

Flood Clue Detectives

Use maps and graphs to identify a local problem and plan a solution.

SS.5.G.4.2 "Use geography concepts and skills such as recognizing patterns, mapping, and graphing to find solutions for local, state, or national problems."

NAME _____

DATE _____

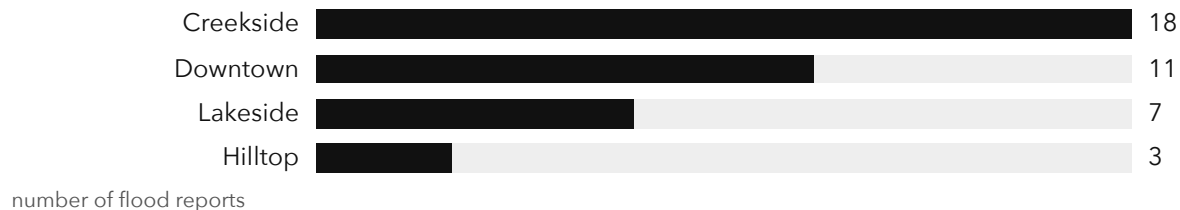
1 READ AND MARK _____ Read it twice

YOUR JOB Underline each geography tool or data source in the passage. Number 1, 2, and 3 beside the steps planners used to find a pattern and choose a solution.

Finding Flood Patterns

- ① After three heavy storms, the town of Pine Ridge received many reports of flooded streets. City planners placed each report on a street map. They noticed that most reports were near Oak Creek, especially where parking lots and roads covered the ground. Rain could not soak into those hard surfaces quickly, so water flowed toward low spots.
- ② Next, the planners graphed the number of flood reports from four neighborhoods. The graph showed a clear pattern. Creekside had the most reports, and Hilltop had the fewest. The planners compared the graph with their map. Creekside's reports clustered beside Oak Creek, while Hilltop sits farther uphill and has more grassy yards.

FLOOD REPORTS BY NEIGHBORHOOD



- ③ Using both tools, the planners chose a solution for Creekside. They proposed rain gardens along the creek and new drains at two low intersections. Rain gardens use plants and soil to slow and soak up rainwater. The city could first work where reports are highest, then check whether fewer floods are reported after later storms.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What tool did the planners use to locate the flooded-street reports?

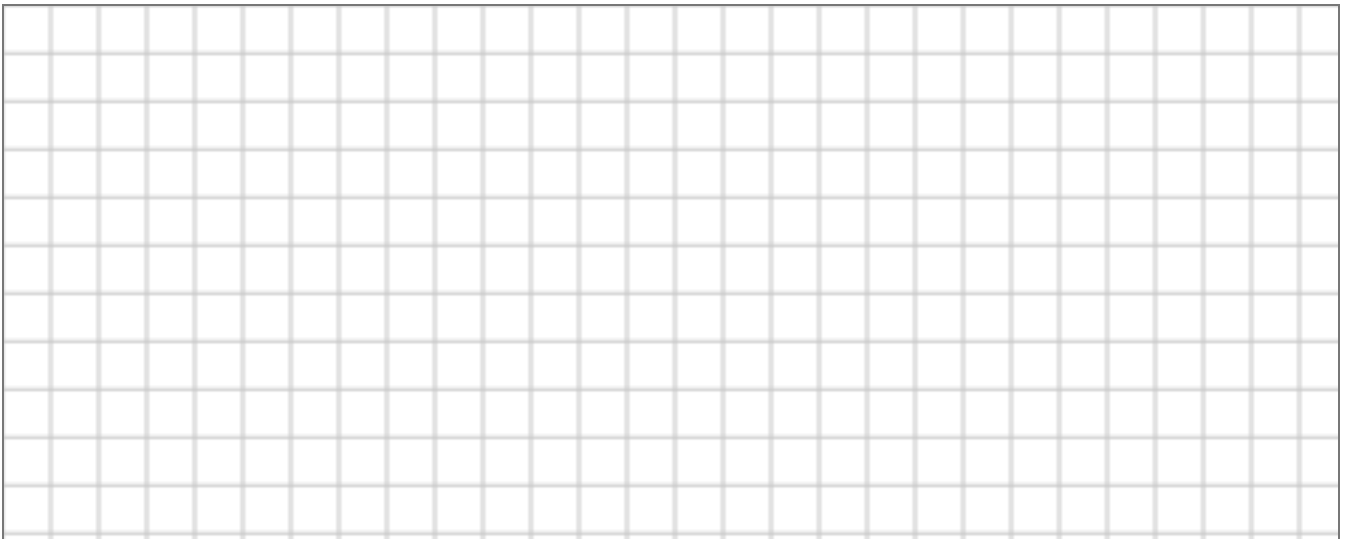
2 What pattern did planners notice when they put reports on the map?

3 How many more flood reports did Creekside have than Downtown?

4 How did using both the map and the graph help planners choose a solution for Creekside?

3 YOUR TURN _____ Your own words

On a neighborhood map, volunteers marked litter reports at four places: Market Street, 12; River Park, 8; Library, 5; and Cedar School, 3. Use the grid to make a bar graph. Then write two sentences below it: identify the place with the greatest need and propose a local solution.



PART 1 • READ AND MARK

Underline each geography tool or data source in the passage. Number 1, 2, and 3 beside the steps planners used to find a pattern and choose a solution. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What tool did the planners use to locate the flooded-street reports?	They used a street map.
2	What pattern did planners notice when they put reports on the map?	Most reports were near Oak Creek, especially near parking lots and roads with hard surfaces.
3	How many more flood reports did Creekside have than Downtown?	7 more reports.
4	How did using both the map and the graph help planners choose a solution for Creekside?	The graph showed that Creekside had the most reports, and the map showed that the reports clustered beside Oak Creek and low areas. This helped planners choose where to add rain gardens and drains.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Market Street has the greatest need because it has 12 litter reports. The town could place trash cans and schedule weekly cleanup crews on Market Street.

Accept accurate graphs with four labeled bars at 12, 8, 5, and 3. For the written response, accept Market Street as the greatest need and any reasonable local litter solution connected to that location.