



# Plant and Animal Traits

## Wake Up With Whiskers



STEM Taught® Grade 4  
Next Generation Science

Molecules to Organisms: Structures and Processes 4-LS1-1.  
Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.





Made with  
recyclable paper

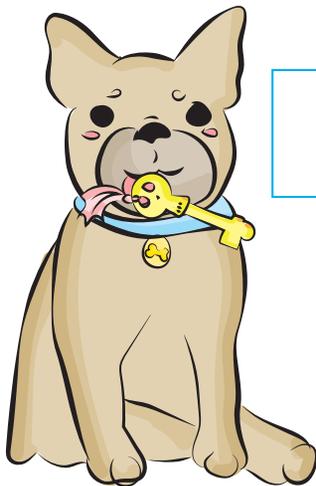
## Riddle

From the greatest of  
elephants, to the smallest  
of mice, everyone needs  
me to survive.

I can be a hot desert, or  
the frozen tundra. I can  
be a lush forest or cozy  
cave. You'll even find me  
underneath the ocean  
waves.

I hold plants and animals  
and I help them survive—  
and when they live in the  
'right' me, they will thrive!

What Am I?



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# WAKE UP WITH WHISKERS

## Part 1

### I wish I was a dog

Jovie was best friends with her dog Mable. Jovie liked to give Mable treats, and Mable licked Jovie with her big, wet tongue.

"Jovie, honey, it's time for bed," her mother called out.

"But, I don't want to go to bed!" Jovie said in disappointment. I want to stay awake like Mable."

*'Dogs are so lucky,' Jovie thought to herself. 'Dogs get to stay awake as late as they want to. Lucky Mable! I wish I was a dog!'*

Jovie then closed her eyes and before long, she was fast asleep.

The next thing she noticed, her mother was calling out to her.

"It's time to get up. Come get your breakfast, sweetie!"

Jovie smelled the most wonderful smell coming from the kitchen. She held her nose high and sniffed. She smelled bacon and eggs, and for some reason, it smelled more delicious than ever.

Jovie rolled out of bed. She looked down at her feet and jumped up in surprise! She had four, brown, furry feet. Behind her, she saw a cute, wiggly tail waving back and forth excitedly. Was it true? Could it be? She took one more careful look at herself. Yes, it was true. She certainly was a dog. *'I must be dreaming!'* Jovie thought to herself, but it all felt too real to be a dream.



What special traits, features or body parts does a dog have that could help it survive in the wild?

Think,  
Pair,  
Share!



## Part 2

# If I could only use a fork

Jovie quickly ran into the kitchen and jumped up on her chair and put her paws up on the table.

“No paws on the table, Missy,” said mother. “Eat quickly, but you must still eat like a lady.”

Jovie, stuck out her paw and set it on her fork. ‘*Oh my,*’ she thought to herself. ‘*How is this going to work?*’ She scooted her fork around the table but just couldn’t manage to pick it up.

The smell of the delicious food was making Jovie very impatient. She tried grabbing the fork with both her front paws. It didn’t work. She picked up the fork with her mouth and clenched it in her teeth. She scooped up some scrambled eggs—success! She held the eggs proudly on her fork.

‘*What now?*’ She thought to herself. With the fork handle in her mouth, how was she ever going to take a bite?

“You must stop playing with your food,” her mother demanded. “Surely, you will miss the bus if you don’t focus and eat your breakfast,” she scolded.

Jovie heard the sound of her school bus approaching. In a panic, she jumped up on the table and plopped her face right down into her plate of food.

“Dear me!” her mother exclaimed.

### **Play, “If I Only Had a Thumb!”**

Tape your thumbs against your hands so you cannot use them! Try using a fork, a plastic knife, or a spoon. How about chopsticks? Can you do it?



Use a fork!



## Part 3

# If I could only grasp a zipper

Jovie wasn't going to miss the bus today. She gobbled up all her food as quickly as she could. She barely chewed. The food was gone in about five seconds flat!

Jovie jumped off the table and ran to her backpack. She needed to zip it up before she ran out to catch her bus! She put her paws on the zipper and tried to grasp it between her toes. It was no use. She tried to clench the zipper with her teeth but could not manage to get it closed!

The bus was right outside her house. She quickly grabbed the backpack in her mouth and started running for the bus. The backpack was still unzipped, and as she ran, all her books fell out across the front lawn. Frustrated, she dropped the backpack and climbed up into her school bus.

'What a day!' she thought to herself. 'What am I going to do?' she worried. Just then, her brothers Callen and Caleb sat down next to her on the bus. They gave her a nice scratch behind the ear and she felt better immediately. She began to wag her cute, little wiggly tail.

### **Play, "If I Only Had a Thumb!"**

Tape your thumbs against your hands so you cannot use them! Try unzipping your backpack and then zipping it back up again.





School Bus

A+

pegs  
Math  
+  
-  
x  
÷

★

ELA

## Part 4

# If I could only hold a pencil

Once at school, Jovie jumped up into her chair and listened carefully to her teacher's instructions.

"It's time for handwriting practice," her teacher, Mrs. Thumbs announced. "I want to see you hold your pencil correctly and remember, your capital letters must be taller than your lowercase letters."

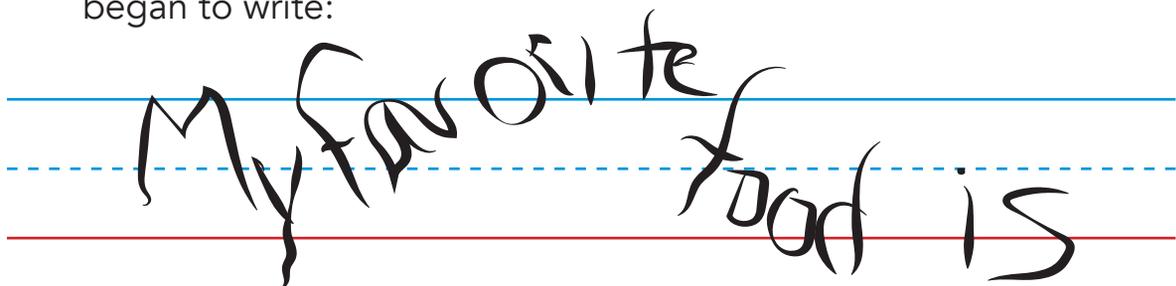
Jovie reached into her desk to get her pencil, but all she could manage to do was drop the pencil onto the floor. She jumped off her chair to try to get the pencil back.

"Jovie, sweetie, you must stay in your seat during our handwriting activity," Mrs. Thumbs said.

Jovie obediently tried to pick up her pencil by pinching it between both of her front paws. It was too hard for her to pick up the pencil. Before long, Jovie was pouncing on the pencil and all she could manage to do was push it across the floor.

"Jovie, honey, if you can't behave yourself, I'm going to have to take away three points for your disruptive behavior."

Horrified, Jovie stopped trying to pick up her pencil properly. Instead, she bit onto it with her mouth. Holding the pencil tightly in her teeth, she quickly jumped into her seat and began to write:



My favorite food is



$$3 + 2 = 5$$

Math time!

$$2 \times 4 = 8$$

$$3 \div 2 = 6$$

To write, she turned her head sideways. She was having a very difficult time seeing the page as she wrote on the paper.

Mrs. Thumbs walked around the room inspecting each student's wonderful handwriting. Jovie tried to do her very best.

She couldn't wait to hear what her Mrs. Thumbs would say about her handwriting.

"Jovie, honey," her teacher said. "Your writing is going all over the page. You must try to stay within the lines."

Jovie's face drooped in disappointment.

"And why are you holding the pencil in your mouth, my darling. Remember to hold your pencil like I taught you," her teacher reminded her.

This was turning out to be the worst day ever! Jovie did not want to continue the rest of the day as a dog anymore. She was having such a hard time doing things without her human hands and her useful thumbs! Her dog paws just weren't the same.

### **Play, "If I Only Had a Thumb!"**

Tape your thumbs against your hands so you cannot use them! Try writing, coloring and drawing without using your thumbs.



Write with a pencil!



## Part 5

# A good end to a bad day

"Class, class!" announced Mrs. Thumbs. "It's time for physical education! "Now we will begin our races around the school lawn! This is our class' Olympics!" she announced with a smile.

Jovie stood up and followed the rest of the class out on the school lawn. Jovie was excited again. She loved to race!

"On you mark!" her teacher called out.

Jovie stepped up to the starting line.

"Get set!" her teacher continued. "GO!"

Jovie began to run as fast as she could! She quickly passed all the children in her class, even the fastest students.

*'This is easy!' she thought to herself. 'I am so fast today! I love being a dog!' she thought.* She could feel the rush of the wind on her face. She ran so fast that she tore grass up with her paws. None of her classmates could believe it. Jovie raced around the soccer field two times in the same time it took for her classmates to finish only one lap.

Everyone lifted Jovie up into the air and cheered for her. She was the winner of Mrs. Thumbs' class Olympics.

She decided that being a dog wasn't so bad after all. It was actually a dream come true!

What makes a dog well adapted  
to running fast?

Think,  
Pair,  
Share!





## Part 6

# It was only a dream

The next thing she noticed was her mother calling out to her. "Jovie, it's time to get up. Come get your breakfast, sweetie!"

Then she smelled the most wonderful smell coming from the kitchen. Jovie held her nose high and sniffed at the air. It was bacon and eggs, and for some reason, this morning, the smell was even more delicious than ever.

She rolled out of bed onto the floor nervously, but surprisingly, everything felt completely normal this morning. She looked down at her hands and was immediately relieved to see her wiggly fingers and thumbs! This morning, she had two hands and two feet, and she was glad!

Jovie could tell that Mable was very happy to see her too because Mable's tail was wiggling back and forth.

### Meet Jovie and Mable!

Jovie is an adventurous girl and Mable is a lucky dog!!

In real life, they are best friends, and yes, this is how Mable really likes to sit.



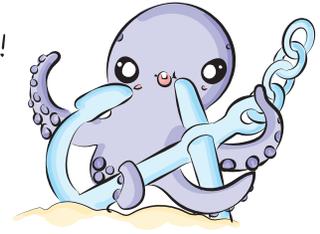


MAY							
1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	



# Lesson Anchor

Explore the Phenomenon!



## Play, "If I Only Had a Thumb!"

### Try these activities too!

So, did you think those activities were too easy? Try these activities too! Tape your thumbs against your hands so you cannot use them!



Pick up a coin!



Tie your shoes



Button a button



Take off your socks and put them on again

Which task was the easiest for you to do?

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Which task was the most challenging for you?

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Describe what was most difficult about doing these tasks without the use of your thumbs.

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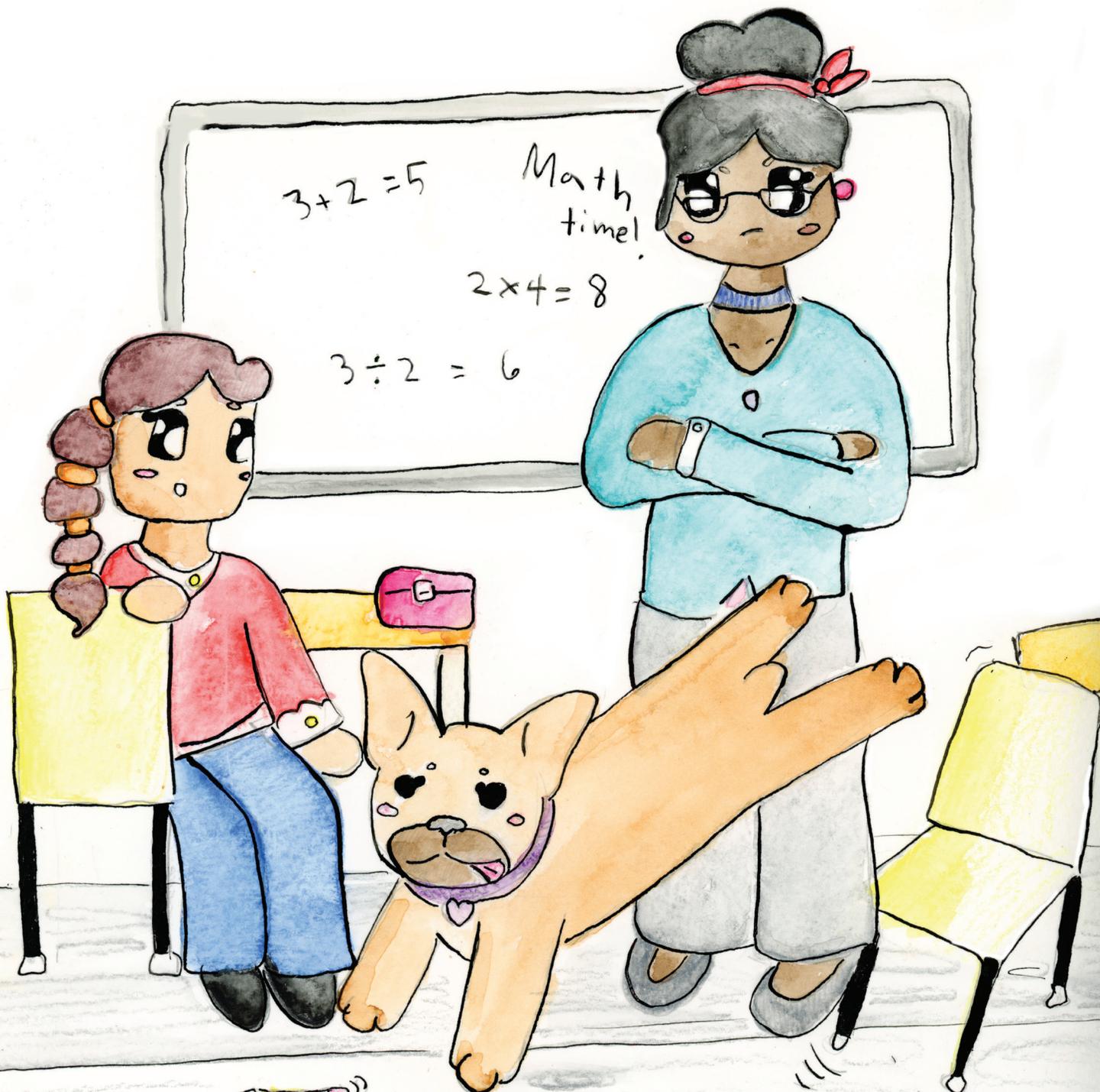
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