

## OAT Authentic Test Questions – 4<sup>th</sup> Grade Reading

### Acquisition of Vocabulary Standard

#### One Little Can Reading Passage Questions

1. "Rachel **scowled** in disgust as she walked to the school bus stop. The sidewalk was littered with newspapers and candy wrappers. The front door to Lee's Grocery was covered with ugly graffiti."

What is an antonym for **scowled**?

- A. joked
  - B. snarled
  - C. grinned
  - D. fussed
2. " 'Hmph,' he said as the girl passed by. She's probably another troublemaker, he thought.

To **confirm** his suspicion, the girl stepped back to kick a piece of garbage into the street."

What is a synonym for the word **confirm**?

- A. notice
- B. prove
- C. raise
- D. undo

#### Putting the Sun to Work Reading Passage Questions

3. "Some houses collect the sun's heat on the roof, move the heat indoors, and **store** some of it to use later."

Which meaning of the word **store** is used in the sentence?

**store** /stôr/ **1)** *n.* a place where goods are sold. **2)** *n.* importance or value. **3)** *v.* to put away for future use. **4)** *v.* to supply what is needed.

- A. definition 1
- B. definition 2
- C. definition 3
- D. definition 4

4. "The water feels good. It is warm at the top, but cooler down around your toes."

Which word pair is an example of antonyms?

- A. warm and cooler
- B. good and cooler
- C. toes and down
- D. warm and around

### The Old Coat Reading Passage Questions

5. "It flaps its sleeves  
when mother runs to the **coop**  
to check if the hens have laid."

According to the poem, what is a **coop**?

- A. a place to keep tools
- B. a place to keep chickens
- C. a place to feed horses
- D. a place to observe stars

## The Wag-o-meter Study Reading Passage Questions

6. "I would count the number of wags on the wag-o-meter when I called her by each name and **measure** how happy she was."

Which definition of **measure** is used in this sentence?

**measure** /mēzh'ər/ **1)** *n.* a set amount of something. **2)** *n.* one part of a piece of music. **3)** *v.* to tally or count events or occurrences. **4)** *v.* to find the length or weight of something.

- A. definition 1
- B. definition 2
- C. definition 3
- D. definition 4
7. "I wanted to be very scientific about discovering her favorite name, so I decided to do a research **experiment**."

Which word is a synonym for **experiment**?

- A. test
- B. data
- C. control
- D. hypothesis

## Mae C. Jamison Reading Passage Questions

8. "She was **eager** to travel into space, but she had to wait her turn."

Which word is a synonym for **eager**?

- A. excited
- B. scared
- C. curious
- D. proud

9. "Astronauts must be strong and **fit**, so they exercise."

Which definition of **fit** is used in this sentence?

**fit** /fit/ 1) *n.* the right size. 2) *v.* to agree with. 3) *v.* to insert or adjust.  
4) *adj.* healthy.

- A. definition 1
- B. definition 2
- C. definition 3
- D. definition 4

### Tanya's City Garden Reading Passage Questions

10. "The alley between the buildings was **filthy**. Tanya's broom stirred up swirls of dust."

Which word is an antonym for **filthy**?

- A. empty
- B. colorful
- C. dirty
- D. clean

### Rivers to the Sea Reading Passage Questions

- 11 "I live beside the West River in Vermont. It's deep enough to swim in and as wide as a two-lane road. I've fished and skimmed stones on the West River."

What phrase in these sentences is a simile?

- A. beside the West River
- B. deep enough to swim in
- C. as wide as a two-lane road
- D. fished and skimmed stones

12. Which of these word pairs are synonyms from the selection?
- A. dribble and trickle
  - B. wider and faster
  - C. rain and snow
  - D. diggers and carriers

### Hamburger Me at the Car Reading Passage Questions

13. Watson raced to the end of the street and looked both ways, but Ross had **disappeared**.

What does the prefix **dis-** do to the word **appear**?

- A. The prefix **dis-** changes the meaning to **often appears**.
  - B. The prefix **dis-** changes the meaning to **appears again**.
  - C. The prefix **dis-** changes the meaning to **does not appear**.
  - D. The prefix **dis-** changes the meaning to **will appear once**.
14. *This makes no sense at all, he thought. It must be a **secret** code!*
- What is an antonym for **secret**?
- A. difficult
  - B. well known
  - C. private
  - D. very quiet

## Little Caribou Reading Passage Questions

15. When Little Caribou is eight weeks old, the summer heat begins to **fade**. Sharp frosts turn the tundra to red and gold. Soon the tundra will be covered with ice.

Which definition of **fade** is used in the sentence?

**fade** /fād/ v. **1)** to change color. **2)** to lose strength. **3)** to move backward. **4)** to lose health.

- A. definition 1
  - B. definition 2
  - C. definition 3
  - D. definition 4
16. For many months they **roam** the forest always moving in search of food.

What word in the sentence above helps define the word **roam**?

- A. months
- B. moving
- C. food
- D. forest

## The Parcel Post Kid Reading Passage Questions

17. Live animals were also forbidden, but the postmaster found that it was all right to send baby chicks by parcel post. So he **classified** May as a baby chick, weighed her in at  $48\frac{1}{2}$  pounds (which may have included her small suitcase), and attached 53¢ in postage to her bag.

Which word is a synonym for **classified**?

- A. stamped
- B. mailed
- C. added
- D. labeled

18. Traveling about nineteen miles an hour, the train finally reached Lewiston at 11:00 A.M. Grandma Mary was **flabbergasted** when May appeared on her doorstep. No one had told her that her granddaughter was coming to visit, and delivery by mail was an extra shock!

What does the word **flabbergasted** mean in the sentence above?

- A. tired
- B. surprised
- C. worried
- D. happy

### Memory Reading Passage Questions

19. "We're playing back a **part**  
Of all that's been recorded there"

In the first line above, which dictionary definition of the word **part** is used?

**part** /part/ *n.* **1)** a section of the whole **2)** a thing in a machine that helps it operate **3)** an actor's role **4)** a duty performed in a group effort

- A. definition 1
- B. definition 2
- C. definition 3
- D. definition 4

### The Apple-Seed Man Reading Passage Questions

20. "John took with him little more than his **knowledge** of planting apple orchards and his faith."

What is the root of the word **knowledge**?

- A. owl
- B. ledge
- C. know
- D. now

## OAT Authentic Test Questions – 4<sup>th</sup> Grade Reading

### Reading Applications: Literary Text Standard

#### One Little Can Reading Passage Questions

1. “ ‘Well, Fluffy,’ she said to her cat, ‘Mr. Lee isn’t the only one who can do a bit of outdoor spring cleaning.’ ”

Who is speaking?

- A. Rachel
- B. Mr. Lee
- C. Fluffy
- D. Mrs. Polansky

2. What is the major conflict in the selection and how is it resolved?

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3. Why does Rachel sing on the way home?

- A. She feels good about her neighborhood.
- B. A woman gives her some flowers.
- C. Mr. Lee gives her a candy bar to eat.
- D. Mr. Lee thanks her for her help.



4. What is the theme of this selection?
- A. One good deed can lead to others.
  - B. A little litter in the street does not matter.
  - C. Neighborhoods are made of happy people.
  - D. It feels good to help a friend in need.

**The Old Coat Reading Passage Questions**

5. Who is the speaker in the poem?
- A. grandma
  - B. mother
  - C. father
  - D. a child

**The Wag-o-meter Study Reading Passage Questions**

6. Complete the experiment log to summarize the narrator’s experiment.

**Wag-o-meter Experiment Log**

Hypothesis:

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Procedure:

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| <b>Data:</b> | <u>Count 1</u> | <u>Count 2</u> |
|--------------|----------------|----------------|
| Ginger       | _____          | _____          |
| Gingy        | _____          | _____          |
| GinGin       | _____          | _____          |
| Puppy        | _____          | _____          |
| Cabbage      | _____          | _____          |

Conclusion:

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7. How does the narrator make sure that her results are correct?
- A. She does not count all of the tail wags the first time.
  - B. She uses different names the second time she counts.
  - C. She changes the order in which she calls the names.
  - D. She makes sure Ginger is seated for the experiment.
8. What is the main idea of **The Results** section of this experiment?
- A. what name the puppy likes the most
  - B. what names the narrator uses in the experiment
  - C. what the puppy's different nicknames are
  - D. what name the narrator calls the puppy at home

### Tanya's City Garden Reading Passage Questions

9. Why does Tanya decide to make a garden?
- A. Ramon, her brother, keeps bothering her.
  - B. She does not see anything good out of her window.
  - C. Ms. Metoyer tells her she needs to be more creative.
  - D. She wants to be on television with the mayor.
10. At the beginning of the selection, the alley is dull and gray. Write four things that happen in the selection that change the way the alley looks. Write them in the order that they happen in the selection.
- a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_

11. "Gerald admired the garden, too. A twinkle came into his eyes. He smiled a mysterious smile."

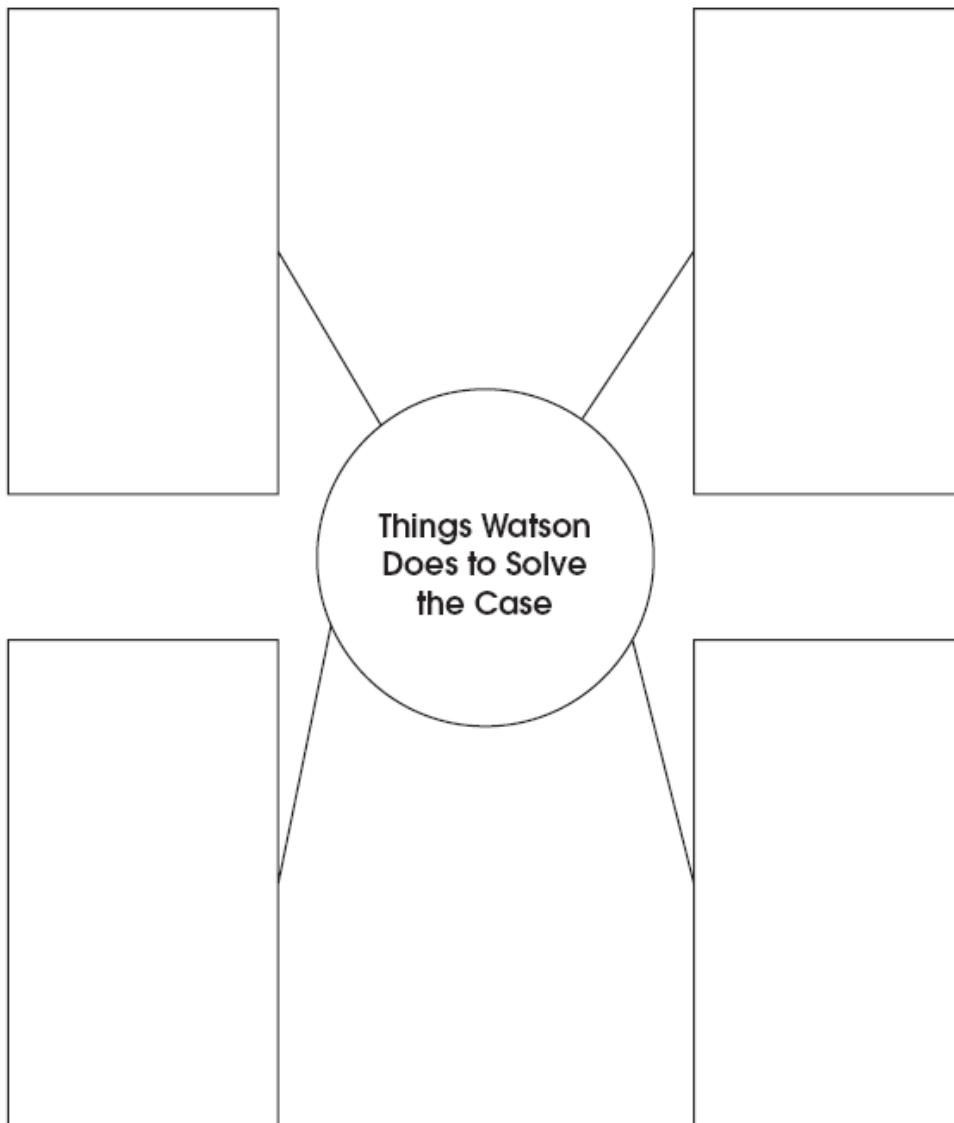
What do these sentences tell us about Gerald?

- A. He is bored with the garden.
  - B. He has an idea for the garden.
  - C. He thinks the garden is funny.
  - D. He is happy the mayor is coming.
12. What is the theme of this selection?
- A. News stories are everywhere.
  - B. Some things are easy to change.
  - C. Friendships are important to make.
  - D. One person can make a difference.

### Hamburger Me at the Car Reading Passage Questions

13. Who is telling the story in this selection?
- A. Watson
  - B. Buddy
  - C. narrator
  - D. Ross
14. In the beginning of the selection, what makes Watson race down the stairs and out the front door?
- A. He wants to catch the school bus.
  - B. He wants to follow Buddy.
  - C. He wants to meet Ross at the park.
  - D. He wants to follow Ross.

15. Complete the web with things Watson does to solve the case.



### Grocery Oasis Reading Passage Questions

16. How does the speaker feel when she comes to the grocery store door?
- A. surprised
  - B. relieved
  - C. disappointed
  - D. angry

17. Which phrase from the poem describes cool temperatures?
- A. toasts our sneakers
  - B. the pavement shimmers
  - C. what frigid freshness
  - D. roasts our feet

The Parcel Post Kid Reading Passage Questions

18. Using details from the selection, give two reasons May's parents decided to send her as a package.

a. \_\_\_\_\_  
\_\_\_\_\_

b. \_\_\_\_\_  
\_\_\_\_\_

19. Why do you think the postmaster checked his book of rules?
- A. to find the right stamp for May
  - B. to find what it cost to go to Lewiston
  - C. to see if May was tall enough to travel
  - D. to see if he could mail a person

## Memory Reading Passage Questions

20.

What is the theme of this poem?

- A. Some people have better memories than others.
- B. We should share our memories with each other.
- C. Memory stores all of our past experiences.
- D. A memory can easily be forgotten.

21. What characteristic shows that this selection is a poem?

- A. plot
- B. rhyme
- C. information about memory
- D. the use of the words "we've" and "we're"

# OAT Authentic Test Questions – 4<sup>th</sup> Grade Reading

## Reading Process Standard

### One Little Can Reading Passage Questions

1. Why does Mr. Lee sweep the litter in front of his store?
  - A. Mrs. Polansky tells him the sidewalk is dirty.
  - B. It is something he does every day.
  - C. He is following Rachel's actions.
  - D. He gets a warning letter from the city council.
  
2. How might the selection be different if Rachel had not picked up the soda can on her way to school?

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Give two examples, using information from the selection.

a. \_\_\_\_\_

b. \_\_\_\_\_

### Putting the Sun to Work Reading Passage Questions

3. According to the selection, what are two challenges to using the sun's energy?
- A. heating and cooling
  - B. collection and storage
  - C. pollution and leftovers
  - D. absorbing and insulating
4. How is the way sand and rocks heat up different from the way water heats up?
- A. Sand and rocks absorb the heat, and water does not.
  - B. Sand and rocks heat up faster than water.
  - C. Water loses heat faster than sand and rocks.
  - D. Water is a good insulator, but sand and rocks are not.
5. What are two benefits of solar energy? Use information from the selection in your answer.
- a. \_\_\_\_\_
- b. \_\_\_\_\_
6. What helps keep a house warm in the winter and cool in the summer?
- A. absorption
  - B. heat
  - C. air-conditioning
  - D. insulation



## The Old Coat Reading Passage Questions

7. What does the speaker do while wearing the coat?
- A. falls asleep
  - B. looks at stars
  - C. puts tools away
  - D. walks to school
8. Which sentence best summarizes the poem?
- A. The family members use the old coat for different reasons.
  - B. The old coat enjoys being worn in the summer time.
  - C. The family members enjoy feeding animals.
  - D. The old coat likes to flap its sleeves.

## The Wag-o-meter Study Reading Passage Questions

9. What are the data for the narrator's experiment?
- A. how many names and nicknames the puppy has
  - B. how many times the puppy wags her tail
  - C. how many times the narrator has to call the puppy
  - D. how many times the narrator pets the puppy

10. Which name does the puppy like the most?

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How do you know?

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11. Under which subheading does the narrator explain what she expects will happen when she calls the puppy "Cabbage"?

- A. The Hypothesis
- B. The Control Word
- C. The Data
- D. The Results

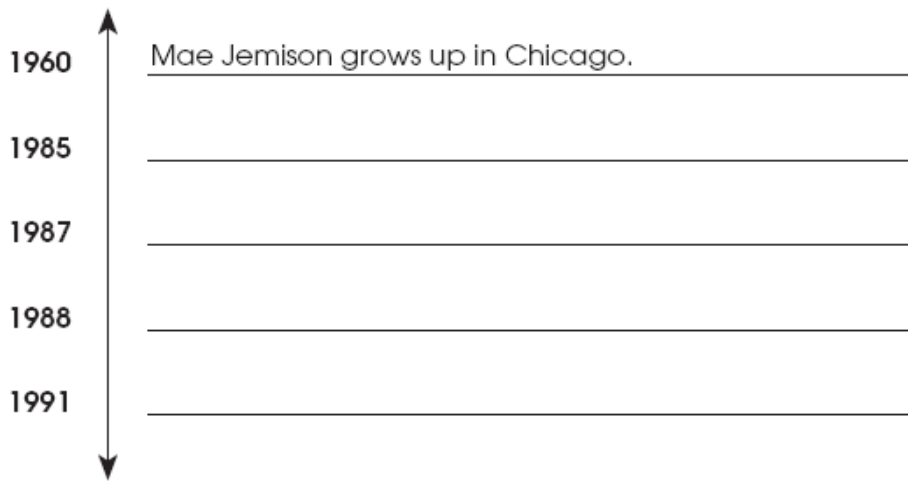
### Mae C. Jamison Reading Passage Questions

12. What made Mae Jemison wonder whether she had any chance of becoming an astronaut?

- A. Mae had to study very hard.
- B. Space travel was very popular.
- C. There were no women astronauts.
- D. Mae had been born in Georgia.

13. Which detail from the selection supports the fact that it was difficult to be chosen for the astronaut program?
- A. Fifteen people were chosen from the 2,000 who applied to the space program.
  - B. NASA's training program was a year long.
  - C. The astronauts had to study astronomy, mathematics and earth resources.
  - D. The astronauts had to exercise to be strong.

14. Complete the timeline about Mae Jemison's life. Use information from the selection.



### Tanya's City Garden Reading Passage Questions

15. How does Tanya get the garden started?
- A. with a plastic rose
  - B. with a wooden box
  - C. with a red bench
  - D. with a geranium

16. Why do so many people help with the garden?
- A. They know Tanya is little and needs their help.
  - B. They want to give away some of their old things.
  - C. They would like to be on television.
  - D. They like what Tanya is trying to do.
17. How does Tanya feel about her garden at the end of the selection? Use information from the selection to support your answer.

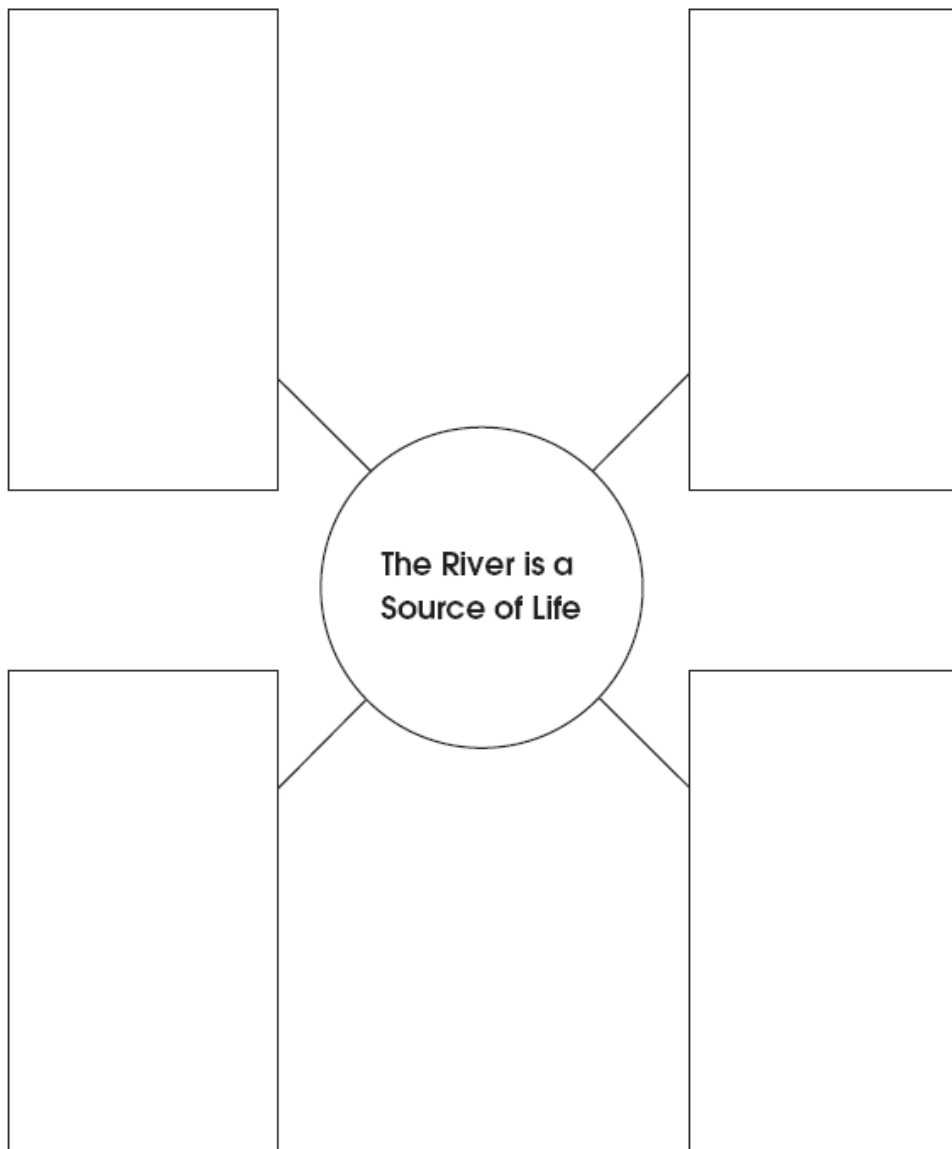
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### Rivers to the Sea Reading Passage Questions

18. Where does the West River begin?
- A. Connecticut
  - B. Vermont
  - C. Massachusetts
  - D. Long Island
19. According to the selection, how does a river become wider and deeper?
- A. by carrying lots of rocks downstream
  - B. by adding more water from streams
  - C. by moving very slowly
  - D. by joining sounds and seas

20. Complete the web with ways the river helps animals survive. Use information from the selection in your answer.



### Little Caribou Reading Passage Questions

21. Which of these sentences describes the tundra in the summer?
- A. The tundra is sunny both day and night.
  - B. The tundra has dark days and nights.
  - C. The tundra is covered with ice.
  - D. The tundra is red and gold.

22. What must the caribou travel through to get back to the tundra?
- A. craters
  - B. frozen lakes
  - C. mountains
  - D. Arctic Ocean
23. Describe two ways Little Caribou changes as she gets older. Use information from the selection in your answer.
- a. \_\_\_\_\_
- b. \_\_\_\_\_

### Hamburger Me at the Car Reading Passage Questions

24. How does Watson feel when he goes to bed Friday night?
- A. He is afraid he will oversleep.
  - B. He is puzzled about the note from the trash.
  - C. He is tired of following Ross home.
  - D. He hopes Ross and Buddy will share the money.
25. Before he stops them in the park, what does Watson think Ross and Buddy are doing?
- A. He thinks they are taking someone's money.
  - B. He thinks they are picking up trash.
  - C. He thinks they are going to get hamburgers.
  - D. He thinks they are solving mysteries.

26. How do you think Watson feels when the boys spill aluminum cans on the ground?

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Explain your answer.

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### Grocery Oasis Reading Passage Questions

27. What is the oasis in the poem?
- A. the sizzling sidewalk
  - B. the desert
  - C. the grocery store
  - D. the street
28. What could be another title for this poem?
- A. Hot Sneakers
  - B. My Friends and Me
  - C. Nighttime in the Grocery
  - D. Escaping the Heat
29. What does the speaker want to do next?
- A. go back outside to tramp on the hot concrete
  - B. eat ice cream outside
  - C. wait for night on the hot concrete
  - D. stay in the grocery until the sun goes down

## The Parcel Post Kid Reading Passage Questions

30. What is May's cousin's job?
- A. He writes for the newspaper.
  - B. He is the conductor.
  - C. He sorts mail on the train.
  - D. He is the postmaster.
31. How does the conductor find out that May is on the train?
- A. May goes to get some fresh air.
  - B. May's cousin introduces them.
  - C. The conductor sees May helping Leonard.
  - D. The postman introduces him to May.

## Memory Reading Passage Questions

32. What does the selection tell us about memories?
- A. They do not always last very long.
  - B. They should be shared with family.
  - C. They are mostly about important things.
  - D. They are about all the events of your life.
33. Identify one thing memory is being compared to.

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Explain how memory and this thing are alike.

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## The Apple-Seed Man Reading Passages

34. What made John Chapman decide to head west?
- A. He wanted to join people who were looking for new opportunities.
  - B. He wanted to teach the Indians how to grow and harvest apples.
  - C. He wanted to teach in a one-room schoolhouse.
  - D. He wanted to collect thousands of apple seeds to take back east.
35. Where did John usually plant trees?
- A. in the middle of thick woods
  - B. on the bare tops of mountains and hills
  - C. in clearings near rivers and streams
  - D. at inns and way stations
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## OAT Authentic Test Questions – 4<sup>th</sup> Grade Reading

### Reading Applications: Informational Text

#### Putting the Sun to Work Reading Passage Questions

1. What is an example of cause and effect from the selection?
  - A. While the charcoal fire is starting to burn in the cookout stove, you go for a swim.
  - B. The word began with the Roman word for the sun, which is *sol*.
  - C. Collecting sunshine isn't easy, and sunshine isn't easy to store, either.
  - D. The longer it takes something to heat up, the longer that thing holds the heat.
  
2. Why do people burn their feet on the sand at the beach?
  - A. Their feet are slippery.
  - B. Their feet are wet.
  - C. The sand absorbs heat.
  - D. The sand is a solid.

3. Write a sentence to explain what is described in each section of the selection.

**Solar Energy**

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**Catching Sunshine**

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**Storing Heat**

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**Keeping Heat in One Place**

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## Mae C. Jamison Reading Passage Questions

4. Complete the chart with examples of cause and effect from the selection.

**Cause and Effect Chart**

| Cause                                | Effect                                 |
|--------------------------------------|--|
| She went through a year of training. |  |
|                                      | She received a scholarship to college. |
| She loved to learn.                  |  |
|                                      | She joined the Peace Corps.            |

5. Why did Mae Jemison go to Sierra Leone and Liberia?
- A. She wanted to become an astronaut.
  - B. She wanted to go to another country.
  - C. She wanted to attend school there.
  - D. She wanted to help the people there.

6. What is the main idea of this selection?
- A. Mae Jemison worked hard and became the first black woman in space.
  - B. Mae Jemison was the first black woman doctor to graduate from Stanford.
  - C. Mae Jemison was the first woman to join the Peace Corps.
  - D. Mae Jemison was the first woman doctor to go to Sierra Leone.

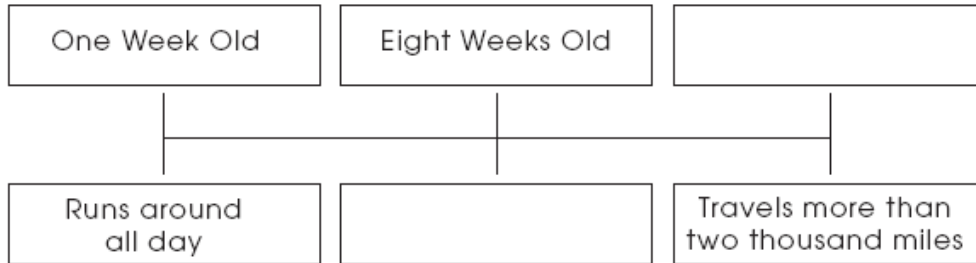
### Rivers to the Sea Reading Passage Questions

7. What are two effects of the river's swiftly moving current?
- a. \_\_\_\_\_
  - b. \_\_\_\_\_
8. Why did the author write this selection?
- A. to encourage us to take part in water sports in rivers and streams
  - B. to entertain us with tales of his boyhood fun along the river
  - C. to tell what he learned about a river from its beginning to its end
  - D. to explain how a river becomes polluted and endangered
9. Which of these sentences is an opinion?
- A. "As trickles follow the easiest paths down, they combine to form brooks."
  - B. "Rivers work hard. They're great diggers."
  - C. "Rivers are also carriers. They carry rocks and sand downstream."
  - D. "The Connecticut River flows out of Vermont, south into Massachusetts, then into Connecticut."

## Little Caribou Reading Passage Questions

10. Use information from the selection to complete the timeline below. Provide a title for the timeline.

Title: \_\_\_\_\_



11. Write a detail from the selection that supports the main idea of each section. The first one is done for you.

### **A Baby Caribou Is Born**

The mother caribou urges the newborn calf to stand on shaky legs.

### **Winter in the Forest**

\_\_\_\_\_  
\_\_\_\_\_

### **The Journey Home**

\_\_\_\_\_  
\_\_\_\_\_

## The Apple-Seed Man Reading Passage Questions

12. Use the selection to explain how John Chapman collected and prepared apple seeds.

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Use the selection to explain how John Chapman planted and cared for apple trees.

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13. Which of these statements is an opinion?

- A. John Chapman had unusual ways.
- B. John Chapman was born in 1774.
- C. John Chapman left books with families.
- D. John Chapman planted as far west as Indiana.

14. What is the main idea of this selection?

- A. John Chapman was born in Massachusetts but moved west as a young man.
- B. John Chapman spent his life helping people by planting apple orchards.
- C. The Northwest Territory was an exciting place full of opportunity.
- D. Apples are a delicious and an important food well-loved by Americans.



Directions: Read the selection.

## One Little Can

by David LaRochelle



Rachel scowled in disgust as she walked to the school bus stop. The sidewalk was littered with newspapers and candy wrappers. The front door to Lee's Grocery was covered with ugly graffiti.

"Yuck!" Rachel said as she brought her foot back to kick a soda can off the curb. Then she changed her mind, picked the can up, and tossed it into a litter basket on the corner. She hurried to meet her friends at the bus stop.

Mr. Lee scowled as he looked out his grocery store window. "Hmph," he said as the girl passed by. She's probably another troublemaker, he thought.

To confirm his suspicion, the girl stepped back to kick a piece of garbage into the street. What she did next, though, surprised him. She bent down, picked up the old can, and dropped it into a trash can.

That's a switch, thought Mr. Lee.

All morning, he kept picturing that girl. At noon, when he walked to the corner to mail a letter, he noticed the litter that had piled up in front of his store.

He thought of that girl again, then got a broom and started sweeping the walk.

Mrs. Polansky peered out from between the window blinds in her living room. A crumpled sheet of newspaper blew into her yard and got snagged on a rosebush. She hated living across the street from Lee's Grocery. Customers were always dropping their trash in front of the store, and it would blow into her yard.

Maybe I should write a letter to the city council, she thought. If Mr. Lee is going to let his store be such an eyesore, maybe it should be shut down.

Just then Mr. Lee walked out his door. He was sweeping up the trash on his sidewalk.

That's a change, thought Mrs. Polansky.

A few minutes later, when she went to let her cat out, she noticed that the stray newspaper had unsnagged itself from her rosebush and was tumbling into the next yard.

Mrs. Polansky looked around at her own unkempt yard.

"Well, Fluffy," she said to her cat, "Mr. Lee isn't the only one who can do a bit of outdoor spring cleaning."

She went inside and got her work gloves and a trash bag.

When Rachel got off the school bus that afternoon, the first thing she noticed was the woman planting geraniums around the edges of her front walk. Hadn't that yard been strewn with dead branches and soggy newspapers this morning? Several other yards looked tidier, too.

When she passed Lee's Grocery, Mr. Lee was out front painting his door. He smiled at her as she walked by.

Maybe my neighborhood doesn't look so bad after all, Rachel thought. She knelt down and picked up a lone candy bar wrapper, slam-dunked it into the litter basket, and sang out loud the rest of the way home.

Directions: Read the selection.

## The Wag-o-meter Study

by Suzanne M. Baur



I have a puppy named Ginger who likes it when I call her. But sometimes I call her "Gingy" or "GinGin," and sometimes I just say "Puppy." One day I decided to try to figure out which name she likes best.

I wanted to be very scientific about discovering her favorite name, so I decided to do a research experiment. Since Ginger wags her tail whenever she's happy, I would use it as a tool. I called it a *wag-o-meter*. I would count the number of wags on the wag-o-meter when I called her by each name and measure how happy she was.

Ginger knows her name, but does she know her nicknames, too? Which name is her favorite? These are the questions I would answer in The Wag-o-meter Study.

### The Hypothesis

A *hypothesis* is an educated guess about what will happen in an experiment. What did I think would happen in The Wag-o-meter Study? I thought that Ginger would wag her tail most when I said "Ginger," because that's her real name. I thought I would get fewer tail wags from Gingy, GinGin, or Puppy,

because they are nicknames, and I don't use her nicknames as often as I use her real name.

### **The Control Word**

But what if Ginger just likes hearing my voice? I decided to throw in a *control word* and say it in exactly the same tone of voice as I said her real name and nicknames. A control word would help me measure other reasons for Ginger's wagging besides the names themselves. I picked "cabbage" to be my control word. Maybe I'd get a few thumps on the wag-o-meter if I called her "Cabbage" just because I would say it as though I was calling her. But there should be fewer wags than when I called her real name or any of her nicknames.

### **The Data**

Now I was ready to gather the *data*. Data is information measured in an experiment, in this case, the number of wags on the wag-o-meter.

Ginger was sitting on the floor. I sat down on a chair near her. "Ginger," I said. *Thump thump thump thump thump thump* went her tail. Six thumps on the wag-o-meter.

"Gingy," I said, trying to use the same tone of voice. *Thump thump thump thump* went her tail. Four wags.

"GinGin," I said. *Thump thump thump*. Three wags. I guess she doesn't like that name as much.

"Puppy," I said. *Thump thump thump thump thump thump thump thump*. Eight wags! That was even more than her real name. She must really like being called Puppy.

"Cabbage," I said, careful to use the same tone of voice as when I called her the other names. *Thump thump*. Two wags, that was all.

I said all the words again: her real name, her nicknames, and the word "cabbage," but this time I switched around the order. The wag-o-meter measured the same number of tail wags for each word as the first time.

## **The Results**

Almost everything happened as I thought it would. I got six wags for Ginger, which was more than the four wags for Gingy or the three for GinGin. I got only two wags for Cabbage. But that was a silly word I said to see if she would use her wag-o-meter just because she heard my voice.

There was one thing I was wrong about. I got eight wags when I called her Puppy. That wasn't her real name. Why did I get eight wags?

## **The Conclusion**

I thought about it for a while. Ginger knows her name, but maybe she doesn't always like to hear her name. Sometimes I say, "Ginger, it's time for your bath," or "Ginger, did you chew up my slippers?"

When I call her "Puppy" though, I'm usually holding her and petting her. The only thing I say with this special nickname is "Puppy, I love you." Maybe that's why she likes it best.

**Directions: Read the selection.**

## **The Old Coat**

by Siv Cedering

The old coat that hangs on the porch  
doesn't seem to think  
or dream,

but it goes along  
when grandpa walks to the barn  
to see that the horse is fed.

It covers grandma's apron  
when she goes outside  
to give the birds some bread.

It flaps its sleeves  
when mother runs to the coop  
to check if the hens have laid.

It buttons up tight in the storm  
to keep father warm  
when he puts the tools away in the shed.

And in the evening, before I go to bed,  
it stands with sleeves rolled up  
in the yard

looking for coat constellations  
or the flapping wings  
of some old coat bird.



Directions: Read the selection.

## Putting the Sun to Work

by Jeanne Bendick



It's a hot summer day. You, your family, and some friends decide to drive to a park near the beach for a cookout.

When you walk over to the beach, the sand and the rocks are so hot that they hurt your bare feet. You put on sneakers in a hurry.

While the charcoal fire is starting to burn in the cookout stove, you go for a swim. The water feels good. It is warm at the top, but cooler down around your toes. After you swim, you dry yourself with a towel.

For lunch there are hot dogs, corn, salad, rolls, and fruit. By the time the corn and hot dogs are cooked, all the towels are dry. You had spread them out on the rocks, in the sun.

While you were having fun at the beach, work was being done. Energy from the sun was doing the work.

Heat energy from the sun dried the towels. It heated the sand, the rocks, the water, and the air.

## **Solar Energy**

As long as the sun shines, the earth will not run out of energy. The sun pours more energy onto earth than we can ever use. Most of that energy comes to us as heat and light.

Energy from the sun is called solar energy. Anything to do with sun is called "solar." The word began with the Roman word for the sun, which is *sol*.

Solar energy is a safe kind of energy. It doesn't cause pollution or have dangerous leftovers. That is why scientists and inventors are trying different ways to capture and use the sun's energy. They hope to find a way for the sun to do some of the jobs other types of fuels have been doing for a long time.

To make the sun do work like that, scientists have to solve some problems. They have to collect the sun's energy. Collecting sunshine isn't easy, and sunshine isn't easy to store, either.

## **Catching Sunshine**

Is it possible to catch the sun's heat in a house? Yes, it is. Some houses collect the sun's heat on the roof, move the heat indoors, and store some of it to use later. A house like that is called a solar house.

People who build solar houses have learned how to do those things by noticing how the earth itself uses solar energy.

Remember the beach we talked about earlier? Remember the hot sand and the hot rocks? Some materials take in heat energy from the sun and hold it. These materials absorb the heat. Sand and rocks do this. So do some other solid materials, such as metals. Water absorbs the sun's heat, too.

## **Storing Heat**

The longer it takes something to heat up, the longer that thing holds the heat. Materials that heat up fast also cool off fast.

If you were to go back to the beach in the evening after sunset, the sand and the rocks, which heated up fast, would be cool. The water, which heated up slowly, would still be warm.



Heat always moves from a warmer place or thing to a cooler one.

Remember when the hot sand on the beach burned your feet? Heat from the sand was moving into your cooler feet! Once you understand how heat moves into things, through things, and out of things, it is easy to see how a solar house works.

### **Keeping Heat in One Place**

Once the house is warm, what keeps the heat from moving out of the warm house into the cool outside air?

Remember the sneakers you put on when the hot sand was burning your feet? They kept the heat from moving from the sand into your feet. The sneakers were insulation. Insulation is any material that keeps heat (or other kinds of energy) from moving from place to place.

Insulation in a house keeps heat from moving out of the house in the winter. It also keeps heat from moving into the house in the summer.

It does not take a lot of heat to make a house comfortable. Solar energy can do that job in many areas of the world.

**Directions: Read the selection.**

## **Mae C. Jemison**

by Wade Hudson



At the Kennedy Space Center in Florida, scientists got ready for an exciting launch. The space shuttle *Endeavour* was on the launch pad. Its nose pointed straight up toward the clouds. Inside, seven astronauts sat very still in their seats. Each waited for *Endeavour* to blast off into space. One of the astronauts was Mae C. Jemison.

Mae was born in Decatur, Georgia. Her family moved to Chicago when she was very young. Her parents told her to study hard and learn as much as she could. Mae loved to learn. She spent many hours in the library reading books about science and science fiction.

Mae grew up in the 1960s. The whole country was excited about space travel and space exploration. Like many other girls and boys, Mae wanted to be an astronaut. But there were no women astronauts in America then. There were no black astronauts, either. So what were *her* chances? Mae just kept on dreaming about exploring in space. Nothing was going to stop her.

When she was sixteen, Mae graduated from high school. Her grades were very good. Stanford University gave her a scholarship and she went there. Mae

wanted to be a doctor, so she went to medical school. Later Mae joined the Peace Corps to help needy people in other countries. She went to Sierra Leone and Liberia in West Africa. She used what she had learned in medical school to help the people there.

But Mae still dreamed of becoming an astronaut. She returned to the United States in 1985. She applied to the astronaut program at the National Aeronautics and Space Administration (NASA).

One day, in August 1987, a man from NASA called Jemison with great news. Jemison had been chosen for the astronaut program. She was very happy. Nearly two thousand people had applied to the program. Only fifteen had been selected. Mae Jemison felt really special.

The training program was hard. Astronauts must be strong and fit, so they exercise. They study mathematics, earth resources, meteorology, guidance and navigation, astronomy, physics, and computers. There is much to learn to get ready for space travel.

After training for a year, Mae C. Jemison was officially an astronaut. She was eager to travel into space, but she had to wait her turn. Finally, in 1991, she was selected for the space flight on the *Endeavour*.

Now Mae had to train for the trip. She was chosen to be the science mission specialist. She had experiments to do while in space.

The day finally arrived. As *Endeavour* sped away from Earth, Mae C. Jemison became the first black woman to explore space.

It was a great day for this proud American. She was very happy. Her dream had come true.

Directions: Read the selection.

## Tanya's City Garden

by Michelle Dionetti



Tanya leaned out her apartment window. She looked down to the cement alley below. The brick walls were old and dirty. The fire hydrant needed paint.

There was nothing good to look at. Tanya sighed and shook her head.

"Look, Ramon," she said to her brother. "Everything out there is gray!"

"What can YOU do about it?" he asked.

"I'm going to make a garden," said Tanya.

"In the cement?" hooted Ramon.

"Just wait and see!" said Tanya.

Tanya pulled a plastic rose out of the vase on her dresser. She put the rose in a jar. Then she grabbed a broom and took the vase down to the sidewalk.

The alley between the buildings was filthy. Tanya's broom stirred up swirls of dust. When the cement was clean, she put her rose in the middle of the alley.

"I have an idea," said Max the artist. He held a box of paints and a fistful of brushes. "You can't grow grass here," said Max. "And you can't see much sky. I'll paint you a view!"

With his paints, Max turned the brick apartment walls into a scene of hills and trees and sky. He let Ramon's class paint in flowers and bugs and birds.

Mrs. Primrose, the florist, came down the sidewalk pulling a wagon. In the wagon was a potted tree, which she placed near the bench.

Then down the street came Miriam Grand, the television executive. *Clip, clip, clip* went the heels of her shoes. When she came to Tanya's garden, she stopped with a jerk.

"What's this?" she cried.

"It's a city garden!" chorused Tanya, Ramon, Ms. Jones, Gerald, Ms. Metoyer, Ramon's class, Mrs. Primrose, and Max.

"It's a *story!*" cried Miriam Grand. "It's *news!*"

And away she ran, her heels *clip-clip-clipping*, to call her office.

Soon a shiny car and a big van stopped at the end of the alley. Out of the car jumped the mayor of the city. Out of the van jumped a camera crew.

"Who started the garden?" they asked.

"Tanya!" everyone shouted, pushing her forward.

The mayor cleared his throat. The cameras started rolling.

"I present this Ribbon of Honor to Tanya," said the mayor, "as an award for beautifying the city!"

Tanya took the award in her hand and looked around her. The brick walls were no longer dirty. The alley was clean. The garden was beautiful to look at.

Then Tanya looked around at her neighbors and smiled.

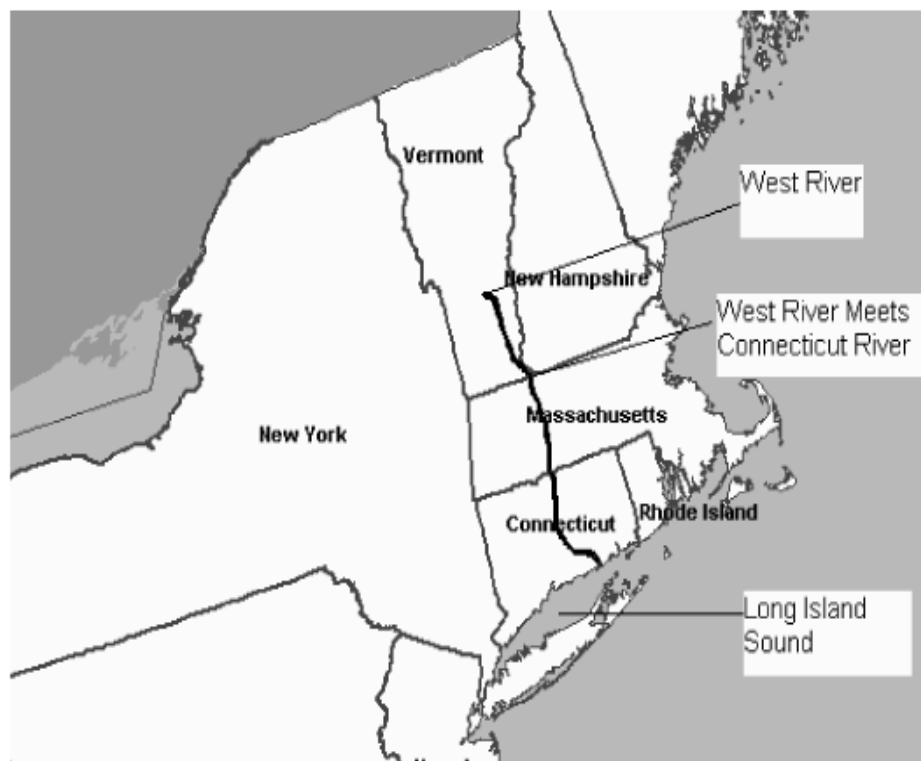
"Thank you, Mr. Mayor," she said, "but this is not my garden. It's our garden!"

She hung the ribbon on the fire escape. "So this award is for all of us," she cried. And Tanya's neighbors—her fellow city gardeners—cheered.

Directions: Read the selection.

## River to the Sea

by Stephen R. Swinburne



I live beside the West River in Vermont. It's deep enough to swim in and as wide as a two-lane road. I've fished and skimmed stones on the West River. But I didn't know where it began or where it ended. I decided to find out.

Rivers often start in the mountains with no more than a trickle. Rain, melting snow, and water from springs have nowhere to go but down. As trickles follow the easiest paths down, they combine to form brooks. Brooks join to become streams, and streams meet to become rivers. As more and more water joins a river, it gets wider and deeper and faster.

That's what happens to the West River. I followed a map to learn this. I drove into the wooded hills about fifteen miles north of my house. I saw that the West River begins as a dribble, skinny as a pencil. By the time it reaches my town, it has become a river.

Rivers work hard. They're great diggers. The swift current of a river is a watery shovel digging up pebbles, silt, and sand. Rivers are also carriers. They carry lots of rocks and sand downstream.

Rivers are great places to see fish, insects, and other wildlife. Lots of animals and birds live near rivers because there's a good food supply, plenty of drinking water, nesting places, and shelter. To see wildlife, I step quietly. I never know what might be around the next bend—a deer and fawn drinking, a family of ducks, a dragonfly skimming the water hunting mosquitoes. Rivers are a source of life to many creatures.

Most rivers eventually empty into the sea. Once again, I got into my car with a map, this time to see where the West River goes. I followed it through the countryside of southern Vermont to find that it merges with the wide Connecticut River. The Connecticut River flows out of Vermont, south into Massachusetts, then into Connecticut. It finally joins Long Island Sound and the Atlantic Ocean.

The river outside my door is connected to faraway places. It's neat to know that if I launched a sturdy boat into the river by my house, someday it might reach the open sea. That's the best thing about a river. It's water on the move, and it knows just where to go.

Directions: Read the selection.

## Hamburger Me at the Car!

by Unknown



Watson sat on the edge of his bed and looked out his bedroom window. He glanced at his watch. It was 9:59 a.m. A moment later, at exactly 10:00, he saw Ross Bailey leave his house. Ross strolled down the sidewalk with an empty white sack slung over his shoulder.

Watson felt like a detective on his first case. He raced down the steps to follow Ross. Every Saturday at exactly 10:00 a.m., Ross Bailey left with that empty sack. He always returned later with his friend Buddy and a full sack. *Just where were they going, and what did they put in that sack?* Watson meant to find out!

The front door slammed behind Watson as he left to follow Ross down the street.

Watson raced to the end of the street and looked both ways, but Ross had disappeared.

For the rest of the week, Watson watched Ross on the school bus and in the classroom. He followed him home. But nothing happened.



Then, on Friday afternoon, Watson saw Ross pass a note to Buddy. Buddy read the note, crumpled it up, and tossed it across the room and into the trash can. Then he smiled at Ross and signaled two thumbs up.

*A clue!* Watson thought as he eyed the trash can. When class ended, Watson was the last one out. As he passed the trash can, he scooped up the note.

At home, Watson unfolded the note. This is how it looked:

"Hamburger me at the car on Saturday! The money will be all clock!" Watson read. This makes no sense at all, he thought. *It must be a secret code!*

During dinner, Watson thought about the note. He thought about it as he helped wash dishes and again during his bath. That night, he closed his eyes and tried to sleep, but all he could think about was the note.

*A hamburger is meat, Watson thought. The car is parked, and time goes by in hours!* All at once, it made sense. **Meet** me at the **park** on Saturday. The **money** will be all **ours!**

Watson jumped out of bed early Saturday morning and hurried to the park. It wasn't long before Ross and Buddy arrived. Ross was carrying the sack. Watson huddled down behind the bush.

Watson watched as Ross and Buddy wandered around the edge of the park. They bent down every now and then to pick up shiny objects and drop them into the sack.

*What could the objects be?* Watson wondered. *They're too big to be coins. Could they be silver or gold?*

The sack was almost full when Ross and Buddy walked by Watson's hiding place. Suddenly, Watson jumped out.

"I caught you!" he shouted.

The boys jumped and dropped the sack. Ross stared at Watson. "Caught us doing what?" he demanded.

"Getting the money!"

For a moment, Ross and Buddy looked confused. Then Ross began to laugh.

"You must have read my note!" he said.

Buddy laughed too. "But we haven't gotten the money yet," he said as he turned the sack upside down. Aluminum cans spilled to the ground.

Watson looked at the cans, then at the boys.

"We get the money when we take the cans to the recycling center," Buddy explained. "You can help us if you want to."

Watson was quiet for a moment. "Thanks," he said finally, "but I still have some work to do."

Already, Watson was planning his next case. *Just who is dropping empty cans in the park? And why?* Watson meant to find out!

Directions: Read the selection.

## Little Caribou

by Sarah Fox-Davies



### A Baby Caribou Is Born

In the far north, at the edge of the frozen Arctic Ocean, is a land without trees called the tundra. There in early spring, a little caribou calf is born. Her mother, Cow Caribou, urges her to stand on her shaky new legs.

### Life in the Tundra

The tundra is bitterly cold. There is no shelter from the howling wind, but Little Caribou drinks her mother's warm milk and grows strong. When she is one week old, Little Caribou is strong enough to run around all day.

A huge herd of caribou cows roams the tundra, and with the cows are lots of other calves for Little Caribou to play with.

Soon the sun shines day and night. Even at midnight it is still light. The grass grows fresh green leaves, and flowers bloom. Cow Caribou eagerly eats the young plants.

### The Journey South for the Winter

When Little Caribou is eight weeks old, the summer heat begins to fade. Sharp frosts turn the tundra to red and gold. Soon the tundra will be covered with

ice. It is time for the caribou to move south, toward the forests where they will spend the winter.

Little Caribou has grown small antler spikes, and she is strong like her mother. Together they walk, day after day, and swim through deep, fast-flowing water.

Cow Caribou leads her calf across steep mountain slopes and down sheltered valleys where small trees grow. The herd walks along trails worn deep and smooth by countless caribou that have gone this way before.

When winter comes, thick snow covers the ground. The days get shorter and shorter, until there is almost constant darkness.

### **Winter in the Forest**

Icy winds blow across the frozen lakes, but Little Caribou is warm in her dense fur coat. Cow Caribou digs craters in the snow with her hooves to find plants for them to eat. For many months they roam the forest always moving in search of food.

Then, slowly, light returns to the forest. Cow Caribou senses that spring is coming. It is time to show Little Caribou the way back through the mountains to the tundra. From every part of the forest, other cows and calves are traveling north.

### **The Journey Home**

For days and days, the caribou travel through the mountains. Blizzards blow, hiding the sun, and there is hardly anything to eat.

At last they reach the tundra. Soon the snow melts and grass starts to grow. In a quiet place, Cow Caribou gives birth to a new baby calf.

Little Caribou is almost fully grown. She has survived the long winter in the forest and learned to find food for herself. In her first year she has walked more than two thousand miles. Born to travel, Little Caribou will spend her whole life on the move. Her home is the herd.

Directions: Read the selection.

## Grocery Oasis

By Ruth Haq

When we're tired of tramping on hot concrete  
That toasts our sneakers  
And roasts our feet,  
And the sidewalk sizzles,  
And the pavement shimmers  
With wavy wiggles of radiant heat,

We come at last to the welcome door  
Of the air-conditioned  
Grocery store.  
What soothing coolness,  
What frigid freshness—  
From desert sand to oasis floor!

Let's stay all day,  
Let's spend a while  
In the frozen juice  
And ice cream aisle!  
Choosing greens  
Will be specially nice—  
We can dip our hands  
In the chips of ice.

Let's not go out again on the street  
To the sizzling sidewalk and hot concrete;  
We'll be scorched if we stay in that heat anymore—  
Let's wait for night in the grocery store!



**Directions: Read the selection.**

## **The Parcel Post Kid**

by Michael O. Tunnell



On a cold February morning in 1914, Leonard Mochel arrived for work. He was a railroad postal clerk and rode in the mail car that traveled between Grangeville and Lewiston, Idaho. But on this particular morning, he had more than his lunch with him. Accompanying him was his five-year-old cousin, Charlotte May Pierstorff.

When the postmaster saw May and her small traveling bag, he thought that Leonard was going to buy her a train ticket. Imagine his surprise when Leonard announced that he wanted to mail May to her grandmother in Lewiston!

May's train fare would have cost \$1.55, a lot of money in those days. But May's parents had discovered that she could be mailed for only 53¢—if the post office would accept May as a package. Leonard thought it was a crazy idea, but he agreed to try.

We would never think of mailing a human being today, but things were different in 1914. For one thing, sending heavy packages by mail was something new, so who could guess what might be allowed? And in 1914, mail was carried in rolling post offices instead of in the bellies of airplanes or the backs of trucks. Postal

clerks like Leonard Mochel would sort mail while trains traveled between towns. If May were mailed, she would have her cousin Leonard's company as well as a safe and comfortable place to ride.

When the postmaster checked his book of rules, he found several things that he could not mail. No poisons. No insects. No reptiles. Nothing that smelled strongly. According to Leonard, the postmaster had a few funny things to say that morning. Maybe he sniffed May, laughed, and declared that she passed the smell test.

Live animals were also forbidden, but the postmaster found that it was all right to send baby chicks by parcel post. So he classified May as a baby chick, weighed her in at  $48\frac{1}{2}$  pounds (which may have included her small suitcase), and attached 53¢ in postage to her bag. As well as being "stamped," May was also "addressed":

*Deliver to Mrs. C. G. Vennigerholz*

*1156 Twelfth Avenue*

*Lewiston, Idaho*

Leonard helped May into the mail car, and at 7:00 A.M., the train chugged out of the station.

As it jolted and swayed over the tracks, May began to get dizzy. She hurried to the door to get some fresh air. Immediately Harry Morris, the conductor, spotted her and demanded to see May's ticket. When Leonard explained that May was actually a parcel and showed him the 53¢ in stamps, Mr. Morris laughed. "I've seen everything now!" he said. He was certain May's adventure would make a terrific story for the newspapers.

Traveling about nineteen miles an hour, the train finally reached Lewiston at 11:00 A.M. Grandma Mary was flabbergasted when May appeared on her doorstep. No one had told her that her granddaughter was coming to visit, and delivery by mail was an extra shock!

Directions: Read the selection.

## Memory

by Mary O'Neill



Memory is a tape recorder  
And there's one in every head  
Storing everything we've ever seen,  
Or felt, or heard, or said.  
The word, *remember*, simply means  
We're playing back a part  
Of all that's been recorded there  
And lives close to our heart.  
Sad thing, sweet thing,  
Whatever it be.  
The calling it back is a  
Memory.



**Directions: Read the selection.**

## **The Apple-Seed Man**

by Paula Appling



Imagine sleeping on a bed of earth with the sky as your roof. Imagine birds and wolves and snakes as your only companions for weeks. Imagine eating nuts and berries and roots that you've freshly harvested and prepared.

John Chapman chose this life for most of his seventy-one years.

John Chapman was born in 1774 in the village of Leominster, Massachusetts, just before the Revolutionary War for independence from Britain began. It was autumn, the time of year when apples are harvested and cider is made.

When he was about six, John's family moved southwest to Longmeadow, Massachusetts. The young boy probably learned his letters in a one-room schoolhouse.

In the 1790s, the United States included the eastern states and land south of the Great Lakes and west to the Mississippi River. The Northwest Territory—the land west of Pennsylvania between the Ohio and Mississippi rivers—was just opening up for settlement. Men who had fought in the Revolutionary War were seeking new opportunities and heading west. John Chapman, now a young man, decided to join them.

John took with him little more than his knowledge of planting apple orchards and his faith.

John dedicated his life to helping people. He planted apple orchards so families who followed him out west would have food. He read to families he visited, or left books with them. He loved children and would talk to them and listen to their stories. He gained the respect of the Indians he met as he traveled the woods and rivers of the new territories.

John gathered apple seeds whenever he could. Sometimes he collected them from **cider mills**. He would separate the seeds from the apple pulp, then wash and dry them. He walked the land that pioneers would eventually come to and planted orchards for their benefit.

If John came upon a pioneer family at a time that was not right for planting, he might leave a bag of seeds with them. The children would always want to know how long it would be until the seeds turned into apples.

John planted trees wherever he went, usually in clearings near rivers or streams. He surrounded his plantings with natural fences of brush and branches to keep animals away.

Sometimes he let the trees grow right where he had planted them. But usually he'd return after two years and take the **saplings**, pack them carefully, and leave them at a **way station**, with a family, or at an inn, in exchange for clothing, food, or money. Sometimes he gave the trees away.

John Chapman planted thousands of apple trees as far west as Indiana. His unusual ways, kindness, and giving heart made him known to pioneers he had never met. You might know him by his other, more popular name: Johnny Appleseed.