



# Colorado Measures of Academic Success



## Grade 4

### English Language Arts/Literature



Paper Practice Resource for Students





## **Converted Online Technology-Enhanced Item Types**

Online technology-enhanced items converted to the paper testing format may ask students to:

- Circle the correct answer
- Complete a table with checkmarks, Xs, or letters from a list of answer choices
- Fill in the blank
- Draw lines from boxes to correct answers
- Complete a bar graph or histogram

# ITEM SET 1

**Today you will read a story about a girl whose family is from India and a poem that expresses how the speaker faces frightening experiences. After you finish the task, you will write an essay about a theme in the story and the poem.**

Read the story "Just Like Home." Then answer questions 1 through 3.

## Just Like Home

*by Mathangi Subramanian*

- 1 When the recess bell rang, Priya sighed and slowly hung up her smock. At her old school, she spent recess climbing the monkey bars and sharing secrets with her friends. Now she sat in the corner of the field and watched the other kids play without her.
- 2 The only thing Priya liked about her new school was art. They hadn't had art at her old school, but here art was a whole hour. The studio had the most wonderful things, like aluminum pie tins, plaster of Paris and India ink. During art, Priya forgot that she didn't have any friends at her new school. All she thought about was whatever she was working on.
- 3 As she cleared her table, Priya noticed a box of sidewalk chalk sitting on the counter by the window. She grabbed and stuffed it in her pockets. Then she took her usual place at the end of the recess line.
- 4 While she and her classmates filed through the halls and out into the yard, Priya thought about how she and her mother used to draw chalk patterns on the long driveway leading up to their old apartment building. The patterns were called rangoli, and they looked like stars and roses. Priya's mother said that the drawings were to welcome guests to their home. All the families in India, where Priya's family was from, did rangoli every morning, just like Priya and her mother. Their new apartment had barely any sidewalk in front of it, and there was no room for rangoli. Priya missed the early mornings she and her mother would spend drawing feathery, colorful patterns on the cement.
- 5 Priya walked over to the basketball court and sat on the hot pavement. She was glad to have something to do besides sit in her corner. She pulled the box out of her pocket and took out a bright red piece of chalk and began drawing the rangoli patterns she loved best. She drew flowers with huge, swirling petals and stars with eight points. She colored them green, yellow and blue, all colors her mother had used. She liked the soft, solid feeling of the chalk in her hand, and the way that the dust left patterns on her fingers.

- 6 "That's pretty," a voice said.
- 7 She turned around and saw that Enrique, a boy in her class, was watching her.
- 8 "It's called *rangoli*," she said. "They do this in India, where my parents are from."
- 9 "You know what that reminds me of?" he asked, kneeling down beside her. "The floor of my grandmother's house in Mexico has tiles that have designs like that."
- 10 "What do you mean?" Priya asked.
- 11 "Hand me a piece of chalk," Enrique said. "I'll show you." Enrique sat down on the pavement and began to draw. He used green, orange, and yellow chalk to draw flowers that were more detailed than Priya's, but still had huge, curvy petals. Then he drew circles inside circles, and surrounded them with small diamonds. Priya kept drawing too, in between and around Enrique's designs.
- 12 "What are you guys doing?" a voice asked.
- 13 Priya and Enrique had been so absorbed in drawing that they hadn't noticed that their classmate Farah had been watching them.
- 14 "Hey," Farah said, sitting down beside them, "that looks like the rugs in my Uncle's house in Iran. Except on the rugs, the shapes are bigger, and aren't as curly."
- 15 "Show us," said Enrique, handing her a piece of chalk.
- 16 Farah took the chalk and began drawing. She drew shapes that were full of straight lines and bold colors. They were bigger than the shapes Priya and Enrique had drawn, and they overlapped each other in diagonals to form new shapes. She colored the drawings purple, dark blue, and white.
- 17 "Wow!" Ms. Lopez, Priya's teacher, said. "That's beautiful!"
- 18 Priya, Enrique and Farah stood up and looked at what they had done. The pavement was covered in bright colors and shapes: triangles, circles, squares and diamonds, all mixed together. Their classmates began to drift over to see what was happening.
- 19 "It looks like a universe, with lots of planets and stars," said Lily.

20 "It looks like a coral reef full of tropical fish," said Jasper.

21 "What do you think it looks like Priya?" said Enrique.

22 Priya looked at Enrique and Farah. Their knees, elbows, and fingers were covered in red, yellow, green and blue chalk dust. Priya smiled and said, "It looks like home."

"Just Like Home," by Mathangi Subramanian. Reprinted with permission from SKIPPING STONES: A MULTICULTURAL MAGAZINE, March–April 2012.

**1. Part A**

What is the meaning of the word **drift** as it is used in paragraph 18 of "Just Like Home"?

- (A) consider
- (B) wander
- (C) change
- (D) hover

**Part B**

Which detail from the story helps the reader understand the meaning of **drift**?

- (A) Priya, Enrique, and Farah create drawings that have different colors and shapes.
- (B) Jasper studies the drawings and decides they look like tropical fish swimming in a coral reef.
- (C) Lily, Jasper, and Enrique make comments about the drawings as the students come close enough to see them.
- (D) Priya smiles when her teacher and classmates show an interest in the drawings by describing them to one another.

2. Write the letters of **three** phrases that help describe the setting in the box titled Phrases. Then write the numbers of **three** pieces of supporting evidence in the box titled Evidence from "Just Like Home."

**Phrases**

- A. a playground with a large cement area
- B. a long driveway with room to welcome guests
- C. a field for sitting and watching others
- D. a walkway with little drawing space
- E. a workspace filled with art supplies

**Evidence from "Just Like Home"**

- 1. "Now she sat in the corner of the field and watched the other kids play without her." (paragraph 1)
- 2. "The studio had the most wonderful things, like aluminum pie tins, plaster of Paris and India ink." (paragraph 2)
- 3. "All the families in India, where Priya's family was from, did rangoli every morning, just like Priya and her mother." (paragraph 4)
- 4. "Their new apartment had barely any sidewalk in front of it, and there was no room for rangoli." (paragraph 4)
- 5. "Priya walked over to the basketball court and sat on the hot pavement." (paragraph 5)

**Phrases**

\_\_\_\_\_

**Evidence from "Just Like Home"**

\_\_\_\_\_

### 3. Part A

In "Just Like Home," what can be learned about Priya from her statement, "It looks like home"?

- Ⓐ She believes imagination improves art.
- Ⓑ She realizes many of her classmates have artistic talent.
- Ⓒ She misses the family traditions in India.
- Ⓓ She wishes she could spend time with her friends in India.

### Part B

Which detail supports the answer to Part A?

- Ⓐ "At her old school, she spent recess climbing the monkey bars and sharing secrets with her friends." (paragraph 1)
- Ⓑ "While she and her classmates filed through the halls and out into the yard, Priya thought about how she and her mother used to draw chalk patterns on the long driveway leading up to their old apartment building." (paragraph 4)
- Ⓒ "Then he drew circles inside circles, and surrounded them with small diamonds. Priya kept drawing too, in between and around Enrique's designs." (paragraph 11)
- Ⓓ "Priya, Enrique and Farah stood up and looked at what they had done. The pavement was covered in bright colors and shapes: triangles, circles, squares and diamonds, all mixed together." (paragraph 18)

Read the poem "Life Doesn't Frighten Me." Then answer questions 4 and 5.

## Life Doesn't Frighten Me

*by Maya Angelou*

Shadows on the wall  
Noises down the hall  
Life doesn't frighten me at all

Bad dogs barking loud  
5 Big ghosts in a cloud  
Life doesn't frighten me at all.

Mean old Mother Goose  
Lions on the loose  
They don't frighten me at all

10 Dragons breathing flame  
On my counterpane  
That doesn't frighten me at all.

I go boo  
Make them shoo  
15 I make fun  
Way they run  
I won't cry  
So they fly  
I just smile  
20 They go wild  
Life doesn't frighten me at all.

Tough guys fight  
All alone at night  
Life doesn't frighten me at all.

25 Panthers in the park  
Strangers in the dark  
No, they don't frighten me at all.

That new classroom where  
Boys all pull my hair

30 (Kissy little girls  
With their hair in curls)  
They don't frighten me at all.

Don't show me frogs and snakes  
And listen for my scream,  
35 If I'm afraid at all  
It's only in my dreams.  
I've got a magic charm  
That I keep up my sleeve,  
I can walk the ocean floor  
40 And never have to breathe.

Life doesn't frighten me at all  
Not at all  
Not at all.  
Life doesn't frighten me at all.

"Life Doesn't Frighten Me" from AND STILL I RISE: A BOOK OF POEMS by Maya Angelou, copyright © 1978 by Maya Angelou. Used by permission of Random House, an imprint and division of Penguin Random House LLC. All rights reserved.

**4. Part A**

What is the meaning of lines 37–38 of “Life Doesn’t Frighten Me”?

I’ve got a magic charm  
That I keep up my sleeve,

- Ⓐ a secret talent to use when the time is right
- Ⓑ a symbol of the speaker’s imagination
- Ⓒ a special treasure hidden from cruel classmates
- Ⓓ a scary experience in the speaker’s nightmares

**Part B**

Which lines from the poem **best** demonstrate the answer to Part A?

- Ⓐ lines 10–11
- Ⓑ lines 28–29
- Ⓒ lines 35–36
- Ⓓ lines 39–40

**5. Part A**

Which sentence summarizes the speaker's thoughts in "Life Doesn't Frighten Me"?

- A Some challenges are much more difficult than others.
- B Dreams can be helpful when solving problems.
- C Confidence is the best weapon against fear.
- D Being alone is the scariest place to be.

**Part B**

Which lines from the poem show evidence of the answer to Part A?

- A lines 1–2
- B lines 10–11
- C lines 19–20
- D lines 35–36

Refer to the story "Just Like Home" and the poem "Life Doesn't Frighten Me." Then answer question 6.

6. Think about how "Just Like Home" and "Life Doesn't Frighten Me" communicate ideas by using different structures.

Complete the chart by writing the letter of each structural element in the box for the story or for the poem. You may use some structural elements twice.

- A.  B.   
C.  D.   
E.  F.   
G.

<b>"Just Like Home"</b>	<b>"Life Doesn't Frighten Me"</b>

**TURN THE PAGE AND  
CONTINUE WORKING**



A large rectangular area with an orange border, containing 20 horizontal blue lines for writing. The lines are evenly spaced and extend across most of the width of the page.

A large rectangular area with an orange border, containing 20 horizontal blue lines for writing. The lines are evenly spaced and extend across most of the width of the page.

A large rectangular area with an orange border, containing 20 horizontal blue lines for writing. The lines are evenly spaced and extend across most of the width of the page.

Read the article "Helping Paws." Then answer questions 8 through 11.

## Helping Paws

### from *Animal Heroes: True Rescue Stories*

by Sandra Markle

- 1 Craig Cook has a very special service partner—a twenty-five-year-old female capuchin monkey named Minnie. In 1996, when he was thirty years old, Craig was in a car accident that left him a quadriplegic, someone whose arms and legs don't work properly. For several years, Craig needed help from other people for such basic needs as getting a drink of water. Then Minnie came to Craig through the Helping Hands Organization.
- 2 Minnie was born at Southwick's Zoo in Mendon, Massachusetts, as part of the special Helping Hands program. While she was a baby, she was given to a foster family who cared for her and helped her learn to live with people. She learned basic skills such as obeying rules and fetching on command.
- 3 Next, Minnie attended the Helping Hands Monkey College for two years. At the college, she learned tasks that would help a handicapped person. These included taking food out of a refrigerator, turning pages in a book one at a time, and picking up objects that had been dropped. It is a long training process, but capuchin monkeys can live to be forty-five years old. So they can be counted on to provide service for many years.
- 4 Craig said, "Living with Minnie is like living with a good friend. And since she's been with me, Minnie's learned even more neat things to do, like make popcorn in the microwave. Thanks to Minnie, I can live independently with caregivers only coming in for a short time each day. And, when I go out, instead of being seen as the guy in the wheelchair, I'm now the guy with the monkey. How cool is that?"

"Animal Heroes: True Rescue Stories" by Sandra Markle. Text copyright © 2009 by Sandra Markle. Reprinted with the permission of Millbrook Press, a division of Lerner Publishing Group, Inc. All rights reserved. No part of this text excerpt may be used or reproduced in any manner whatsoever without the prior written permission of Lerner Publishing Group, Inc.

**8. Part A**

What is the meaning of the word **independently** as it is used in paragraph 4 of "Helping Paws"?

- Ⓐ without assistance
- Ⓑ with a hopeful feeling
- Ⓒ without any frustration
- Ⓓ with an important purpose

**Part B**

Which detail from the article helps the reader understand the meaning of **independently**?

- Ⓐ ". . . needed help from other people for such basic needs as getting a drink of water." (paragraph 1)
- Ⓑ ". . . learned tasks that would help a handicapped person." (paragraph 3)
- Ⓒ ". . . caregivers only coming in for a short time each day." (paragraph 4)
- Ⓓ ". . . now the guy with the monkey." (paragraph 4)

## 9. Part A

Read the sentence from paragraph 3 of "Helping Paws."

At the college, she learned tasks that would help a handicapped person.

Which statement from "Helping Paws" provides support for this statement?

- (A) "In 1996, when he was thirty years old, Craig was in a car accident that left him a quadriplegic, someone whose arms and legs don't work properly." (paragraph 1)
- (B) "Then Minnie came to Craig through the Helping Hands Organization." (paragraph 1)
- (C) "These included taking food out of a refrigerator, turning pages in a book one at a time, and picking up objects that had been dropped." (paragraph 3)
- (D) "It is a long training process, but capuchin monkeys can live to be forty-five years old." (paragraph 3)

## Part B

How does the author show that Minnie is useful to Craig?

- (A) by providing information about where Minnie was born
- (B) by including Craig's descriptions about how important Minnie is to him
- (C) by describing the work of the Helping Hands Organization
- (D) by explaining how Craig became a quadriplegic

## 10. Part A

How does the author of "Helping Paws" organize the information?

- Ⓐ by showing how Craig and Minnie are alike and how they are different
- Ⓑ by explaining why Minnie attended Helping Hands Monkey College
- Ⓒ by providing detailed descriptions of both Craig and Minnie
- Ⓓ by presenting Craig's challenge and its solution

## Part B

Which sentence from "Helping Paws" provides evidence for the answer to Part A?

- Ⓐ "She learned basic skills such as obeying rules and fetching on command." (paragraph 2)
- Ⓑ "And since she's been with me, Minnie's learned even more neat things to do, like make popcorn in the microwave." (paragraph 4)
- Ⓒ "Thanks to Minnie, I can live independently with caregivers only coming in for a short time each day." (paragraph 4)
- Ⓓ "And when I go out, instead of being seen as the guy in the wheelchair, I'm now the guy with the monkey." (paragraph 4)

### 11. Part A

What is a main idea of the article "Helping Paws"?

- Ⓐ Craig is no longer lonely because Minnie is constantly by his side.
- Ⓑ Craig can now travel to other places because of Minnie's help.
- Ⓒ Minnie has taught Craig that animals are good companions.
- Ⓓ Minnie has provided a way for Craig to live with less help from others.

### Part B

Which sentence from "Helping Paws" supports the answer to Part A?

- Ⓐ "Craig Cook has a very special service partner—a twenty-five-year-old female capuchin monkey named Minnie." (paragraph 1)
- Ⓑ "For several years, Craig needed help from other people for such basic needs as getting a drink of water." (paragraph 1)
- Ⓒ "It is a long training process, but capuchin monkeys can live to be forty-five years old." (paragraph 3)
- Ⓓ "Thanks to Minnie, I can live independently with caregivers only coming in for a short time each day." (paragraph 4)

**This is the end of Item Set 1.**

# ITEM SET 2

**Today you will read about a girl who finds some unusual shoes. As you read the story, you will gather information to answer questions and write a narrative story.**

Read “Those Wacky Shoes.” Then answer questions 1 through 5.

## Those Wacky Shoes

by Julie Parker Amery

- 1 I *thought* it was going to be an ordinary Saturday—but, boy, was I wrong.
- 2 I bought some shoes at a thrift shop downtown. They were blue-and-red-checked slip-on sneakers. Unusual. I liked them.
- 3 I put them on outside the store. I got ready to turn right, toward home . . . but my feet turned left! It was as if those wacky shoes were in control. I tried to stop to take them off, but my feet wouldn't let me. I quickly realized that those shoes were going to take me wherever they wanted.
- 4 The shoes walked me up Main Street, nice and slow. After a few blocks, they turned my feet left up Pine Street. They started picking up speed. I passed a woman walking a beagle. She looked at my shoes and said, “Did you get those at the secondhand store downtown?”
- 5 “Yep.” I hurried along at the pace of a speed-walker.
- 6 “I was stuck in those shoes once,” she said. “They took me all the way to Vermont!”
- 7 “How do I get out of them?” I shouted over my shoulder. By now I was running.
- 8 “You have to outsmart them,” she yelled back. And she said something else, but by then I was too far away to hear.
- 9 *Great*, I thought. *Someone tells me to outsmart a pair of shoes, and I can't. This doesn't speak well for my brain.*
- 10 We turned up a dirt path, heading straight for a huge oak. I put my hands over my face, certain I'd smash right into that tree. But my feet started climbing *up* the trunk! I grabbed the trunk with both hands to keep my balance. We went higher and higher.
- 11 Did I mention that I don't like heights much? I tried not to look down. I kept going, my heart pounding like a giant hammer in my chest, when—suddenly—my feet slipped.

- 12 So those shoes weren't perfect, after all.
- 13 I grabbed a branch with both hands and hung. It sure was high up there.
- 14 Somehow, I managed to pull myself up to sit on a branch. My feet were still. It seemed that when they weren't on something solid, those shoes weren't quite so tough. I tried to pull one off, but it was latching on with all its might. Now what should I do?
- 15 The good thing about being stuck in the tree was that I had time to think up a wild idea.
- 16 I started yelling. Since I was in the middle of nowhere, I had to yell for what seemed like a hundred years. Finally, a kid rode up on his bike.
- 17 "Can you do me a favor?" I called. "Can you get someone to bring a big bucket of wet cement? It would really help me out."
- 18 "We've got cement mix in our garage," he said. "I can make some and bring it to you." And off he went, just like that. I like a kid who doesn't ask a lot of questions.
- 19 Eventually the kid came back, walking this time, and pulling a rusty wagon behind him. The wagon was filled with wet cement.
- 20 "Hey, thanks!" I said. "Now, I'm going to start coming down the tree. I want you to put the wagon right under my feet when I get low enough to jump. Got it?"
- 21 He nodded, and I set to work on shimmying from branch to branch, careful not to let my feet touch anything. I didn't want the shoes to take over again.
- 22 When I was on a lower branch, I jumped. My feet went *luuuurrrrp* as they hit the wet cement.
- 23 "Now, can you find a couple of strong people?" I asked. I stood there in the cement while he was gone, my stomach feeling all twisty. I was scared and excited at the same time.
- 24 The boy returned with a boy and a girl. They looked at me strangely, but I just said, "Could you yank me out?"
- 25 They grabbed me under my arms and pulled.
- 26 My plan worked! The cement held the shoes in place, and I came out of them. I was free!

27 "Thanks, guys!" I said.

28 "I guess your shoes are stuck in there forever," the girl said.

29 "It's OK. I was done with them anyway."

30 Then the wagon started rolling down the path. It gathered speed, took a left when it got to the road, went steadily up the hill, and was soon out of sight.

31 I sure hope those wacky shoes know how to drive.

"Those Wacky Shoes" by Julie Parker Amery from Highlights for Children Magazine's December 2009 issue, copyright © 2009 by Highlights for Children, Inc., Columbus, Ohio. Used by permission.

## 1. Part A

Which is the **best** summary of the story?

- Ⓐ The main character buys strange shoes at a thrift shop. A woman tells her she needs to find a way to get out of the shoes or they will take her places she does not want to go.
- Ⓑ The main character buys shoes that control her every step, and she cannot get them off. She thinks of a clever solution to get out of the shoes and asks some kids to help her.
- Ⓒ The main character is stuck in a tree because she bought strange shoes that made her climb up the tree. When she jumps in a wagon, she loses her shoes, and the wagon rolls away.
- Ⓓ The main character wears shoes that take her places, and she gets stuck in a tree. She asks some kids to help her get down from the tree safely, and they finally bring a wagon with cement in it.

## Part B

Which **two** sentences from the story **best** support the answer to Part A?

- Ⓐ "They were blue-and-red-checkered slip-on sneakers."
- Ⓑ "I quickly realized that those shoes were going to take me wherever they wanted."
- Ⓒ "She looked at my shoes and said, 'Did you get those at the secondhand store downtown?'"
- Ⓓ "Somehow, I managed to pull myself up to sit on a branch."
- Ⓔ "The cement held the shoes in place, and I came out of them."
- Ⓕ "Then the wagon started rolling down the path."

## 2. Part A

Which statement **best** describes the main character between paragraph 4 and paragraph 10 in the story?

- Ⓐ The main character is angry because the shoes make her walk quickly.
- Ⓑ The main character is frustrated because the shoes seem more clever than she is.
- Ⓒ The main character is scared because the shoes seem to be in control of her.
- Ⓓ The main character is jealous because the shoes have been tricked by other people.

## Part B

Which statement from paragraphs 4 through 10 supports the answer to Part A?

- Ⓐ “‘Yep.’ I hurried along at the pace of a speed-walker.”
- Ⓑ “‘I was stuck in those shoes once,’ she said.”
- Ⓒ “*Someone tells me to outsmart a pair of shoes, and I can’t.*”
- Ⓓ “I put my hands over my face, certain I’d smash right into that tree.”

### 3. Part A

Based on the events in the story, which phrase **best** describes the main character at the end of the story?

- Ⓐ proud that she tricked the shoes
- Ⓑ unsure about where to buy new shoes
- Ⓒ worried about what the shoes will do next
- Ⓓ excited to learn where the shoes take the wagon

### Part B

Which detail from the story **best** supports the answer to Part A?

- Ⓐ "My plan worked!"
- Ⓑ "'I guess your shoes are stuck in there forever,' the girl said."
- Ⓒ "Then the wagon started rolling down the path."
- Ⓓ "I sure hope those wacky shoes know how to drive."

#### 4. Part A

Which is a main theme of the story?

- Ⓐ Overcoming fear can lead to success.
- Ⓑ Being creative can solve problems.
- Ⓒ Knowing a lot of information is necessary for solving problems.
- Ⓓ Having a positive attitude can help when things are challenging.

#### Part B

Which sentence from the story **best** supports the answer to Part A?

- Ⓐ "I *thought* it was going to be an ordinary Saturday—but, boy, was I wrong."
- Ⓑ "I tried not to look down."
- Ⓒ "The good thing about being stuck in the tree was that I had time to think up a wild idea."
- Ⓓ "'Thanks, guys!' I said."

**TURN THE PAGE AND  
CONTINUE WORKING**



A large rectangular area with an orange border, containing 20 horizontal blue lines for writing. The lines are evenly spaced and extend across most of the width of the page.

A large rectangular area with an orange border, containing 20 horizontal blue lines for writing. The lines are evenly spaced and extend across most of the width of the page.

A large rectangular area with an orange border, containing 20 horizontal blue lines for writing. The lines are evenly spaced and extend across most of the width of the page.

Read the article "How Humpbacks Go Fishing." Then answer questions 6 through 12.

## How Humpbacks Go Fishing

*by Linda Brown Anderson*

- 1 Humpback whales are known for feeding alone or in pairs. Most of the time, they plow through the ocean with their huge mouths open, scooping up thousands of tiny shrimplike creatures called krill.
- 2 But humpbacks that live near the west coast of North America have a surprising and spectacular way of catching fish. When they spot a school of herring, the humpbacks dive into the depths and close in on the fish from below. A steady flow of bubbles rises to the surface, forming a circle.
- 3 Suddenly, all of the whales explode out of the water at once, right in the middle of the bubblecircle. Their huge mouths are open and full of silver, wriggling fish.
- 4 Scientists wanted to know more about how the whales fed on schools of fish. Using underwater microphones, they listened to humpbacks as they fed. The whales made magnificent trumpetlike sounds as they swept up and ate the fish.
- 5 The researchers also used the Crittercam, a video camera that can be attached harmlessly to the back of a whale. It showed that the whales waved their huge flippers back and forth as they fed.
- 6 Most researchers thought the humpbacks were fighting over the fish. Whales are known to use bubbles and loud calls when they try to chase away other whales. Maybe they also waved their flippers to shoo one another away.

### **A Deep Mystery**

- 7 Dr. Fred Sharpe had a radical idea for the late 1980s, when he began his research. Maybe the whales were working together!
- 8 Dr. Sharpe led a team of researchers. They used sonar to "see" deeper into the water. A sonar device sends out sound waves, then catches the echoes of those waves after they bounce off objects, such as whales, fish, and bubbles. Using the echoes, the sonar creates pictures of the objects.

- 9 The sonar showed that, to a humpback, bubbles are tools. A single whale swims below the fish, carefully releasing air from its blowhole to create a wall of bubbles.
- 10 Also using sonar, the scientists saw other whales moving toward the herring, chasing the fish toward the bubble wall. The herring were reluctant to try to escape through the bubbles. The bubble-blowing whale began to swim in a circle, making the wall of bubbles go all the way around the fish. The fish were trapped in a bubble net!
- 11 Using an underwater microphone, the research team recorded the sounds of the whales. The whales swam under the herring and began their trumpetlike calls. Then the whales swam upward all at once, waving their flippers, and gulped a large number of fish.
- 12 The whales were working together!
- 13 How did the whales use their calls and flippers to help catch their food?
- 14 To find out, Dr. Sharpe and his team placed a school of herring into an aquarium. Then the researchers pumped in air to make a wall of bubbles. The fish would not swim through the bubbles.
- 15 When the researchers played a recording of feeding calls by humpbacks, the herring dashed away from the sounds. The sounds make it easier to trap the fish in the bubble net.
- 16 The scientists also placed a model of a humpback flipper into the aquarium. Like a real humpback flipper, the model was dark on one side and white on the other. As the researchers turned the flipper and flashed the white underside at the school, the fish quickly swam away.

### **Working as a Team**

- 17 Now Dr. Sharpe understood how humpbacks feed together. One whale forms a wall of bubbles around the fish. Other whales approach from the sides and from below. One of the whales, the leader, makes calls from below that send the fish toward the surface and into the ring of bubbles. As the fish are squeezed into a tighter group, the bubble-blowing whale continues to swim in a circle, closing the net and trapping the fish in a bubble corral.

- 18 Finally, all of the whales swim up into the feast of fish, making trumpetlike calls and flashing the white sides of their flippers to keep the trapped fish from escaping between them.
- 19 Over the years, the research group has seen that humpback whales often live and hunt together for years. Each time they go fishing, the same whales play the same roles: bubble blower, first caller, and so on.
- 20 Thanks to Dr. Sharpe and his co-workers, we now know something about humpback intelligence. We also know that these famous "loners" actually can form lifelong relationships with others of their species.

"How Humpbacks Go Fishing" by Linda Brown Anderson from HIGHLIGHTS FOR CHILDREN, INC. Copyright © 2011.

**6. Part A**

Based on information in paragraphs 2 and 3, what is the meaning of the word **spectacular**?

- A amazing
- B difficult
- C exhausting
- D risky

**Part B**

Select **two** details from the article that are examples of something else that is **spectacular**.

- A “. . . live near the west coast . . .” (paragraph 2)
- B “. . . all of the whales explode out of the water at once. . . .” (paragraph 3)
- C “. . . made magnificent trumpetlike sounds . . .” (paragraph 4)
- D “. . . reluctant to try to escape . . .” (paragraph 10)
- E “. . . whales often live and hunt together. . . .” (paragraph 19)

## 7. Part A

How does a sonar device help scientists in their research?

- Ⓐ It takes still pictures and videos of objects that are underwater.
- Ⓑ It listens and records sounds that are underwater.
- Ⓒ It uses echoes of sound waves to discover objects underwater.
- Ⓓ It creates bubbles and releases them underwater.

## Part B

Which evidence describes the discovery made through the use of sonar?

- Ⓐ "A single whale swims below the fish, carefully releasing air from its blowhole to create a wall of bubbles." (paragraph 9)
- Ⓑ "Then the researchers pumped in air to make a wall of bubbles." (paragraph 14)
- Ⓒ "When the researchers played a recording of feeding calls by humpbacks, the herring dashed away from the sounds." (paragraph 15)
- Ⓓ "As the fish are squeezed into a tighter group, the bubble-blowing whale continues to swim in a circle, closing the net and trapping the fish in a bubble corral." (paragraph 17)

## 8. Part A

Researchers conducted several experiments at the aquarium to study whale-feeding behavior. Which is the correct order of the steps used to imitate whales feeding in the wild?

- Ⓐ played a recording of feeding calls, pumped bubbles into the aquarium, and used a model of a humpback flipper
- Ⓑ pumped bubbles into the aquarium, played a recording of feeding calls, and used a model of a humpback flipper
- Ⓒ used a model of a humpback flipper, pumped bubbles into the aquarium, and played a recording of feeding calls
- Ⓓ played a recording of feeding calls, used a model of a humpback flipper, and pumped bubbles into the aquarium

## Part B

At the aquarium, what was the purpose of conducting research on whale-feeding behaviors?

- Ⓐ to identify the reasons that whales blow bubbles and circle the herring
- Ⓑ to find out whether herring escape bubble nets blown by whales
- Ⓒ to discover the role of whale calls and flippers in catching food
- Ⓓ to learn how sound travels in water

9. According to the article, humpback whales use specific actions to hunt fish. Write the letter in the correct box for the effect of each action.

**Effects**

- A. 

“. . . trapped in a bubble net!” (paragraph 10)
--
- B. 

“. . . send the fish toward the surface . . .” (paragraph 17)
--
- C. 

“. . . squeezed into a tighter group . . .” (paragraph 17)
---
- D. 

“. . . keep the trapped fish from escaping between them.” (paragraph 18)
---

<b>Action</b>	<b>Effect</b>
make trumpetlike sounds	_____
make bubble net smaller	_____
blow a ring of bubbles	_____
wave flippers	_____

## 10. Part A

How does the author of "How Humpbacks Go Fishing" use details to support the idea that whales work together?

- Ⓐ She explains the different jobs that whales have while they are feeding.
- Ⓑ She describes the tools used by scientists to conduct research on whales.
- Ⓒ She explains what scientists used to believe about whale behavior.
- Ⓓ She describes the types of fish whales prefer to eat.

## Part B

Which sentence from the article provides evidence for the answer to Part A?

- Ⓐ "Most of the time, they plow through the ocean with their huge mouths open, scooping up thousands of tiny shrimplike creatures called krill." (paragraph 1)
- Ⓑ "Most researchers thought the humpbacks were fighting over the fish." (paragraph 6)
- Ⓒ "Using an underwater microphone, the research team recorded the sounds of the whales." (paragraph 11)
- Ⓓ "Each time they go fishing, the same whales play the same roles: bubble blower, first caller, and so on." (paragraph 19)

**11.** Research scientists used a variety of instruments to study the behavior of humpback whales.

Match each important discovery made by the scientists by writing **one** letter in **each** correct box for the discovery of each instrument. Each discovery can only be used **once**.

### Scientific Discoveries

A. "It showed that the whales waved their huge flippers back and forth as they fed." (paragraph 5)

B. "When the researchers played a recording of feeding calls by humpbacks, the herring dashed away from the sounds. The sounds make it easier to trap the fish in the bubble net." (paragraph 15)

C. "Then the researchers pumped in air to make a wall of bubbles. The fish would not swim through the bubbles." (paragraph 14)

D. "A single whale swims below the fish, carefully releasing air from its blowhole to create a wall of bubbles." (paragraph 9)

E. "As the fish are squeezed into a tighter group, the bubble-blowing whale continues to swim in a circle, closing the net and trapping the fish in a bubble corral." (paragraph 17)

Crittercam

\_\_\_\_\_

Microphone

\_\_\_\_\_

Sonar

\_\_\_\_\_

## 12. Part A

What is the main idea of the article?

- Ⓐ Humpback whales use their fins to protect themselves.
- Ⓑ Humpback whales are smart and social creatures.
- Ⓒ Humpback whales like to swim in shallow water.
- Ⓓ Humpback whales prefer to hunt by themselves.

## Part B

Which **two** details from the article **best** support the answer to Part A?

- Ⓐ “. . . are known for feeding alone or in pairs.” (paragraph 1)
- Ⓑ “. . . flow of bubbles rises to the surface, forming a circle.” (paragraph 2)
- Ⓒ “. . . and gulped a large number of fish.” (paragraph 11)
- Ⓓ “. . . flashing the white sides of their flippers to keep the trapped fish from escaping between them.” (paragraph 18)
- Ⓔ “. . . can form lifelong relationships with others of their species.” (paragraph 20)

**This is the end of Item Set 2.**

