

Name:

Date:

The Storm Chasers of Silver Lake



The weather forecast called for sunshine in the morning and thunderstorms later that afternoon. Mrs. Harper's fourth-grade class was excited to visit the Silver Lake Weather Station, where meteorologists studied weather and created forecasts. When the bus arrived, the students noticed a tall weather tower and several instruments spinning in the breeze.

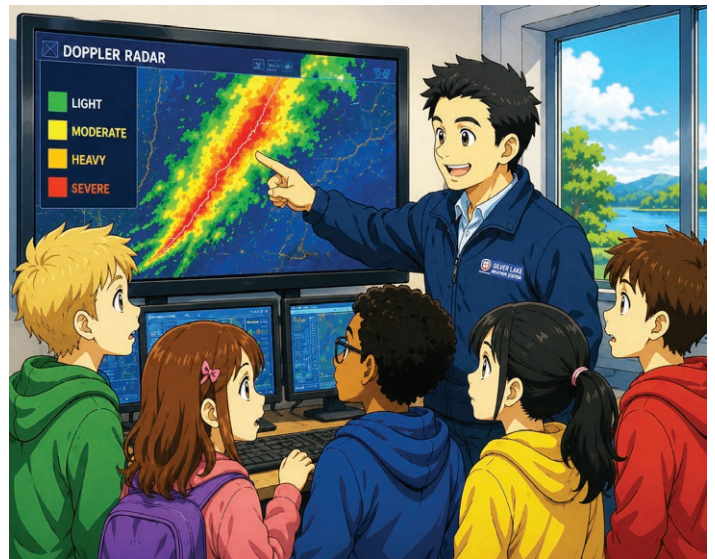
"What clues can you find about today's weather?" asked Mr. Alvarez, the station's lead meteorologist. Tyler noticed fluffy clouds, Maya felt a gentle wind, and Noah heard no thunder. Mr. Alvarez nodded. "Scientists begin by observing the world around them."

Inside, colorful radar maps showed patches of green, yellow, orange, and red. Mr. Alvarez explained that radar shows where rain and storms are located and how strong they are. Green showed light rain, while red often showed the strongest storms. He also explained that wind pushes storms across the land.

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Outside, the class examined weather instruments. An anemometer measured wind speed, a wind vane showed wind direction, and a rain gauge measured rainfall. Mr. Alvarez explained that scientists need accurate measurements so they can compare one storm with another.

Back inside, the radar had changed. Yellow and orange areas were spreading across the screen. "A line of thunderstorms is forming much earlier than expected," Mr. Alvarez said. Wind high in the atmosphere was pushing the storm toward Silver Lake. He reminded the students that weather can change quickly, so meteorologists watch it carefully.



Soon, sunshine disappeared behind dark gray clouds and the wind grew stronger. A deep rumble of thunder echoed across the sky. Mr. Alvarez taught the class an important safety rule: "When thunder roars, go indoors." Rain began tapping against the windows, the anemometer spun faster, and the rain gauge started to fill.

The students watched the instruments and radar while the storm moved overhead. A flash of lightning lit the sky, followed four seconds later by thunder. Mr. Alvarez explained that because light travels faster than sound, counting the seconds between lightning and thunder can help estimate how far away a storm is.

As the storm passed, the students recorded wind speed, rainfall, and radar changes in their journals. Mr. Alvarez explained that every measurement becomes part of a larger picture. Comparing many storms helps meteorologists improve forecasts and keep people safe.

After nearly an hour, the rain slowed and blue sky appeared. Mr. Alvarez explained that forecasting is not guessing—it means collecting clues, comparing them with past weather, and using science to predict what may happen next.

Before leaving, each student received a Junior Weather Observer certificate. On the bus, Mrs. Harper asked what they had learned. "Storms leave clues," Emma said. "And scientists know how to read those clues," Tyler added. As the bus reached school, a rainbow stretched across the sky above Silver Lake.

The Storm Chasers of Silver Lake

Multiple Choice

1. Why did Mrs. Harper's class visit the Silver Lake Weather Station?
 - A. To watch a movie about storms
 - B. To learn how meteorologists study and predict weather
 - C. To help repair weather equipment
 - D. To collect rainwater

2. What does a meteorologist do?
 - A. Studies fossils
 - B. Predicts earthquakes
 - C. Studies weather and creates forecasts
 - D. Builds weather stations

3. Which instrument measures wind speed?
 - A. Rain gauge
 - B. Thermometer
 - C. Anemometer
 - D. Wind vane

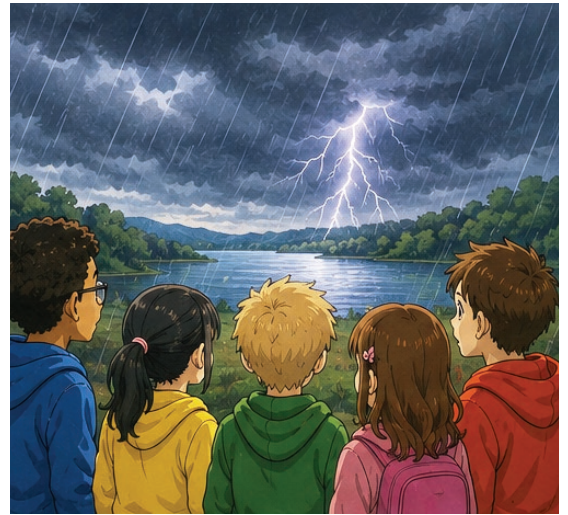
4. What does a wind vane measure?
 - A. Rainfall
 - B. Temperature
 - C. Wind direction
 - D. Air pressure

5. Why did Mr. Alvarez become interested in the radar image?
 - A. The computers stopped working.
 - B. A line of thunderstorms was forming earlier than expected.
 - C. The radar showed snow.
 - D. Birds appeared on the radar.



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6. Which clue showed that the storm was getting closer?
 - A. The sun became brighter.
 - B. The wind became calmer.
 - C. Dark clouds gathered and the wind increased.
 - D. The temperature became warmer.
7. Why did the students count the seconds between the lightning and thunder?
 - A. To measure rainfall
 - B. To estimate how far away the storm was
 - C. To predict tomorrow's weather
 - D. To measure wind speed
8. What lesson did Mr. Alvarez want the students to learn?
 - A. Weather forecasting is mostly luck.
 - B. Storms can never be predicted.
 - C. Careful observations help scientists understand weather.
 - D. Thunderstorms are always dangerous.
9. Which word best describes Mr. Alvarez?
 - A. Careless
 - B. Knowledgeable
 - C. Nervous
 - D. Forgetful
10. Which sentence best expresses the theme of the passage?
 - A. Science uses careful observations to solve problems.
 - B. Thunderstorms should always be avoided.
 - C. Rain only happens in the spring.
 - D. Computers always know the weather.



The Storm Chasers of Silver Lake

Short Answer

11. Why did Mr. Alvarez ask the students to observe the weather before entering the station??

12. Explain how radar helps meteorologists.

13. What happened outside that showed the thunderstorm was approaching? List at least three clues from the passage.

Vocabulary

A. measures rainfall

B. detects rain and storms

C. measures wind speed

D. shows wind direction

14. anemometer _____ 15. wind vane _____ 16. rain gauge _____ 17. radar _____

Cause & Effect

18. **Cause:** A line of thunderstorms formed earlier than expected.

Effect: _____

19. **Cause:** The students carefully recorded observations.

Effect: _____

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Sequence

20. Number the events in order from 1–6.

_____ The students received Junior Weather Observer certificates.

_____ The class arrived at the weather station.

_____ Thunder rumbled across the sky.

_____ Students observed the weather outside.

_____ Rain began falling.

_____ A rainbow appeared.

Critical Thinking

21. What is the main idea of the passage?

22. Write three details that support the main idea.

A. _____

B. _____

C. _____

ANSWER KEY

Multiple Choice

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ANSWER KEY

Short Answer

11. Why did Mr. Alvarez ask the students to observe the weather before entering the station??

He wanted them to begin thinking like scientists by paying attention to what they could see, hear, and feel before looking at weather instruments.

12. Explain how radar helps meteorologists.

Radar shows where rain and storms are located, how strong they are, and how they are moving.

13. What happened outside that showed the thunderstorm was approaching? List at least three clues from the passage.

Possible answers: Dark clouds gathered. The wind became stronger. Leaves blew across the parking lot. Thunder could be heard. Rain began falling. Lightning appeared in the distance.

Vocabulary

A. measures rainfall

B. detects rain and storms

C. measures wind speed

D. shows wind direction

14. anemometer C 15. wind vane D 16. rain gauge A 17. radar B

Cause & Effect

18. **Cause:** A line of thunderstorms formed earlier than expected.

Possible effects: Mr. Alvarez watched the radar more closely. The students observed changing weather conditions. The class remained safely inside. Meteorologists continued monitoring the storm.

19. **Cause:** The students carefully recorded observations.

Possible effects: They learned how scientists collect data. They compared changes during the storm. They practiced thinking like meteorologists.

ANSWER KEY

Sequence

20. Number the events in order from 1–6.

- 2 The students received Junior Weather Observer certificates.
- 4 The class arrived at the weather station.
- 3 Thunder rumbled across the sky.
- 5 Students observed the weather outside.
- 1 Rain began falling.
- 6 A rainbow appeared.

Critical Thinking

21. What is the main idea of the passage?

Meteorologists use careful observations, scientific tools, and technology to understand weather and help keep people safe.

22. Write three details that support the main idea.

- A. **Possible answers: Students learned how radar works.**
Weather instruments measured wind and rainfall.
- B. **Scientists watched the approaching storm.**
The class recorded observations.
- C. **Thunder and lightning demonstrated changing weather.**