

*A CCSS & NGSS Aligned
Discussion/Activity Guide for
Grades PK-2*

WHAT'S THIS TAIL SAYING?

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Written by Carolyn Combs
Illustrated by Cathy Morrison
Published by Dawn Publications

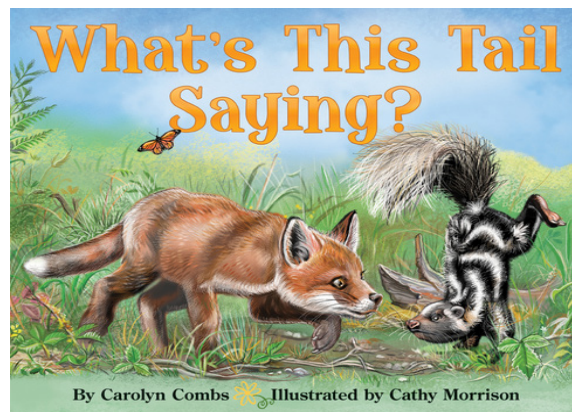
Animal tails are talking! Every shake and shiver, rattle and splash is saying something. But what is it? Look and listen for the clues on one page. Then go to the next page to discover the message. A fascinating glimpse into the world of animal communication! "Explore More" pages will delight kids with photos and facts, while teachers and parents will appreciate STEAM activity suggestions.

Guide created by
Debbie Gonzales, MFA



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Pre-Reading Discussion

Meet Author Carolyn Combs:

- Carolyn’s passion for the natural world began when she was a child. She has fond memories of camping beside a noisy beaver dam, of visiting a local petting farm, and waiting for the peacock to fan out his tail. Consider how childhood memories such as these might inspire her to write a book such as *WHAT’S THIS TAIL SAYING?*
- Carolyn loves to ask questions and seek answers about the extraordinary lives of animals and plants and the scientists who study them. Before Carolyn began writing books for children, she worked as a molecular biologist. Her job then was to develop an understanding of how biological molecules come together. Determine how her prior job as a biologist could inform her ability to write nonfiction books for young readers.
- Carolyn’s deep desire is to connect children with nature, inspiring them to ask their own questions. Explain how writing a book such as *WHAT’S THIS TAIL SAYING?* might help Carolyn make the connection she desires to do.



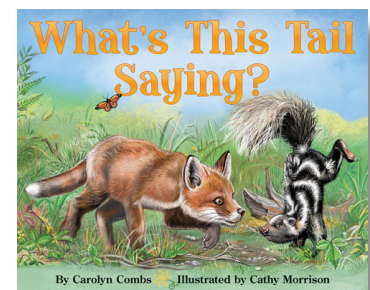
Meet Illustrator Cathy Morrison:

- Like Carolyn, illustrator Cathy Morrison is passionate about nature, science, and the environment. She loves to illustrate “creative nonfiction” picture books that read as a story while being based on facts. Determine how her fondness for nature may have prepared Cathy to illustrate *WHAT’S THIS TAIL SAYING?*
- Cathy lives in Colorado. She loves to experiment in growing a variety of vegetables, native perennials, and high altitude xeriscaping, which is the process of gardening with little water. Determine how her close connection with nature informs Cathy’s art work.
- Consider how Carolyn and Cathy’s shared appreciation for the natural world helped to create this remarkable picture book. Imagine how their passion for nature served to inform the themes, setting, plot, and illustrations in *WHAT’S THIS TAIL SAYING?*



Consider the cover of the book:

- Identify the types of animals featured on the cover of the book. What is their relationship like? How do you know?
- Have you ever seen a picture of a skunk balanced on its forepaws? Why do you think it is doing so in this illustration?
- To communicate means to speak to one another, express one’s point of view, or to have a talk. *WHAT’S THIS TAIL SAYING?* examines the messages animals communicate with their tails. Analyze the communication taking place in this illustration. What is the skunk saying to the fox? How do you know?
- Predict the types of discussions animals might have with their tails. What sorts of situations would cause an animal to express themselves by the use of their tails?

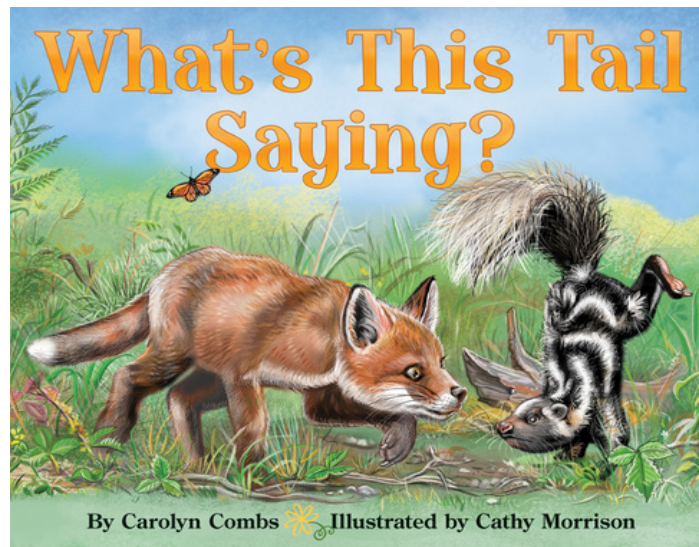


Post-Reading Discussion

- The word *threatened* means scared, frightened, or intimidated. If an animal feels threatened, they are worried that they might experience some harm in a dangerous situation. Consider how the skunk, rattlesnake, the phoebe, and the beaver respond to threatening situations. How are their reactions similar and different from one another?
- Determine how effective communication with their tails wards off being attacked by their predators.



- The word *threatened* means scared, frightened, or intimidated. If an animal feels threatened, they are worried that they might experience some harm in a dangerous situation. Consider how the skunk, rattlesnake, and the beaver respond to threatening situations. How are their reactions similar and different from one another?
- Interpret how their tails issue threats to their predators.



Pinwheel Analysis

Objective: Describe the relationship between illustrations and the story in which they appear.

Materials:

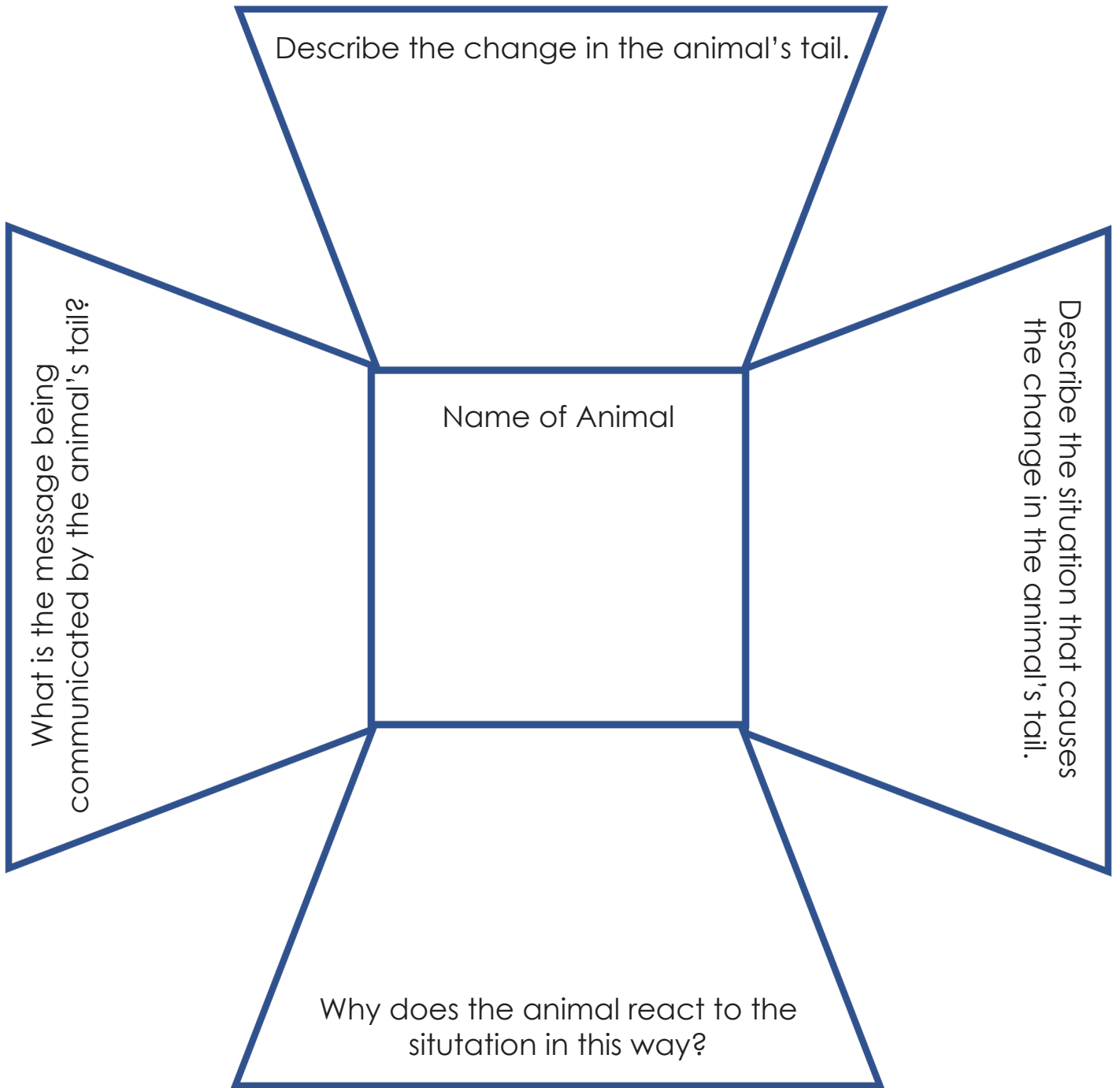
- WHAT'S THIS TAIL SAYING?, the book
- Cause & Effect Pinwheel template (Guide, pg. 6)
- Pencil
- Writing materials

Procedure:

- Closely consider the vignettes describing the changes in each animal's tail. Identify the situations in which the changes occur, the effect the change brings about, and the message being communicated.
- Instruct students to choose an animal to examine. Using the Cause & Effect Pinwheel template as a guide to record in the spaces provided being:
 - The animal's name
 - Describe the changes in the animal's tail
 - Describe the situation that causes the change in the animal tail
 - Explain why the animal reacts to the situation in this way
 - Explain the message being communicated by the animal's tail
- Instruct students to write and illustrate an essay using the information gathered on the Cause & Effect Pinwheel template.
- Encourage students to share their work with the class.



Cause & Effect Pinwheel



Vocabulary Match Up

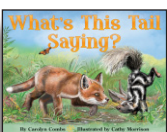
Objective: Use illustrations, photographs, and details in a story to describe its characters or events.

Materials:

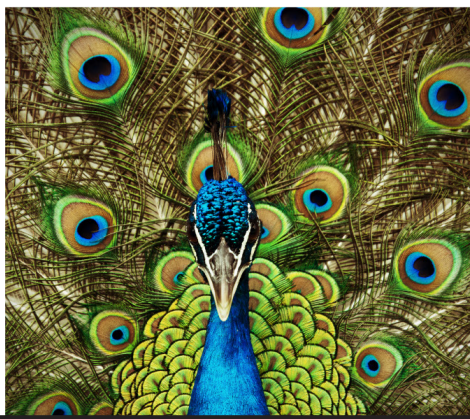
- WHAT’S THIS TAIL SAYING?, the book
- The Vocabulary Match Up Game Board (Guide, pg. 8)
- The Vocabulary Match Up Game Cards (Guide, pg. 9)
- Cardstock
- Scissors
- 9 Game pieces such as pennies, buttons, or beans to serve as place markers

Procedure:

- Each student is to create their own Vocabulary Match Up Game to be used in play together in groups of 2 to 4.
- Print the Vocabulary Match Up Game Board and Game Cards on cardstock. Use scissors to trim around the border of the game board and cards.
- Instruct students to shuffle all of the players’ cards together. Play them in a stack face down on the table.
- The first player is to pick a card from the top of the stack and read the definition aloud. Should there be a match, the player is to place a game piece on the corresponding photo. If not, the player is to miss a turn.
- Continue in this manner until one player’s board is completely covered by game pieces.
- The first player to cover their board with game pieces is the winner of the game.
- Matches can be verified using the Vocabulary Match Up Game Answers grid as a reference.



Vocabulary Match Up



Vocabulary Match Up Labels

SKUNKS

Kick up into a handstand when they feel threatened.

BEAVER

When predators approach, beavers dive into the pools.

MARMOSETS

Raise the hairs on their tails to show fear and ask for comfort.

RATTLESNAKE

Rattle their tails as a warning, letting the other animal know where it is.

PEACOCKS

A big, bright vibrating train shows a male's good health.

ELEPHANTS

To show excitement and keep the play going, they raise their tails.

SKINKS

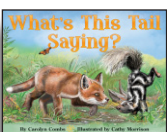
Shed their tails for emergency escapes.

PHOEBES

Pump their tails at predators for an element of surprise.

DOLPHINS

Use tail splashes, called lobtails, to talk to other dolphins nearby.



Compare & Contrast Measurements

Objective: To describe, compare, and contrast measurable attributes.

Materials:

- WHAT IS THIS TAIL SAYING?, the book
- Animal Measurement Cards (Guide, pg. 10)
- WHAT IS THIS TAIL SAYING? Measurement Graph (Guide, pg. 11)
- Compare & Contrast Measurement Worksheet (Guide, pg. 12)
- WHAT IS THIS TAIL SAYING? Measurement Graph Answer Guide (Guide, pg. 13)
- Compare & Contrast Measurement Worksheet Answers (Guide, pg. 14)
- Cardstock
- Scissors
- Ruler
- Marker

Procedure:

- Print Animal Measurement Cards on cardstock. Use scissors to trim around the borders of the cards.
- Discuss the animals listed on the Measurement Graph. Locate their vignettes in the book.
- Select an Animal Measurement Card. Using the ruler and marker, record the measure on the bar graph. Continue until all of the animal's tail measurements have been recorded.
- Use recorded measurement as reference to complete the Compare & Contrast Measurement Worksheet.
- Check calculations by using the Measurement Graph Answer Guide and the Compare & Contrast Measurement Worksheet Answers sheet.
- Share your work with the class.

Animal Tail Measurement Cards

A skunk's tail measures approximately 12 inches long.

A beaver's tail measures approximately 12 inches long.

A skink's tail measures approximately 6 inches long.

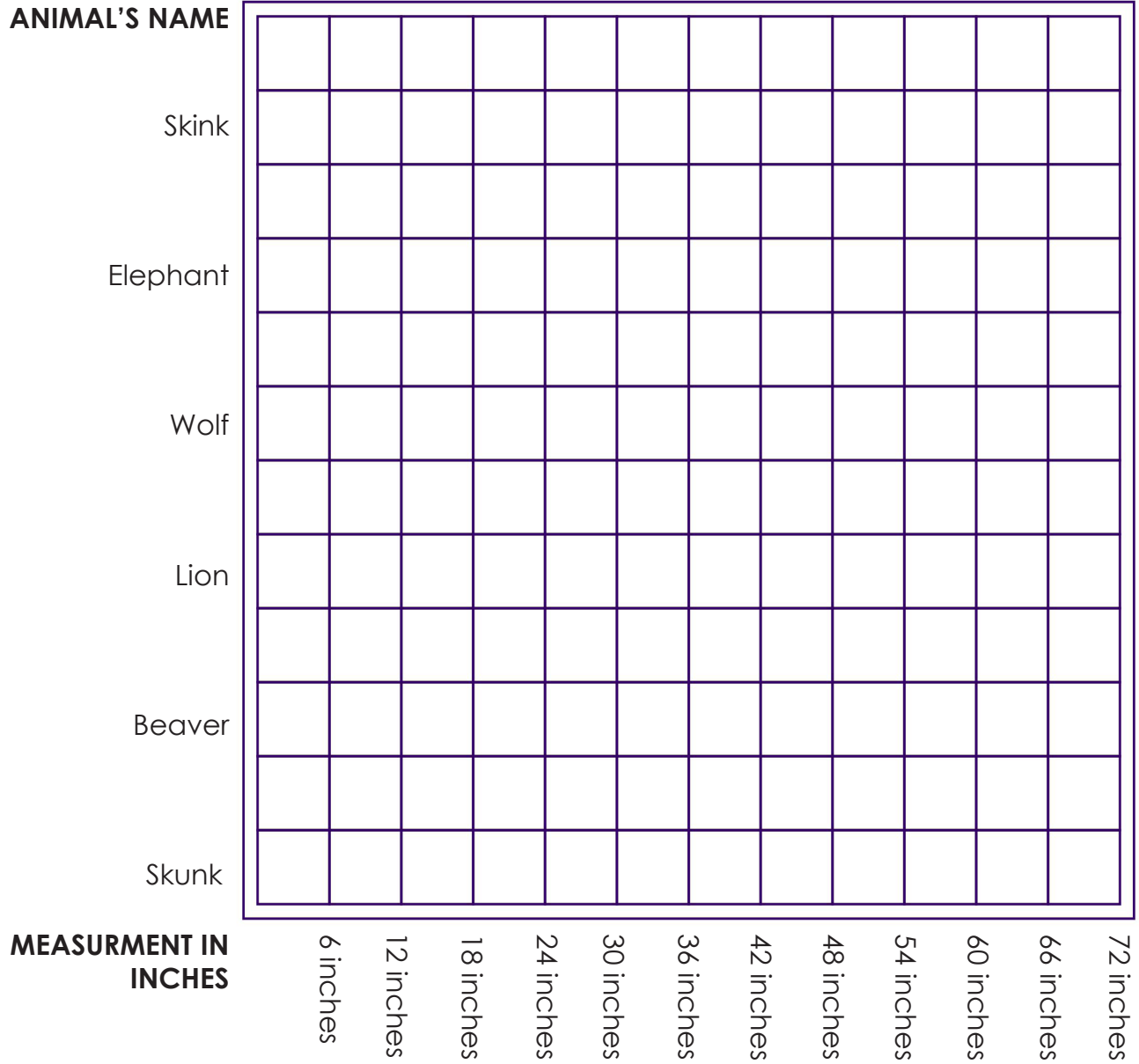
A lion's tail measures approximately 36 inches long.

A wolf's tail measures approximately 24 inches long.

A elephant's tail measures approximately 48 inches long.



WHAT'S THIS TAIL SAYING? Measurement Graph



Compare & Contrast Measurements

Name the animal with the longest tail.

How long is the longest tail? _____

Name the animal with the shortest tail.

How long is the shortest tail? _____

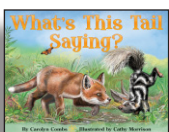
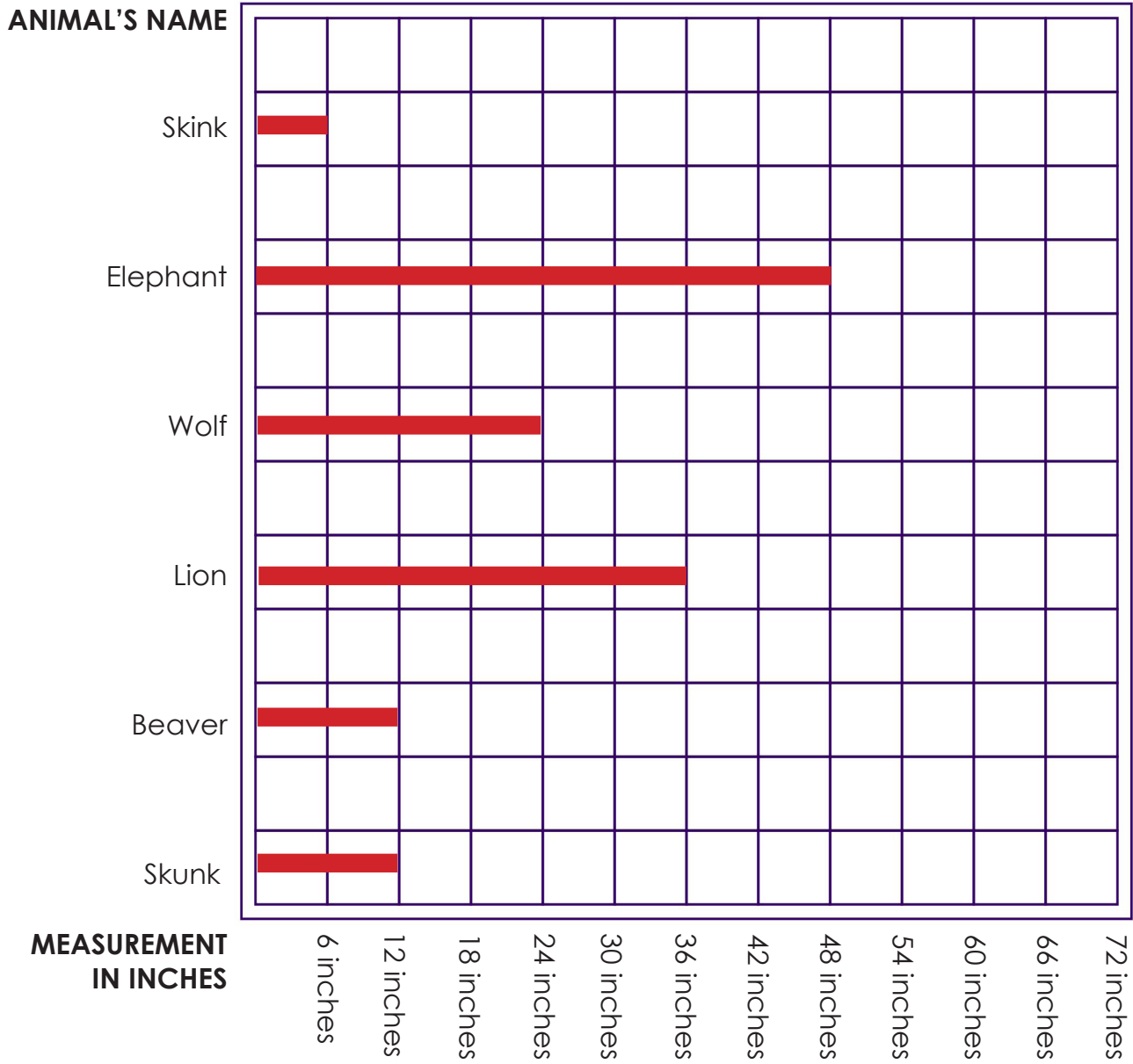
How much longer is the longest than the shortest tail?

Name the animals whose tails measure the same.

_____ and _____



WHAT'S THIS TAIL SAYING? Measurement Graph Answers



Compare & Contrast Measurements Answer

Name the animal with the longest tail.

elephant

How long is the longest tail? 48 inches

Name the animal with the shortest tail.

skink

How long is the shortest tail? 6 inches

How much inches more is the longest than the shortest tail?

42 inches

Name the animals whose tails measure the same.

beaver

and

skunk



Common Core State Standards Alignment

		Discussion	Perspective Pinwheel	Vocabulary Match Up	Compare & Contrast
English Language Arts Standards » Reading: Literature					
CCSS.ELA-LITERACY.RL.K.1	With prompting and support, ask and answer questions about key details in a text.	•	•	•	•
CCSS.ELA-LITERACY.RL.K.3	With prompting and support, identify characters, settings, and major events in a story.	•	•	•	•
CCSS.ELA-LITERACY.RL.K.4	Ask and answer questions about unknown words in a text.	•		•	
CCSS.ELA-LITERACY.RL.K.6	With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	•			
CCSS.ELA-LITERACY.RL.K.7	With prompting and support, describe the relationship between illustrations and the story in which they appear.	•	•	•	•
CCSS.ELA-LITERACY.RL.K.9	With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.	•	•	•	•
CCSS.ELA-LITERACY.RL.K.10	Actively engage in group reading activities with purpose and understanding.	•	•	•	•
CCSS.ELA-LITERACY.RL.1.1	Ask and answer questions about key details in a text.	•	•	•	•
CCSS.ELA-LITERACY.RL.1.3	Describe characters, settings, and major events in a story, using key details.	•	•	•	
CCSS.ELA-LITERACY.RL.1.6	Identify who is telling the story at various points in a text.	•	•		
CCSS.ELA-LITERACY.RL.1.7	Use illustrations and details in a story to describe its characters, setting, or events.	•	•	•	•
CCSS.ELA-LITERACY.RL.1.9	Compare and contrast the adventures and experiences of characters in stories.	•	•	•	•
CCSS.ELA-LITERACY.RL.1.10	With prompting and support, read prose and poetry of appropriate complexity for grade 1.	•	•	•	•
CCSS.ELA-LITERACY.RL.2.1	Ask and answer such questions as <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i> , <i>why</i> , and <i>how</i> to demonstrate understanding of key details in a text.	•	•	•	•
CCSS.ELA-LITERACY.RL.2.3	Describe how characters in a story respond to major events and challenges.	•	•	•	•
CCSS.ELA-LITERACY.RL.2.6	Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.	•	•		
CCSS.ELA-LITERACY.RL.2.7	Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.	•	•	•	•
English Language Arts Standards » Writing					
CCSS.ELA-LITERACY.W.K.2	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.		•		
CCSS.ELA-LITERACY.W.K.8	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.		•		
CCSS.ELA-LITERACY.W.1.2	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.		•		
CCSS.ELA-LITERACY.W.1.8	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.		•		



		Discussion	Perspective Pinwheel	Vocabulary Match Up	Compare & Contrast
English Language Arts Standards » Writing					
CCSS.ELA-LITERACY.W.2.2	Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.		•		
CCSS.ELA-LITERACY.W.2.8	Recall information from experiences or gather information from provided sources to answer a question.		•		
English Language Arts Standards » Speaking & Listening					
CCSS.ELA-LITERACY.SL.K.1	Participate in collaborative conversations with diverse partners about <i>kindergarten topics and texts</i> with peers and adults in small and larger groups.	•	•	•	•
CCSS.ELA-LITERACY.SL.K.2	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.	•	•	•	•
CCSS.ELA-LITERACY.SL.K.3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	•	•	•	•
CCSS.ELA-LITERACY.SL.K.4	Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.	•	•	•	•
CCSS.ELA-LITERACY.SL.K.6	Speak audibly and express thoughts, feelings, and ideas clearly.	•	•	•	•
CCSS.ELA-LITERACY.SL.1.1	Participate in collaborative conversations with diverse partners about <i>grade 1 topics and texts</i> with peers and adults in small and larger groups.	•	•	•	•
CCSS.ELA-LITERACY.SL.1.2	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	•	•	•	•
CCSS.ELA-LITERACY.SL.1.4	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	•	•	•	•
CCSS.ELA-LITERACY.SL.1.6	Produce complete sentences when appropriate to task and situation.	•	•	•	•
CCSS.ELA-LITERACY.SL.2.1	Participate in collaborative conversations with diverse partners about <i>grade 2 topics and texts</i> with peers and adults in small and larger groups.	•	•	•	•
CCSS.ELA-LITERACY.SL.2.2	Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.	•	•	•	•
CCSS.ELA-LITERACY.SL.2.6	Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.	•	•	•	•
Standards for Mathematical Practice					
CCSS.MATH.CONTENT.K.MD.A.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.				•
CCSS.MATH.CONTENT.K.MD.A.2	Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i>				•
CCSS.MATH.CONTENT.K.MD.B.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count				•
CCSS.MATH.CONTENT.1.MD.C.4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.				•
CCSS.MATH.CONTENT.2.MD.A.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.				•



Next Generation Science Standards Alignment

		Discussion	Perspective Pinwheel	Vocabulary Match Up	Compare & Contrast
K-LS1-1 From Molecules to Organisms: Structures and Processes					
	<i>Use observations to describe patterns of what plants and animals (including humans) need to survive.</i>	•	•		•
	Analyzing and Interpreting Data: Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.	•	•		•
	Scientific Knowledge is Based on Empirical Evidence: Scientists look for patterns and order when making observations about the world.	•	•		•
	Patterns: Patterns in the natural and human designed world can be observed and used as evidence.	•	•		•
1-LS1-2 From Molecules to Organisms: Structures and Processes					
	<i>Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.</i>	•	•		•
	Obtaining, Evaluating, and Communicating Information: Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.	•	•		•
	Scientific Knowledge is Based on Empirical Evidence: Scientists look for patterns and order when making observations about the world.	•	•		•
	Patterns: Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.	•	•		•

