Runoff Routes

Study how an explanation connects and separates related ideas.

9-10.WHST.2.a "Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aid comprehension."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the sentence that introduces the runoff problem, circle each heading, and label details about rain gardens with 1 and details about permeable pavement with 2 to show how the explanation organizes the two solutions.

Where Rain Goes at School

1 **Where the Water Goes** After a heavy rain, water can race across a school parking lot instead of soaking into soil. This runoff may carry oil, litter, and sediment toward storm drains. In many cities, those drains send water directly to nearby streams, not to a treatment plant. The issue is not simply how much rain falls. The surface it lands on and the path it takes also matter. A school deciding how to reduce runoff needs to consider both where water can enter the ground and where it can be safely held.

2 **Two Ways to Slow Runoff** A rain garden is a planted depression that collects water flowing from roofs or pavement. Its soil lets some water soak in, while plants help hold the soil in place. Permeable pavement tackles a different part of the route: water passes through gaps or pores in the paved surface into layers of stone below. Both approaches slow water before it reaches a drain, but they fit different spaces. A rain garden needs an area set aside for plants; permeable pavement can replace a walkway or part of a parking area.

3 **Choosing a Site** Neither solution works well without attention to local conditions. A rain garden needs an overflow route for storms that fill it, and its plants require care. Permeable pavement can clog if sediment builds up, so it needs cleaning. Before choosing a location, a school could watch where water pools and check whether underground pipes limit digging. A simple site sketch showing slopes, drains, and possible locations would help people compare the options. The sketch would not replace soil testing, which can show whether water will soak in quickly enough.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does the opening paragraph frame the runoff problem as more than a question of how much rain falls?

2. How do the second and third headings help organize the explanation?

3. What goal do rain gardens and permeable pavement share, and what is one important difference between them?

4. Why would the proposed site sketch help readers compare the options, and why would it not be enough on its own?

3 YOUR TURN

Your own words

Write one paragraph of 85 to 110 words about two different ways a school could reduce lunch food waste. Add a brief heading, introduce the topic, explain how the approaches differ and what goal they share, then propose one useful graphic and say what it would show.

Runoff Routes

PART 1 · READ AND MARK

Underline the sentence that introduces the runoff problem, circle each heading, and label details about rain gardens with 1 and details about permeable pavement with 2 to show how the explanation organizes the two solutions. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does the opening paragraph frame the runoff problem as more than a question of how much rain falls?	**It explains that the surface rain lands on and the path the water takes also affect runoff.**
2	How do the second and third headings help organize the explanation?	**The second heading signals a comparison of two solutions. The third shifts to conditions a school must consider before choosing a site.**
3	What goal do rain gardens and permeable pavement share, and what is one important difference between them?	**Both slow water before it reaches a drain. A rain garden collects water in a planted area, while permeable pavement lets water pass through a paved surface.**
4	Why would the proposed site sketch help readers compare the options, and why would it not be enough on its own?	**It could show slopes, drains, and possible locations together. Soil testing would still be needed to determine whether water can soak in quickly enough.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Less Food in the Bin A school can reduce lunch waste by changing how food is served and what happens to safe leftovers. First, students could choose smaller initial portions and ask for more if they are still hungry. This approach tries to prevent extra food from reaching a tray. A share table, if school rules allow it, gives unopened items a chance to be taken by someone else. That approach finds a use for food already served. Both methods aim to keep edible food out of the trash. A labeled bar chart showing discarded items before and after each change would make their effects easier to compare.

Accept other accurate comparisons and explanations of the passage's organization. For Part 3, look for a clear introduction, a meaningful distinction and connection, and a graphic that would clarify the student's ideas.