

Roofs That Work

See how sections guide an informational text's purpose.

ELA.7.R.2.1 "Explain how individual text sections and/or features convey a purpose in texts."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each bold section heading. Beside each paragraph, write a 2- to 4-word note telling what job that section does for the reader.

Roofs That Work

- ① **Heat Above the Street** On a sunny day, a dark roof can become far hotter than the air. In crowded neighborhoods, many roofs absorb sunlight and release heat slowly after sunset. This can make nearby rooms less comfortable and increase the need for air conditioning. Cities are testing lighter roofs and planted roofs as ways to reduce this heat. The problem matters most during long summer afternoons in places where few trees shade sidewalks and buildings.
- ② **How a Living Roof Helps** A planted roof holds soil and hardy plants in layers above a waterproof surface. The plants shade the roof, while water in the soil and leaves evaporates. Evaporation uses heat energy, so the roof surface and the air near it may cool. The soil also slows rainwater runoff during storms. This section explains why a roof covered with plants can affect both temperature and water in a city at once.
- ③ **Planning Before Planting** Not every building can carry a planted roof. Engineers must check whether the structure can support the added weight, especially after heavy rain. Designers also choose plants that can survive wind, sun, and dry periods. A light-colored roof may be a better choice for a building that cannot hold soil. By comparing options, city leaders can select cooling projects that fit each building instead of using one solution everywhere across the whole city.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 How does the heading **Heat Above the Street** help convey the purpose of the first section?

2 Name two details from **How a Living Roof Helps** that support that section's purpose.

3 Why does the third section include details about heavy rain, wind, sun, and dry periods?

4 How does the order of the three sections help the text achieve its overall purpose?

3 YOUR TURN _____ Your own words

Write a new 3- or 4-sentence section that could follow this text about one additional roof-cooling option. Give your section a bold heading, and make the heading and details clearly explain a benefit or limitation of that option.

PART 1 • READ AND MARK

Underline each bold section heading. Beside each paragraph, write a 2- to 4-word note telling what job that section does for the reader. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How does the heading Heat Above the Street help convey the purpose of the first section?	It signals that the section will focus on heat at roof level and helps introduce the problem of hot roofs in crowded neighborhoods.
2	Name two details from How a Living Roof Helps that support that section's purpose.	Possible details: plants shade the roof; water evaporates from soil and leaves, which can cool the roof and nearby air; soil slows rainwater runoff.
3	Why does the third section include details about heavy rain, wind, sun, and dry periods?	The details show that planners must consider building strength and plant survival before choosing a planted roof.
4	How does the order of the three sections help the text achieve its overall purpose?	The text first introduces the problem of hot roofs, then explains how planted roofs can help, and finally explains why different buildings may need different solutions. This order informs readers about both benefits and limits.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Reflecting Sunlight A white roof coating reflects more sunlight than a dark roof. Because the roof absorbs less energy, its surface can stay cooler on sunny days. This option can help buildings that cannot support the weight of soil and plants.

Accept answers that accurately connect a heading, detail, or section order to its job in informing readers. For the Your Turn task, accept a relevant roof-cooling option with a heading and details that clearly serve the stated explanatory purpose.