

Map Clues Ahead

Read weather-map information to identify fronts, systems, and measurements.

6.7.f “weather maps give basic information about fronts, systems, and weather measurements.”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each word or phrase that tells what a map symbol or measurement means, and circle each clue about movement or expected weather so you can connect map information to a forecast.

Reading a Weather Map

- ① Before school, Maya checks a weather map for her region. The map uses symbols and numbers to show conditions measured at weather stations. Near each station, a temperature tells how warm the air is, and a wind barb shows wind direction and speed. Lines joining places with equal air pressure are called isobars. Air pressure patterns help meteorologists locate large weather systems. A letter H marks a high-pressure system, which often brings sinking air and clearer skies. A letter L marks lower pressure, where clouds and precipitation are more likely.
- ② Fronts are boundaries between air masses. On a weather map, a cold front is shown by a line with triangles that point in the direction the colder air is moving. Cold fronts can bring brief heavy rain, gusty winds, and a drop in temperature. A warm front has semicircles pointing toward the direction warmer air is moving. It often brings widespread clouds and steadier precipitation. When a cold front catches a warm front, the map may show an occluded front. Front symbols help a reader predict changes as the front approaches.
- ③ On Maya's map, Pine Hill has a temperature of 68°F and wind from the south at 10 miles per hour. A cold-front line with triangles is west of Pine Hill, and its triangles point east. Farther east, River City is under an H and reports 72°F with light winds. The cold front is moving toward Pine Hill, so Maya expects a weather change there. She predicts gustier wind, possible rain, and cooler air after the front passes. She expects River City's high-pressure system to be linked with clearer conditions.

2 ANSWER WITH EVIDENCE Use the passage

1 Which town has a cold front moving toward it? What map clue proves this?

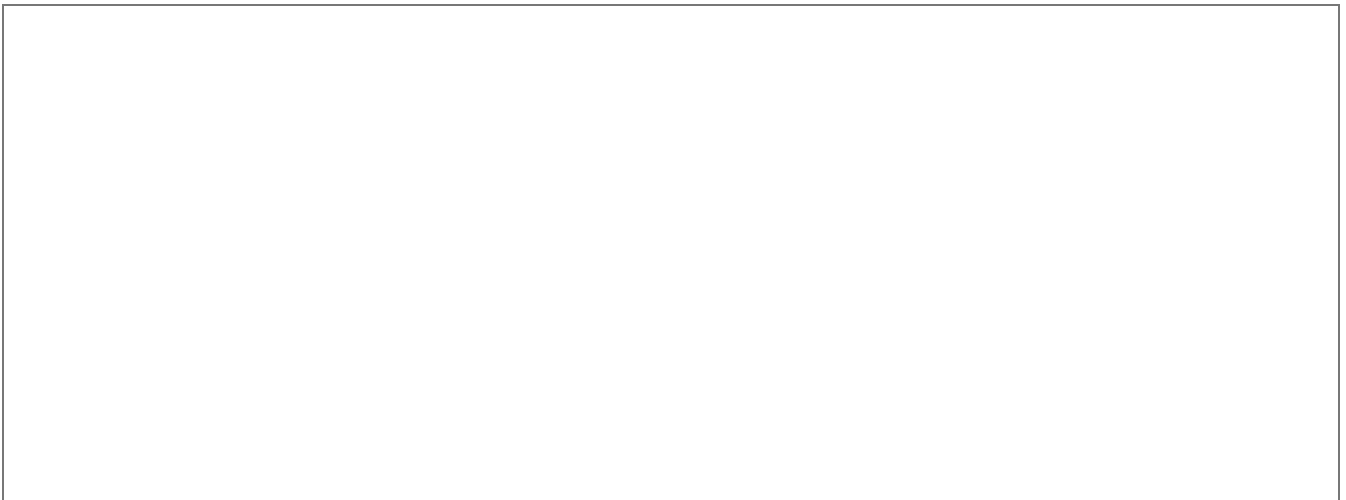
2 What temperature and wind information does the map give for Pine Hill?

3 Which town is more likely to have clearer conditions? Explain using the weather-map symbol.

4 Name two weather changes Maya predicts for Pine Hill after the cold front passes.

3 YOUR TURN Your own words

Create a simple weather-map sketch for two invented towns. Draw one H or L, one front line with correctly pointed triangles or semicircles, and a temperature plus wind direction for each town. Then write two sentences explaining weather one town may have and how the front or system supports your prediction.



PART 1 • READ AND MARK

Underline each word or phrase that tells what a map symbol or measurement means, and circle each clue about movement or expected weather so you can connect map information to a forecast. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Which town has a cold front moving toward it? What map clue proves this?	Pine Hill. The cold front is west of Pine Hill, and its triangles point east toward the town.
2	What temperature and wind information does the map give for Pine Hill?	Pine Hill is 68°F, with wind from the south at 10 miles per hour.
3	Which town is more likely to have clearer conditions? Explain using the weather-map symbol.	River City, because it is under an H, which marks a high-pressure system that often brings clearer skies.
4	Name two weather changes Maya predicts for Pine Hill after the cold front passes.	Any two: gustier wind, possible rain, and cooler air.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Sketch: Oak Town is 65°F with wind from the north and lies east of a cold-front line whose triangles point east. Sunnyvale is 74°F with wind from the west and lies under an H. Oak Town may get gustier wind, rain, and cooler air as the cold front arrives. Sunnyvale may have clearer weather because it is under high pressure.

Accept equivalent descriptions of front movement, weather measurements, and likely weather changes that match the passage. For the open task, check that the front symbols point in the stated direction of movement and that the written prediction fits the drawn front or pressure system.