River Basin Clues

Use location data and map clues to compare two regions.

6.P.2.3.B "Use multiple mapping techniques, data visuals, satellite images, and geographic technology to analyze spatial patterns of physical and human characteristics, making connections between regions."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline two clues about what different mapping tools can show. Circle the table values that help you compare the two regions.

Four Towns, One River

1. In this invented river basin, four towns sit beside one river. The river begins in the higher North Valley and flows toward the lower South Plain. The table gives each town's latitude and the share of land covered by pavement. A larger north latitude means a place is farther north. Compare the locations and land cover before drawing conclusions.

INVENTED RIVER BASIN DATA

Town	Region	Latitude	Paved land
Reed	South Plain	34° N	62%
Pine	North Valley	42° N	12%
Marsh	South Plain	36° N	46%
Oak	North Valley	40° N	18%

2. Notes from imagined satellite images describe fields and tree cover around Pine and Oak. They describe broad streets and clusters of rooftops around Marsh and Reed. Such images help identify land cover, but cannot show water's full route alone. An elevation map could show which slopes lead from higher ground toward the river.

3. For a second view, imagine a map that marks each town with a dot and shades each dot by its pavement percentage. The map would make nearby values easier to compare. Towns can also be linked by the same river even when their land cover differs. More pavement can cause faster runoff during storms because less rain soaks into soil.

2 ANSWER WITH EVIDENCE

Use the passage

1. List the four towns from north to south. Which table values did you use?

2. What pattern do you notice in paved land between the two regions? Use values from the table.

3. How do the satellite image notes support the paved-land pattern in the table?

4. Why would an elevation map add useful information to the satellite image notes when studying storm runoff between the regions?

3 YOUR TURN

Your own words

Choose one town where you would investigate adding a rain garden to slow storm runoff. In four sentences, use its location and paved-land data to explain your choice, then tell how a satellite view and an elevation map would each help you check the site.

ANSWER KEY

River Basin Clues

GRADE 6 · 6.P.2.3.B

PART 1 · READ AND MARK

Underline two clues about what different mapping tools can show. Circle the table values that help you compare the two regions. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	List the four towns from north to south. Which table values did you use?	**Pine, Oak, Marsh, Reed. Their latitudes decrease from 42° N to 34° N.**
2	What pattern do you notice in paved land between the two regions? Use values from the table.	**The South Plain towns have more paved land, at 46% and 62%, than the North Valley towns, at 12% and 18%.**
3	How do the satellite image notes support the paved-land pattern in the table?	**The notes describe streets and rooftops in the South Plain, where paved-land percentages are higher. They describe fields and trees in the North Valley, where the percentages are lower.**
4	Why would an elevation map add useful information to the satellite image notes when studying storm runoff between the regions?	**The notes show land cover, while an elevation map could show slopes toward the river. Together, they could help investigators study where runoff from paved areas might flow.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would study Reed in the South Plain because 62% of its land is paved. That pavement could send stormwater toward the river quickly. I would use a satellite view to look for open land near streets where a rain garden might fit. I would check an elevation map to see whether runoff from those streets could reach that spot.

Accept any town if the student uses its correct region and paved-land value. The proposed map checks should distinguish visible land cover from slope or elevation.