida)
fishes	plural form of fish used only for types, not number (two or more of one type of fish=fish, two or more different types of fish=fishes)	noun	peces
flit	to move quickly from one place to another	verb	revolotear
float	to move along the surface of water with out sinking	verb	flotar
flounder	a bottom-living flat fish with both eyes on one side of head	noun: animal	lenguado
fly	to move quicky through the air; Dolch Sight word, grade 1	verb	volar
freeze	to turn from a liquid into a solid because of cold temperatures	verb	congelar

<b>Word</b>	<b>Definition</b>	<b>Part of Speech</b>	<b>Spanish</b>
frog	an amphibian with long hind limbs for leaping	noun: animal	rana, sapo
fur	the hairy coat of a mammal	noun: body part	pelaje, pieles
furry	having fur	adjective	peludo
fuzzy	have a covering with fine, light hairs	adjective	muy rizado
giant	of great size, really big	adjective	gigante
gills	body parts that some aquatic animals (fish) use to obtain oxygen from the water	noun: body part	agallas, branquias
glide	to move smoothly without any apparent effort	verb	deslizarse, planear
goldfish	a small fish often used as pet	noun: animal	pez dorado
goose	a large white or grey migrating bird	noun: animal	ganso, oca
growl	to utter a low, frightening noise	verb	gruñe
grunt	make a low, short guttural sound	verb	gruñir
hair	a mammal's outermost covering, made up of threadlike growths on the skin	noun: body part	pelo
hard	not soft, solid and firm to the touch	adjective	duro
hatch	to emerge from an egg, pupa, or chrysalis	verb	incubar
heavy, heavier, heaviest	weighing more than something else	adjective	pesado, mas pesado, lo mas pesado
hippo/ hippopotamus	a large herbivore mammal that spends much of its time sitting in the water	noun: animal	hipopótamo
hiss	to make a sharp sound	verb	silbar
hoot	to make the natural throat noise of an owl	verb	ulular
hop	move by jumping with two or all feet at once	verb	saltar

Word	Definition	Part of Speech	Spanish
hot	having a high degree of heat or a high temperature, (Dolch) Sight word, grade 3	adjective	calor
hover	to flutter about in one area	verb	cernerse, suspender (suspend)
hum	to make the natural noise of an insect in motion	verb	tararear
icy	covered with ice, or extremely cold	adjective	helado
inner	inside, close to	adjective	interior
Insect	a six-legged arthropod, usually with a hard exoskeleton and three main body parts	noun: classification	insecto, bicho
invertebrate	animal without a backbone; about 97% of all known species are invertebrates	noun: classification	invertebrado
jump	(Dolch) Sight word, Pre-K	verb	saltar, brincar
large/larger/largest	bigger than usual, bigger than that, the biggest of all	adjective	mas grande
larva (larvae pl)	the immature free-living form of most invertebrates, amphibians, and fish	noun: animal baby	larva
leg	a structure in animals used for locomotion	noun: body part	pierna, pata
light	pale in color, well-lit; 2) not heavy	adjective	claro
little	small in size or extent (Dolch) Sight word, Pre-K)	adjective	poco
long, longer, longest	a more considerable time or distance	adjective	largo, más largo, el más largo,
lungs	organs to provide an animal with oxygen	noun: body part	pulmones
mammal	a warm-blooded vertebrate that breathes with lungs and is covered with hair/fur (at some point in its life); females produce milk to feed their live offspring	noun: classification	mamífero

Word	Definition	Part of Speech	Spanish
many	lots, plenty; Dolch Sight word, grade 2	adjective	muchos
moist	slightly wet	adjective	mojado
moose	a large herbivore mammal with antlers, often found around lakes or in meadows	noun	alce
mouse	a small rodent	noun: animal	ratón
new	opposite of old; (Dolch) Sight word, Pre-K & K	adjective	nuevo
nip	to pinch or bite	verb	mordiscar
nocturnal	animals that are active at night	adjective	nocturnos
noisy	having loud sounds	adjective	ruidoso
old	opposite of new; Dolch Sight word, grade 1	adjective	viejo
outer	on or around the outside of something, far from the center of something	adjective	externo
paw	an animal's clawed foot	noun	patas
prickly	full of or covered with prickles	adjective	espinoso
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
ragged	uneven, opposite of smooth	adjective	andrajoso
reptile	a cold-blooded, air-breathing animal with scales or plates and a backbone; most hatch from eggs (snakes, turtles, crocodiles)	noun: classification	reptil
roar	to make a long, loud, deep sound	verb	rugir
robin	an easily recognized songbird due to its red breast and its early arrival in the spring	noun: animal	petirrojo
rocky	having lots of or made of rocks	adjective	de roca
rough	uneven, coarse	adjective	áspero
run	to move faster than a walk (Dolch) Sight word, Kindergarten	verb	se ejecuta, correr

Word	Definition	Part of Speech	Spanish
scale	the ratio of the size of an object in a drawing of the object to the actual size of the object; the ratio of the distance on a map to the actual distance; 2) an instrument used to measure an object's mass.	noun	escama
scale/scales	small, plate-like structures that cover reptiles	noun: body part	escamas
scamper	to move quickly	verb	corretear
scoot	to move very quickly, to slide while seated	verb	correr rápidamente
scratch	to damage a surface by scraping it with something sharp	verb	rascar, rasguñar, arañar, rayar
scurry	to move quickly with small, quick steps	verb	correr
shady	situated in or full of shade	adjective	sombreado
short, shorter, shortest	close to the ground	adjective	bajo, mas bajo, lo mas bajo
sing	to make music with voice; (Dolch Sight word, grade 2)	verb	cantar
skin	a natural protective covering of the body; site of the sense of touch	noun: body part	piel
skunk	a small black and white animal that protects itself by emitting a stinky smell by lifting its tail when frightened	noun: animal	zorrillo
slime	a thick, wet substance	noun	secretar
slime-covered	covered with slime	adjective	escamas cubiertas y babosas
small	limited size, opposite of large	adjective	pequeño, mas pequeño, lo mas pequeño

<b>Word</b>	<b>Definition</b>	<b>Part of Speech</b>	<b>Spanish</b>
smooth	completely even	adjective	liso
snake	a legless reptile	noun: animal	serpiente, culebra, víbora
snarl	to make an angry, throaty sound and show teeth as a warning	verb	gruñir
soar	to fly about	verb	cernerse
soft	yielding readily to touch or pressure; easily penetrated, divided, or changed in shape, gentle or mild	adjective	blando, suave
spider	an invertebrate with 8 legs that usually spins a web to catch prey	noun: animal	araña
spin	to turn around quickly, 2) to make a thread	verb	girar
squeak	to make a short, high noise or speak in a high pitched voice (usually when excited)	verb	chillar
strong, stronger, strongest	powerful, a great force	adjective	fuerte
swim	to move through the water	verb	nadar
tail	(life science) the rear, elongated part of many animals, used for balance, combat, communication, mating displays, fat storage, movement and steering; (comet) a long line of gas and dust that flow away from the nucleus of the comet	noun	cola
tall/taller/tallest	greater (and comparative) height than something or someone else	adjective	alto, mas alto, lo mas alto
teeth	hard, white mouth parts used for chewing food; 2)a small, notched projection along a margin, especially of a leaf	noun	dientes



<b>Word</b>	<b>Definition</b>	<b>Part of Speech</b>	<b>Spanish</b>
thick	heavy, full	adjective	grueso
thin	narrow, skinny	adjective	delgado
tiny, tinier, tiniest	small	adjective	pequeño
vertebrate	an animal with a backbone or spinal column	noun: classification	vertebrado
wade	to walk in or through water that's not very deep	verb	vadear
walk	to move by foot; (Dolch Sight word, grade 1)	verb	andar, pasear, caminar
warm-blooded	having a warm, constant body temperature that doesn't depend on the outside environment	adjective	de sangre caliente
web	threadlike filaments spun by spiders 2) a membrane or fold of skin connecting the toes	noun	telaraña
wet	covered with water or other liquid	adjective	mojado
whisker	a type of hair on some mammals used to sense	noun: body part	bigotes
whistle	to make a high, musical sound	verb	silbar, pitar
white	a color, the opposite of black, lack of any color	adjective	blanco
wide	a large distance from one side to another	adjective	ancho
young	someone or something that has not been alive for long	adjective	joven
yowl	to cry loudly	verb	aullar

# Answers

## Silly Sentences

(Specific types of animals would be acceptable)

- All birds have feathers, but not all birds can fly. Chick, eagle, robin, geese (not bat) are birds.
- Reptiles and fishes have some kind of scales.
- Reptiles have dry scales, but most fish have slime-covered scales.
- Mammals have hair or fur.
- Mammals, reptiles, birds, amphibians and fish all have backbones.
- Invertebrates do not have backbones.
- Spiders and insects have hard outer coverings (exoskeleton).

### Word Bank possible answers:

1) squeaks, buzzes; chirp, growl, grunt, hiss, hum, sing, snarl, whistle, yowl 2) Flying, buzz, dart, or glide 3) Small, smaller, smallest 4) big bigger, biggest; furry, old and young, big/little 5) feathery 6) swims; crawl, dart, dash, flit, float, fly, glide, hop, jump, run, scamper, soar, walk 7) diurnal

### Word Search

FLOUNDER	8B	SKUNK	2A	FROG	7I	BEE	1I
ROBIN	4F	DUCK	7E	DOG	9H	GOOSE	6D
DEER	4C	BEAR	1F	BEAVER	2E	HIPPO	5B
RABBIT	1G	ANT	10G				

	A	B	C	D	E	F	G	H	I	J
1						B	R		B	
2	S				B	E	A	V	E	R
3	K					A	B		E	
4	U		D	E	E	R	B			
5	N	H	I	P	P	O	I			
6	K			G		B	T			
7				O	D	I			F	
8		F	L	O	U	N	D	E	R	
9				S	C			D	O	G
10	S	N	A	E	K	A	N	T	G	

### True or False

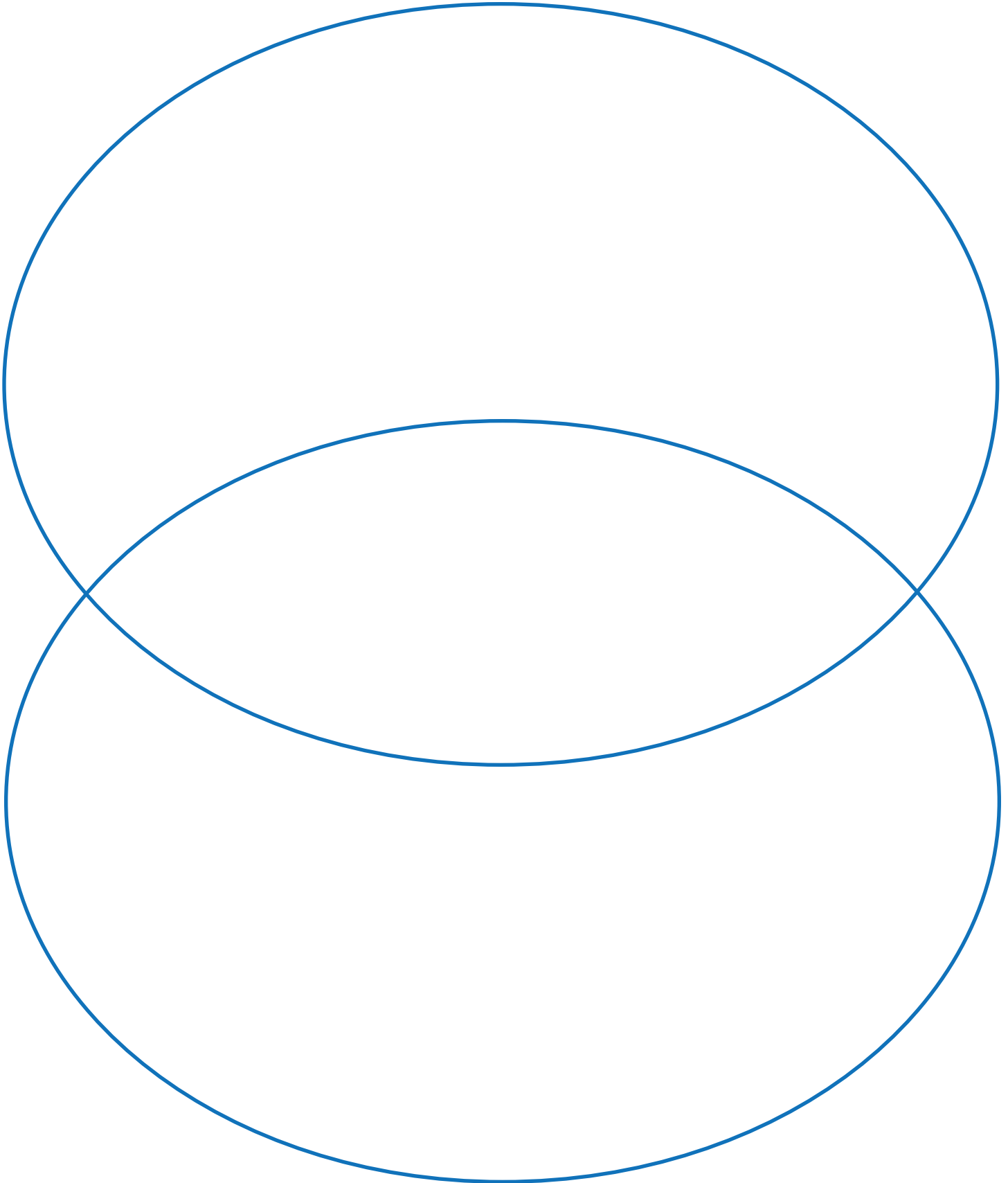
- 1) False, fish breathe oxygen from the water with gills; 2) False, mammals and reptiles that live in water come to the surface to breathe air; 3) True; 4) True; 5) False, amphibians do have backbones; 6) False, bats are the only mammal that fly and many insects fly; 7) False, size has nothing to do with scientific classification; 8) False, fish have scales too; 9) True; 10) True; 11) False, a flounder is a fish; 12) True; 13) True; 14) False, a snake is a reptile; 15) True

# Appendix A—“What Children Know” Cards

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<p>Question:</p>          <p>My answer:</p>          <p>This information is correct! This information is not correct; can you find the correct information?</p>	<p>Question:</p>          <p>My answer:</p>          <p>This information is correct! This information is not correct; can you find the correct information?</p>
<p>Question:</p>          <p>My answer:</p>          <p>This information is correct! This information is not correct; can you find the correct information?</p>	<p>Question:</p>          <p>My answer:</p>          <p>This information is correct! This information is not correct; can you find the correct information?</p>

# Appendix B—Venn Diagram



# Appendix C—U.S. Map



# Appendix D—North America Map

