

Heat Plan Blueprint

Study how an explanatory model guides readers from a problem to a plan.

CCSS.ELA-Literacy.W.11-12.2a "Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables)..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline the sentence that previews the report, number the three headings in the order their ideas build, and circle each reference to a visual or multimedia feature that aids comprehension.

Planning Cooler City Blocks

- ① ## Why Pavement Holds Heat On a summer evening, a city block can remain hotter than a nearby park because asphalt, dark roofs, and concrete absorb solar energy during the day and release it slowly after sunset. This urban heat island effect matters most when nighttime temperatures stay high, since people and buildings have less time to cool down. The next sections explain how scientists locate the hottest blocks and how planners can reduce heat there. Figure 1, a side-by-side thermal map of a paved block and a tree-lined block, would help readers see the temperature pattern before considering solutions.
- ② ## Finding the Pattern To identify priority areas, researchers combine air-temperature readings with maps of land cover, tree canopy, and residents' exposure. Measurements taken at different times are important: a shaded sidewalk may be cooler at noon, while a dense neighborhood may hold more heat after dark. Table 1 could list each block's daytime surface temperature, nighttime air temperature, and percentage of tree cover. Placing these measures together prevents planners from choosing sites based on one number alone. This evidence narrows a citywide problem into specific locations where heat presents the greatest risk.
- ③ ## Cooling the Blocks Once high-risk blocks are identified, planners can match solutions to local conditions. Trees and shade structures reduce direct sunlight, while cool roofs reflect more sunlight than dark roofs. Some projects also replace portions of pavement with lighter or permeable surfaces, although designers must consider cost, maintenance, drainage, and access. A short video showing a resident walking the route before and after added shade could reveal conditions that a temperature table cannot. By moving from cause, to evidence, to targeted action, the report gives readers a clear path for understanding and evaluating a heat-reduction plan.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Which sentence previews what the next sections will explain? What two ideas does it place in order?

2 What information would Table 1 contain, and why is it useful to place those measures together?

3 How would Figure 1 and the short video aid readers at different points in the explanation?

4 Explain how the three headings create a unified sequence for the report.

3 YOUR TURN _____ Your own words

Choose a school or community issue. Write a 90 to 120 word mini-explanation in three labeled sections that introduces the issue, presents evidence needed to understand it, and proposes a response. Include a labeled reference to a table, figure, or short video and explain what it would help readers understand.

PART 1 • READ AND MARK

Underline the sentence that previews the report, number the three headings in the order their ideas build, and circle each reference to a visual or multimedia feature that aids comprehension. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Which sentence previews what the next sections will explain? What two ideas does it place in order?	"The next sections explain how scientists locate the hottest blocks and how planners can reduce heat there." It orders identifying hot locations before reducing heat.
2	What information would Table 1 contain, and why is it useful to place those measures together?	It would include daytime surface temperature, nighttime air temperature, and tree-cover percentage for each block. Together, the measures prevent decisions based on only one number.
3	How would Figure 1 and the short video aid readers at different points in the explanation?	Figure 1 would show the heat pattern between paved and tree-lined blocks before solutions are discussed. The video would show a resident's walking conditions before and after added shade, which a temperature table cannot show.
4	Explain how the three headings create a unified sequence for the report.	They move from the cause of urban heat, to evidence for locating high-risk blocks, to targeted solutions for those blocks.

PART 3 • YOUR TURN (SAMPLE ANSWER)

The Problem Our cafeteria throws away edible food when students take more than they will eat. Reducing this waste can save money and keep food scraps out of landfills. ## Measuring Waste For one week, staff can weigh unopened packaged foods and unfinished servings separately. Table 1 should show daily totals and the most commonly discarded items, so the school can see whether portions or choices cause more waste. ## Testing Solutions Next, the cafeteria could offer smaller first portions and a share table for unopened items, following local food-safety rules. After a month, a second table can compare waste totals with the first week.

Accept equivalent descriptions of the report's progression and of each feature's purpose. For Part 3, look for a clear introduction, a logical evidence-to-response sequence, meaningful labels, and a visual or multimedia reference that has a stated purpose.