One Day, Many Julys

Compare a day's weather with long-term patterns across regions.

E.7.9A.1 "Analyze and interpret weather patterns from various regions to differentiate between weather and climate."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline words in the passage that point to one day's weather, circle words that point to a long-term climate pattern, and write W or C beside each data column in the table to show which it describes.

A July Snapshot

1. At three imaginary weather stations, observers made a note on July 15. Harbor Bay sits near the ocean, Dry Flats lies on an inland plain, and Pine Ridge is high in the mountains. The table reports each station's high temperature and whether rain fell that day. These readings describe weather, the conditions at a particular place and time.

2. To compare climates, researchers also studied July records from the past 30 years. They found each station's average July daily high and the average number of July days with rain. Those values describe a long-term pattern, not a forecast for every day. Rainy days are counted when measurable rain falls at a station.

JULY WEATHER AND 30-YEAR JULY AVERAGES

Station and region	July 15: high, rain?	30-year average daily high	30-year average rainy days in July
Harbor Bay, coast	29°C, yes	26°C	9 days
Dry Flats, inland plain	24°C, yes	34°C	2 days
Pine Ridge, mountains	18°C, no	19°C	13 days

3. Weather and climate can appear to disagree because they answer different questions. A day's high temperature describes what happened once; an average high describes what is common across many Julys. Neither a hot day nor one storm can prove that a region's conditions have changed. Look for the time span behind a claim before deciding what it tells you.

2 ANSWER WITH EVIDENCE

Use the passage

1. Which region had rain on July 15 even though rain is uncommon there in July? Use the table to explain.

2. Harbor Bay was warmer than Dry Flats on July 15. Does Harbor Bay also have the warmer July climate? Explain with temperatures from the table.

3. Pine Ridge had no rain on July 15. Does that mean its July climate is dry? Use a number to support your answer.

4. Which two regions have the closest 30-year average July daily highs? How do their average numbers of rainy days compare?

3 YOUR TURN

Your own words

Invent a fourth region. In 3 to 4 sentences, report its weather on one July day, give it a believable 30-year July climate pattern, explain how that day can differ from the pattern, and compare its climate with one region in the table using a number.

ANSWER KEY

One Day, Many Julys

GRADE 7 · E.7.9A.1

PART 1 · READ AND MARK

Underline words in the passage that point to one day's weather, circle words that point to a long-term climate pattern, and write W or C beside each data column in the table to show which it describes. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Which region had rain on July 15 even though rain is uncommon there in July? Use the table to explain.	**Dry Flats had rain on July 15, but its 30-year average is only 2 rainy days in July.**
2	Harbor Bay was warmer than Dry Flats on July 15. Does Harbor Bay also have the warmer July climate? Explain with temperatures from the table.	**No. Harbor Bay reached 29°C and Dry Flats reached 24°C on July 15, but Dry Flats has the higher 30-year July average daily high, 34°C compared with 26°C.**
3	Pine Ridge had no rain on July 15. Does that mean its July climate is dry? Use a number to support your answer.	**No. Pine Ridge averages 13 rainy days in July over 30 years; one dry day does not describe its climate.**
4	Which two regions have the closest 30-year average July daily highs? How do their average numbers of rainy days compare?	**Harbor Bay and Pine Ridge are closest at 26°C and 19°C. Pine Ridge averages 13 rainy days in July, while Harbor Bay averages 9.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

On July 15, Cedar Valley reached 22°C and had no rain. Its 30-year average July daily high is 28°C, and it averages 6 rainy days in July. One cool, dry day does not change that long-term pattern. Cedar Valley's average July daily high is 2°C warmer than Harbor Bay's 26°C.

Accept invented regions with a clearly identified one-day observation, a plausible 30-year July pattern, and a correct numerical comparison to the table. The explanation should distinguish a single day's weather from a long-term climate pattern.