

# Shade Across Riverton

Reading current tree-canopy data for a choropleth map

**SS.7.G.5.1** "Use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community."

NAME \_\_\_\_\_ DATE \_\_\_\_\_

## 1 READ AND MARK \_\_\_\_\_ Read it twice

**YOUR JOB** Underline the date and each tree-canopy percentage, then circle the three pattern descriptions that a choropleth key needs.

### Mapping Tree Canopy

- ① In a class case study dated May 15, 2026, Riverton's Parks Department measured tree-canopy cover in four planning areas. Tree canopy is the ground shaded by tree leaves when viewed from above. Canopy can cool streets, slow rainfall runoff, and provide habitat. Staff will turn these current percentages into a choropleth map, which uses shades or patterns to show values across areas.

**RIVERTON TREE-CANOPY DATA, MAY 15, 2026**

| Planning area | Tree-canopy cover |
|---------------|-------------------|
| Creekside     | 42%               |
| Downtown      | 12%               |
| North Hills   | 31%               |
| Southgate     | 19%               |

- ② For this map, staff chose three classes: 0 to 19 percent, 20 to 34 percent, and 35 to 50 percent. They will fill each planning area with a different gray pattern. Dark crosshatching represents the lowest class, medium dots the middle class, and light diagonal lines the highest class. A clear key lets readers decode the patterns.
- ③ The completed map will help residents locate uneven canopy. Downtown's low canopy could guide a tree-planting project, especially near hot sidewalks and bus stops. The map does not prove why canopy differs. Before acting, city staff could compare planting space, pavement, maintenance needs, and residents' ideas. They should update the data because canopy changes as trees grow or are removed.

**2 ANSWER WITH EVIDENCE** \_\_\_\_\_ Use the passage

**1** Using the data table and the map key information, which planning area would have light diagonal lines? State its percentage and class.

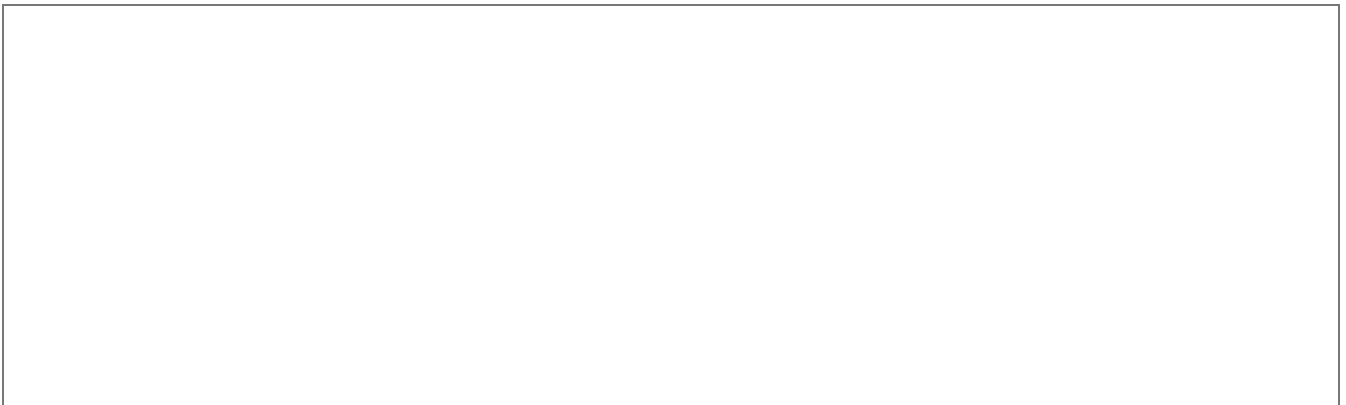
**2** Which two planning areas would have dark crosshatching? Explain what puts each area in that class.

**3** If a reader notices Downtown's dark pattern, what conservation action could the map help prioritize? Name the two nearby places mentioned in the passage.

**4** Why should city staff use other information before deciding why one planning area has less canopy than another?

**3 YOUR TURN** \_\_\_\_\_ Your own words

Draw a simple choropleth map of four areas in your school or local community using a current conservation or ecology measure, such as litter items counted today or tree canopy from a city source. Add a title, date, source, three-pattern key with number ranges, area labels, and one sentence naming an action the map could help prioritize.



**PART 1 • READ AND MARK**

Underline the date and each tree-canopy percentage, then circle the three pattern descriptions that a choropleth key needs. Accept any marking that follows this job and points at the right text.

**PART 2 • ANSWERS**

| # | QUESTION                                                                                                                                                  | ANSWER                                                                                                                                                        |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Using the data table and the map key information, which planning area would have light diagonal lines? State its percentage and class.                    | <b>Creekside, 42%, would have light diagonal lines because it is in the 35% to 50% class.</b>                                                                 |
| 2 | Which two planning areas would have dark crosshatching? Explain what puts each area in that class.                                                        | <b>Downtown, 12%, and Southgate, 19%. Both are in the lowest class, 0% to 19%.</b>                                                                            |
| 3 | If a reader notices Downtown's dark pattern, what conservation action could the map help prioritize? Name the two nearby places mentioned in the passage. | <b>The map could help prioritize tree planting near hot sidewalks and bus stops.</b>                                                                          |
| 4 | Why should city staff use other information before deciding why one planning area has less canopy than another?                                           | <b>The map shows canopy amounts, not causes. Staff should also compare factors such as planting space, pavement, maintenance needs, and residents' ideas.</b> |

**PART 3 • YOUR TURN (SAMPLE ANSWER)**

Hand-drawn map title: Lincoln Middle School Litter Counts, September 10, 2026. The map divides the campus into Courtyard, Bus Loop, East Field, and Parking Lot, with each area labeled. Source: same-day student count. Key: light diagonal lines, 0 to 4 litter items; dots, 5 to 9 items; crosshatching, 10 to 14 items. Courtyard has 3 items, Bus Loop has 12, East Field has 6, and Parking Lot has 10. The map could prioritize litter bins and a cleanup at the Bus Loop.

Accept equivalent pattern names if the student correctly matches each area to the stated number range. For the map task, accept any current local ecology or conservation measure if the map has labeled areas, a usable three-range key, a date, a source, and a reasonable action.