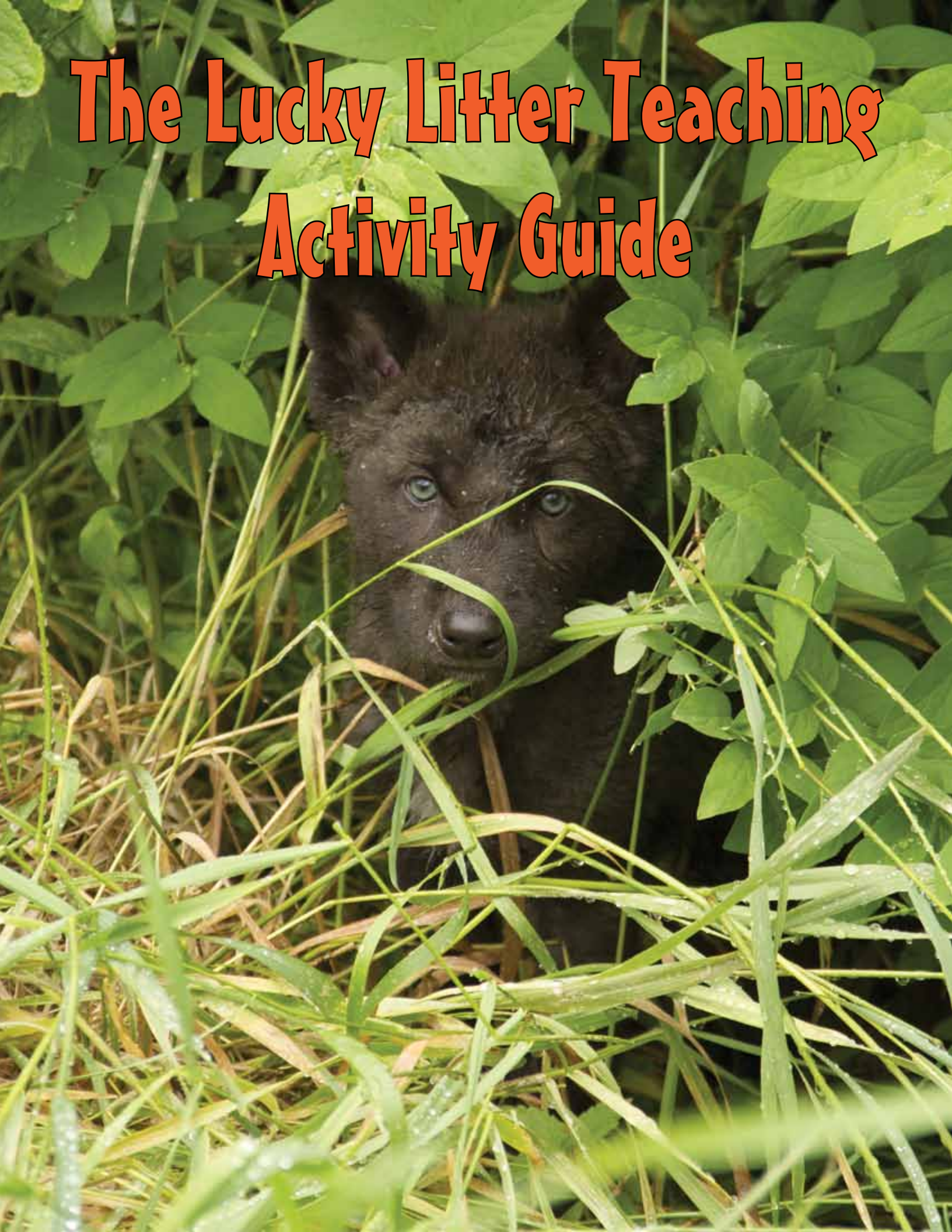


# The Lucky Litter Teaching Activity Guide



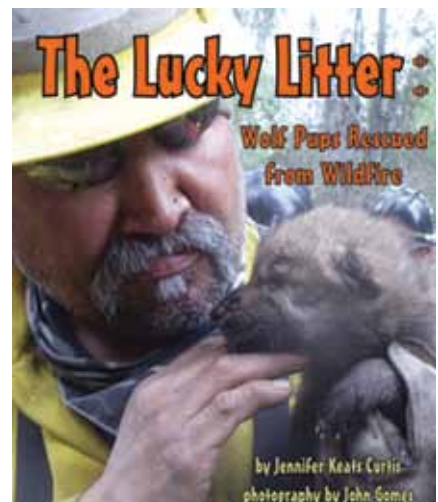
# Table of Contents

---

3	How to Use This Activity Guide (General)
4	What Do Children Already Know?
5	Pre-Reading Questions
6	Comprehension Questions & Writing Prompts
7	Language Arts & Science: Basic Needs
8	Cross-Curricular Vocabulary Activities
9	Word Bank
10	Cross-Curricular Silly Sentences
11	Language Arts: Sequence Sentence Strips
13	Language Arts: Homonyms
14	Word Search
15	Vertebrate Classes
16	Dichotomous (Yes/No) Key
17	Food Chains
18	Science Journal (Vocabulary)
20	True or False?
21	Math: Counting Wildfires
22	Answers
24	Appendix A—"What Children Know" Cards
25	Appendix B—Venn Diagram
26	Appendix C—Vocabulary Cards

Copyright 2015 © Arbordale Publishing  
These activities may be copied for  
personal and non-commercial use in  
educational settings.  
[www.ArbordalePublishing.com](http://www.ArbordalePublishing.com)

Arbordale Publishing  
Mt. Pleasant, SC 29464



by Jennifer Keats Curtis  
photography by John Gomes

# How to Use This Activity Guide (General)

---

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 nearly 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 are 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) 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, aquarium, 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.

# 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.”

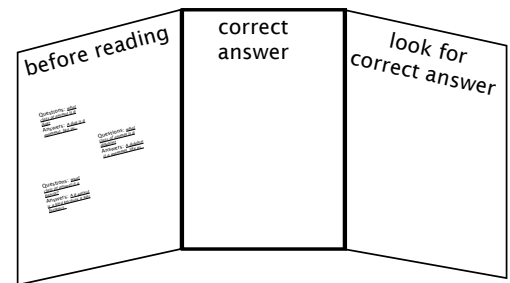
Do the children have any more questions about the subject? If so, write them down to see if they are answered in the book.

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 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

---

1. How do wildfires affect animals that live in the forest?
2. Where do wolves live?
3. Do baby wolves need their parents?
4. What do baby wolves eat? What do adult wolves eat?
5. How do zoos help rescued animals?
6. Do baby wolves howl just like adult wolves?
7. What do wolves do for fun?
8. How do wolf packs work?
9. Why do some rescued animals go to the zoo and not back into the wild?
10. How do zoos keep wild animals happy?



# Comprehension Questions & Writing Prompts

---

*Explain major differences between books that tell stories and books that give information, (paired fiction & For Creative Minds non-fiction)*

*Identify basic similarities in and differences between two texts on the same topic. (story versus For Creative Minds non-fiction component)*

*Compare and contrast the most important points presented by two texts on the same topic. (story versus For Creative Minds non-fiction component)*

*With prompting and support, identify basic similarities in and differences between two texts on the same topic.*

*Ask and answer questions about key details in a text read aloud or information presented orally or through other media.*

*Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.*

*Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.*

*Retell stories, including key details, and demonstrate understanding of their central message or lesson.*

*Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.*

1. Who rescued the baby wolf pups?
2. How did the vets help the pups? Why did they need medicine?
3. What did the baby wolves play with?
4. How did the wolves change as they grew from babies to adults?
5. What is the alpha of a wolf pack? Who were the alphas in this pack?
6. What zoo do the wolves live in now?
7. What is quarantine? Why did the wolves have to be in quarantine when they first moved to their new zoo?
8. Why do you think the zookeepers sprayed special scents for the wolves?
9. How can you help prevent wildfires in order to make sure wolves do not lose their natural habitat?
10. In what ways are these wolves similar to your or your friends' dogs? In what ways are they different?

# Language Arts & Science: Basic Needs

---

*Objective: Describe the basic needs of living things and how they are met.*

*Plants need water, oxygen, food, light and space to grow and reproduce; animals need water, oxygen, food, and shelter/space to grow and reproduce.*

Wolves are animals, so they need water, oxygen, food, and shelter in order to survive. Re-read the story and write down any words that relate to how the wolves meet their basic needs.

<b>Food</b>	
<b>Water</b>	
<b>Oxygen</b>	
<b>Shelter</b>	

If not mentioned in the text, are there any indications in the illustrations of how these needs are met? Can you describe, draw, or write an explanation of how the needs are met?

# Cross-Curricular Vocabulary Activities

---

## *Objective Core Language Arts:*

*Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content.*

*Identify new meanings for familiar words and apply them accurately (e.g., duck is a bird & the verb to duck).*

*Use words & phrases acquired through conversations, reading/being read to, and responding to texts.*

*Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade-level topic or subject area.*

*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.*

**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. It is helpful to project an illustration on a whiteboard. Use eBook or book preview found at [www.ArbordalePublishing.com](http://www.ArbordalePublishing.com).

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.

**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 (on the next page). Leaving the words posted (even on a refrigerator at home) allows the children to see and think about them frequently.

**Using the Words:** 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.
- 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.

**Silly Sentence Structure Activity:** This "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 correct information in the book.



# Word Bank

Build a word bank using words found in the story or For Creative Minds.

Adjective	Noun			Verb
hazy	leader	smoke	quill	raced
blue	moose	firefighter	syringe	examined
little	deer	ball	vet	climbed
black	elk	fluff	bottle	wobbled
deep	bowl	tail	medicine	walked
fluffy	alpha	eye	adult	needed
small	Zoo	den	heap	drank
three	quarantine	hole	enclosure	checked
hungry	antler	track	attention	slept
special	scent	dirt	keeper	touch
healthy	toy	stick	tree	see
sharp	fuzz	hair	pack	smell
brown				hear
yellow				howled
awake				hold
noisy				play
young				chomped
several				gnaw
permanent				grew
short				hunt
open				growl
fuzzy				mature
				fought
				spray

# Cross-Curricular Silly Sentences

---

1. What was that \_\_\_\_\_ black ball of \_\_\_\_\_? A bear? No, that was definitely a \_\_\_\_\_.  
adjective noun
2. The small, \_\_\_\_\_ babies \_\_\_\_\_ rather than \_\_\_\_\_, but their \_\_\_\_\_s were open.  
adjective verb noun
3. The \_\_\_\_\_ pups \_\_\_\_\_ special milk out of a \_\_\_\_\_.  
adjective verb noun
4. They \_\_\_\_\_ in a \_\_\_\_\_ as if they were still in their \_\_\_\_\_.  
verb noun noun
5. Because the wolves were so \_\_\_\_\_, they \_\_\_\_\_ lots of \_\_\_\_\_.  
adjective verb noun
6. They \_\_\_\_\_ed with toys, and they \_\_\_\_\_ on them.  
verb verb
7. Baby \_\_\_\_\_ began falling out. Adult \_\_\_\_\_ grew in.  
noun noun
8. Wolves live in \_\_\_\_\_s. They \_\_\_\_\_ together, \_\_\_\_\_ together, and \_\_\_\_\_ together. But all packs have a \_\_\_\_\_ and rankings.  
noun verb verb verb noun
9. Gannett and X-Ray became the \_\_\_\_\_s.  
noun
10. The pups moved to their \_\_\_\_\_ home at the Minnesota \_\_\_\_\_ once they were nine weeks old and very \_\_\_\_\_.  
adjective noun adjective

# Language Arts: 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.

*Objective Core Language Arts:*

*Use temporal words and phrases to signal event order.*

*Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.*

First, a firefighter found the baby wolves in the burnt forest.

He called for help, and wildlife biologists took the pups to the Alaska Zoo.

Once the pups were at the zoo, the vets took care of them until they were healthy again.

After they got healthy, the baby wolves lived outside and learned to play and howl like the other wolves.

As the pups grew, their fur and eyes changed.

After their fur changed, their teeth grew in, and they began to eat meat.

When the wolves got a little older, they moved to the Minnesota Zoo.

Now, the wolves are living happily in their wolf pack at the zoo.

# Language Arts: Homonyms

---

Some words are spelled the same and sound the same when spoken out loud, but have two different meanings. These words are called **homonyms**. An example of a homonym is the word **litter**.

A. Litter (noun): A group of animals born to the same mother at the same time

B. Litter (noun): Trash or garbage lying around where it shouldn't be, creating a messy area

Identify the definition of litter being used in the following sentences by putting an A (for the first definition) or a B (for the second definition) in the blank after each sentence.

1. The litter of wolves was born in April. \_\_\_\_
2. I am going to pick up litter by the road today. \_\_\_\_
3. Do you think the litter is ready to hunt yet? \_\_\_\_
4. The litter drinks milk from the mother. \_\_\_\_
5. The litter makes the beach look messy. \_\_\_\_
6. If you see litter, put it in the trash. \_\_\_\_
7. That litter is so cute! \_\_\_\_
8. The ocean is full of litter. \_\_\_\_
9. Do you see the that litter's whiskers? \_\_\_\_
10. Pick up that litter! It looks awful. \_\_\_\_

# 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	d	w	i	l	d	f	i	r	e	p
2	o	q	h	e	r	l	p	k	g	d
3	l	p	c	n	a	h	o	w	l	e
4	h	a	w	c	y	j	h	l	h	n
5	u	c	p	l	r	t	d	x	a	s
6	n	k	z	o	o	e	w	o	l	f
7	g	k	s	s	t	r	e	i	p	a
8	r	i	q	u	i	l	l	s	h	q
9	y	t	a	r	s	w	c	x	a	n
10	s	z	g	e	x	h	u	n	t	v

wolf  
wildfire  
zoo  
hungry  
alpha  
quills  
den  
enclosure  
howl  
hunt  
pack

# Vertebrate Classes

*Objective: Compare structures (e.g., wings vs. fins vs. legs; gills vs. lungs; feathers vs. hair vs. scales) that serve similar functions for animals belonging to different vertebrate classes*

## Mammals:

hair, fur, whiskers, or quills 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

## 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

*Warm-blooded animals make their own heat and have a constant body temperature*

*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.

# Dichotomous (Yes/No) Key

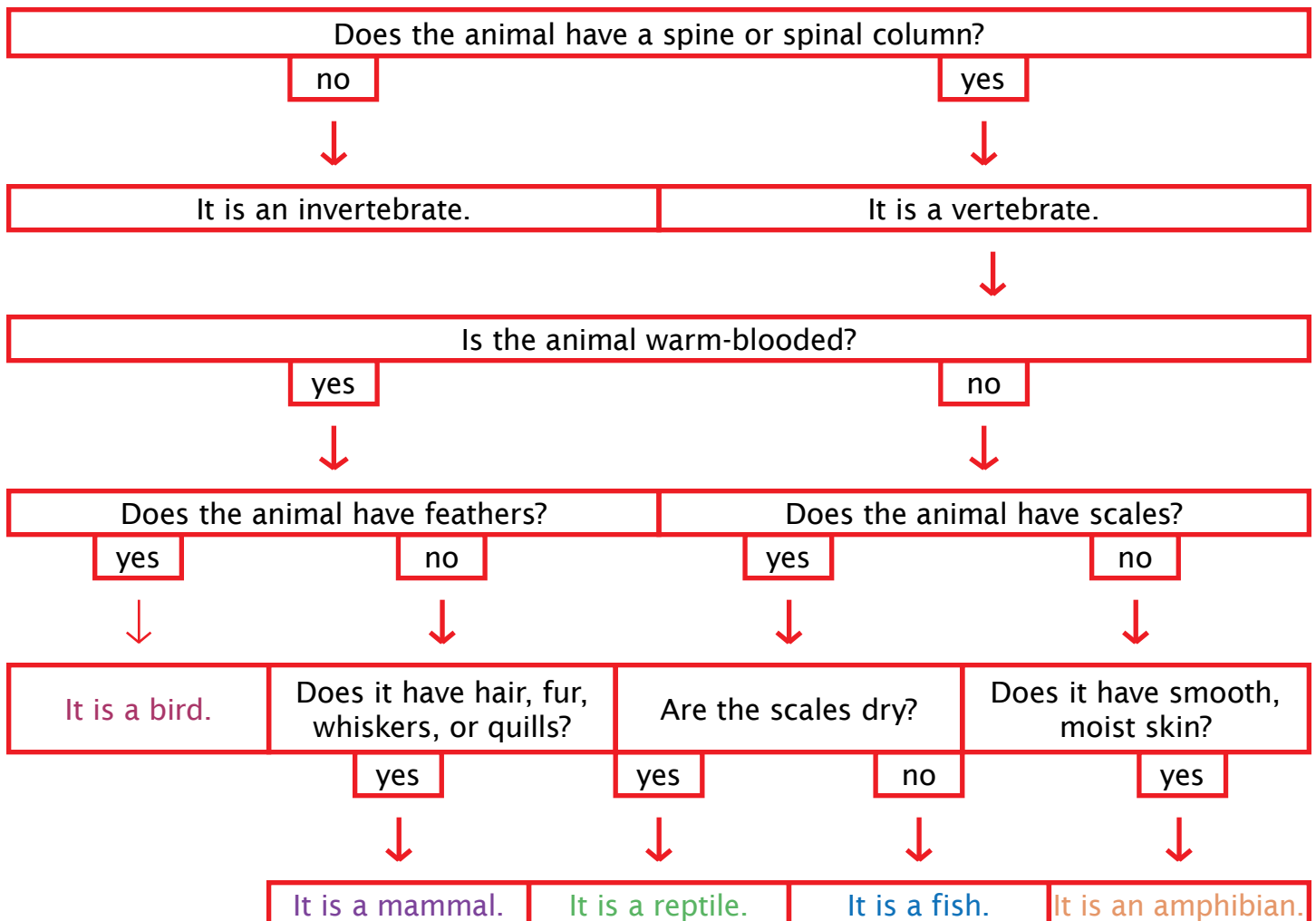
A dichotomous key helps to sort (classify) animals. These keys work by asking yes or no questions. Each answer leads to another yes or no question, until the animal class is identified. There are five classes of animals with backbones (vertebrates): fish, reptiles, amphibians, birds, and mammals. Use the information found in the book to match the animal to its classification.

*Objective: Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed.*

*Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).*

*Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.*

Use the chart to figure out what kind of animal a wolf is.





# Food Chains

*Objective: Use observations to describe patterns of what plants and animals (including humans) need to survive.*

*Develop a model to describe the movement of matter among plants and animals.*

Put the food chain in order, with each predator above its prey. When you put the plants and animals in the correct order, you will spell out the name of the mystery predator at the top of the food chain.

M

Moose are herbivores. Their diet varies depending on the season and what kind of food is available, but they only eat plants. They can eat up to 26 pounds of food per day!



N

The sun provides energy to plants through photosynthesis, the process by which plants convert light to energy. The sun gives enough energy for every plant in the world to “eat”!



U

Wolves are among the largest carnivores in their habitat, which puts them so near the top of their food chain. They eat mainly hoofed animals, but they will also eat any kind of dead animal they find.



H

This predator is surprisingly not a carnivore, but an omnivore. It is one of the most dangerous of predators because it does not always kill out of necessity -- it sometimes kills for pure sport.

?

A

Willow leaves and branches are popular food for many animals, including rabbits, which like to eat their bark, and even some birds.



Answer: Human

# Science Journal (Vocabulary)

---

## keystone species

my definition

my drawing

## ecosystem

my definition

my drawing

# alpha

my definition

my drawing

# wildfire

my definition

my drawing

# True or False?

---

*Objective: Critical thinking skills*

Circle whether you think the statement is true or false:

1. T/F A keystone species is important to an ecosystem.
2. T/F Newborn wolves eat meat.
3. T/F Baby wolves sleep in a heap in their den.
4. T/F Wolves cannot howl when they are young.
5. T/F Wolf pups grow new hair as they become older.
6. T/F Wolves live alone.
7. T/F The alpha of a pack is its leader.
8. T/F Wolves' eyes are blue their entire life.
9. T/F When wolves disappeared from Yellowstone, the deer and elk populations grew.
10. T/F It is safe to have a bonfire in a dry area.

# Math: Counting Wildfires

In 2014, there were 393 wildfires in Alaska, where *The Lucky Litter* takes place. Look at this chart of a breakdown of causes of the wildfires, then answer the questions below.

What started the fire?	Number of fires caused	Total area burned
Debris burning	97	112 acres
Miscellaneous	91	21,657 acres
Campfires	68	436 acres
Lightning	50	10,630.6 acres
Undetermined	22	48.4 acres
Incendiary (on purpose)	20	19.6 acres
Equipment	19	8 acres
Children	7	1.7 acres
Unknown	4	3.3 acres
Arson	3	0.3 acres
Under investigation	2	196,610.2 acres
Structure fire	2	0.7 acres
Powerline	1	1 acre
Smoking	1	0.1 acres
Vehicle	1	0.1 acres
Fireworks	1	0.1 acres

An acre is just a little smaller than a football field!

1. What caused the most wildfires?
2. What natural (non-human) cause was responsible for the most wildfires?
3. Which caused more fires, campfires or arson?
4. Which caused a bigger area to burn, fireworks or equipment?
5. How many wildfires burned fewer than 1 acre total?
6. If 68 wildfires were caused by campfires, and those wildfires burned 436 total acres, how many acres did each fire burn on average?
7. How many acres did each fire caused by lightning burn on average?
8. How many total fires were caused by children and campfires?
9. How many total fires were caused by powerlines, equipment, and lightning?
10. How many total acres were burned by undetermined and incendiary causes?

# Answers

## Silly Sentences:

1. What was that little black ball of fluff? A bear? No, that was definitely a tail.
2. The small, fuzzy babies wobbled rather than walked, but their eyes were open.
3. The hungry pups drank special milk out of a bottle.
4. They slept in a heap as if they were still in their den.
5. Because the wolves were so young, they needed lots of attention.
6. They played with toys, and they chomped on them.
7. Baby fuzz began falling out. Adult hair grew in.
8. Wolves live in packs. They play together, hunt together, and sleep together. But all packs have a leader and rankings.
9. Gannett and X-Ray became the alphas.
10. The pups moved to their permanent home at the Minnesota Zoo once they were nine weeks old and very healthy.

## Word Search:

	A	B	C	D	E	F	G	H	I	J
1		w	i	l	d	f	i	r	e	
2				e						d
3		p		n		h	o	w	l	e
4	h	a		c						n
5	u	c		l					a	
6	n	k	z	o	o		w	o	l	f
7	g			s				i	p	
8	r		q	u	i	l	l	s	h	
9	y			r					a	
10				e		h	u	n	t	

## True or False?:

1. T/F A keystone species is important to an ecosystem.
2. T/F Newborn wolves eat meat.  
Newborn wolves do not have sharp teeth yet, so they drink milk.
3. T/F Baby wolves sleep in a heap in their den.
4. T/F Wolves cannot howl when they are young.  
Wolves begin to howl at an early age.
5. T/F Wolf pups grow new hair as they become older.
6. T/F Wolves live alone.  
Wolves live in packs.
7. T/F The alpha of a pack is its leader.
8. T/F Wolves' eyes are blue their entire life.  
Wolves' eyes are blue when they are babies, but they later change to golden yellow.
9. T/F When wolves disappeared from Yellowstone, the deer and elk populations grew.
10. T/F It is safe to have a bonfire in a dry area.  
NEVER start any sort of fire in a dry area. This could start a wildfire.

## Math: Counting Wildfires

1. Debris burning caused the most wildfires.
2. Lightning
3. Campfires
4. Equipment
5. Five wildfires burned fewer than 1 acre total.
6. 6.4 acres
7. 212.6 acres
8. 75 fires
9. 70 fires
10. 68 acres

# Appendix A—“What Children Know” Cards

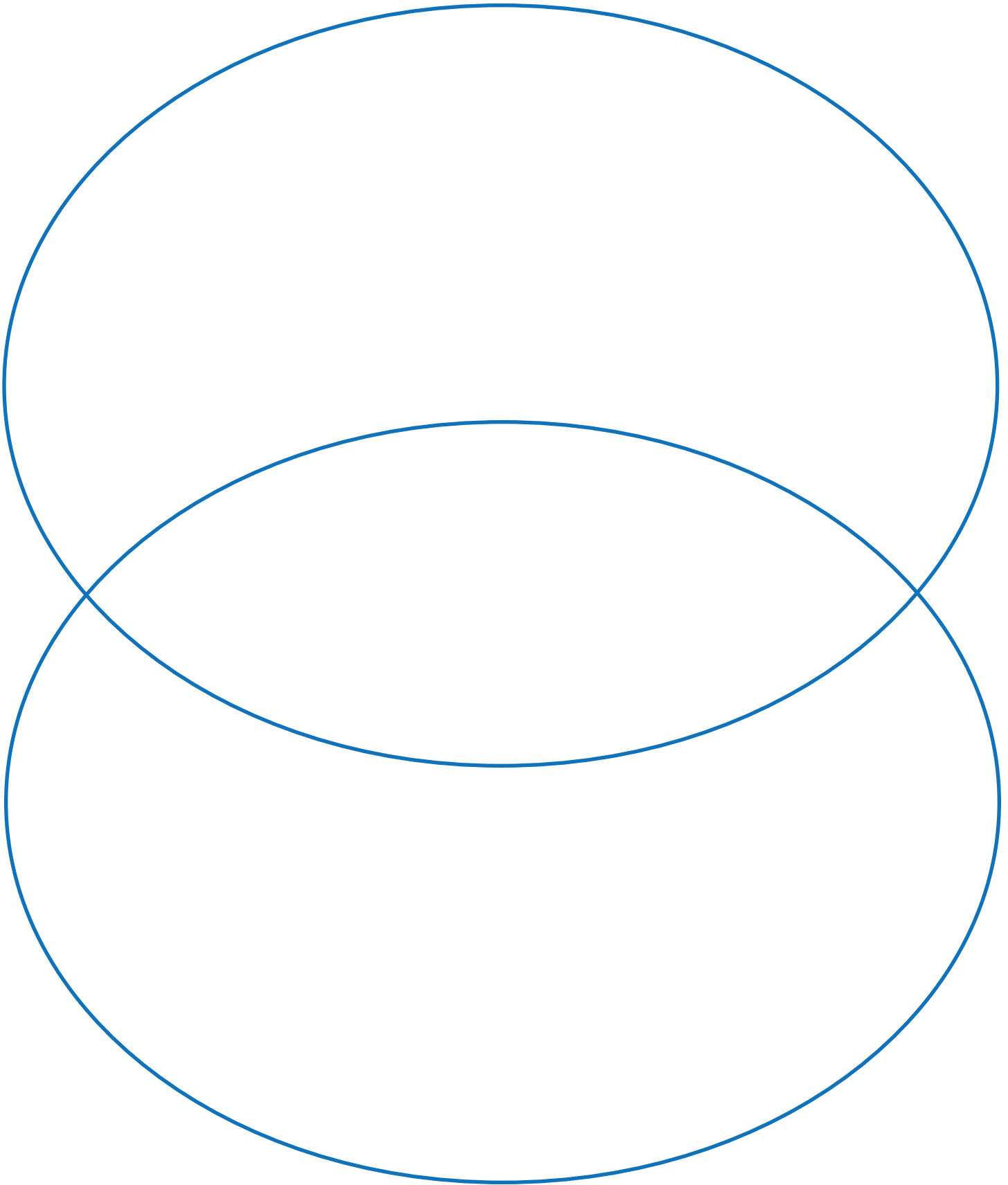
---

<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

Compare and contrast wolves and moose.



## Appendix C—Vocabulary Cards

**biologist**

**den**

**syringe**

**infirmary**

**enclosure**

**pack**

**alpha**

**exhibit**

**scent**

**litter**