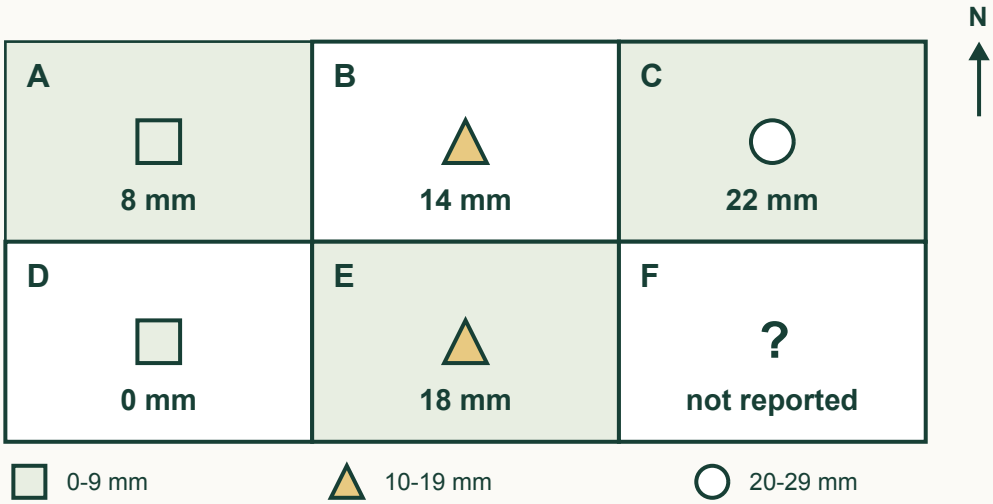
What does a rainfall map leave out?

Two 40-minute lessons | Geography and data | Work with a partner; explain your evidence.

All places and readings are invented. Six equal districts, each 10 km x 10 km (100 km2). One gauge at each centre. A number is a station reading, not a district average. North is up.

Fictional common window: 08:00 on 1 November to 08:00 on 2 November 2026 (24 hours). Rainfall depth is in mm. This is not a real map, observation or forecast.



Classroom bands include both endpoints; they are not official warning categories. D has a reported zero. F has no report. Use the words and shapes as well as any colour.

1. Read the key: Name the bands for A-E. Why are D and F different?

2. Compare: Find C minus B and E minus A. Give both answers in mm.

3. Rank carefully: Name the highest and lowest reported readings. Can you rank all six?

4. Repair two claims: Rewrite: "F had no rain." and "C is always the wettest district."

5. Test the gap: If F were 2 mm, who is highest? Separately, if F were 26 mm?

6. Optional mean: Mean of five reported readings: show working and name the group.

Next: Draw a bar chart (0-25 mm, steps of 5); keep F missing, not zero. Write a caption with one comparison, one limit and one follow-up question. You may respond orally or use a scribe.

Check the evidence, keep the limits

Keep this page until pupils have made and explained their first decisions.

1. Key and missing value

A and D: square (0-9 mm). B and E: triangle (10-19 mm). C: circle (20-29 mm). F: ?. D reported 0 mm; F did not report. Same band does not mean same value.

2-3. Compare and rank

C-B = 22-14 = 8 mm. E-A = 18-8 = 10 mm. Highest reported: C, 22 mm. Lowest reported: D, 0 mm. All-six highest is unknown: F could exceed 22 mm. Equal areas do not make one gauge a district average.

4. Repair claims

"F's reading was not reported for this 24-hour period." "C had the highest of the five reported station readings for this period." One day does not support "always", a climate claim or tomorrow's forecast.

5. Test alternatives

If F = 2 mm, C (22 mm) remains highest. If F = 26 mm, F is highest. These are separate hypotheses; neither is selected by the supplied information.

6. Optional mean

8 + 14 + 22 + 0 + 18 = 62; 62 / 5 = 12.4 mm. This describes five reported station readings only, not six stations or a district-area mean. Dividing by six inserts an unreported zero. The sum is not regional rainfall.

Chart check

A 8, B 14, C 22, D 0, E 18 mm; equal-width bars, labelled zero baseline and consistent 5 mm steps. F is marked "not reported", without a zero-height bar.

Example caption

"C's station recorded 8 mm more than B's during the fictional 24-hour period. F did not report, and one gauge cannot describe every point in a district. We would ask for F's checked report before ranking all six."

Original formative rubric: 0-8, not a board marking scheme

Score each criterion 0 (not yet), 1 (partial or prompted), 2 (clear and accurate): key/unit/window; comparison with mm; missing-zero and claim limits; caption with evidence, limit and question. Note the support used. Give one specific revision, not a language or neatness penalty.

Access and curriculum connection

Stay indoors. Offer large print, described/raised symbols and oral, familiar-language or scribed explanations. No personal locations or weather experiences required. Current reference: Delhi DoE Class VII 2026-27 Social Science, p1 (Understanding the Weather); Mathematics, pp3/5 (data interpretation; Connecting the Dots). Original task, not an official worksheet.

Sources: edustud.nic.in/edu/class7_2026_27.html | Full official source links and lesson: ncfhelp.com