Three Ways to Explain

Read how three fields organize information about stormwater.

8.VL.29 "Read, analyze, and evaluate texts from science, social studies, and other academic disciplines to determine how those disciplines treat domain-specific vocabulary and content organization."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Circle one field-specific term in each paragraph and underline the nearby words that explain it. Beside each paragraph, write its main pattern: cause and effect, time order, or problem and solution.

Where Does the Rain Go?

1. After a heavy rain, water races across a school parking lot but sinks into a grassy field. Asphalt is impervious, which means water cannot pass through it easily. That difference changes where the rain goes. Water flowing over pavement becomes runoff, and it can carry oil and litter into storm drains. In soil, spaces between particles let water move downward. As water passes through soil, particles and roots can trap some pollutants. Scientists describe these linked effects to explain how the surface under your feet changes the path of rain.

2. Public responses to polluted runoff have a history. In 1972, the United States passed major amendments to the Clean Water Act. In 1987, Congress added rules calling for permits to control stormwater pollution. In 1990, federal stormwater permit rules began covering large cities and certain construction sites. In 1999, another set of rules extended coverage to smaller municipalities, or local governments, and smaller construction sites. A historian lines up these dates to show how the list of regulated places grew over time, rather than explaining how water travels through soil.

3. A city planner faces a different task: keeping a schoolyard rain garden working. One problem is a clogged inlet, an opening where runoff enters the garden. Leaves can pile up there and send water across a sidewalk instead. The planner recommends checking the inlet after storms and clearing away leaves. The plan also calls for an overflow path so extra water can leave safely during a downpour. This problem-and-solution plan tells a maintenance crew what to inspect and do.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does the science paragraph use the meaning of *impervious* to explain what happens to rain on asphalt?

2. How do the 1990 and 1999 details work together in the history paragraph's time order?

3. Compare how the history paragraph explains *municipalities* and the planner paragraph explains *inlet*. What does each term help its reader understand?

4. A maintenance crew needs to know what to do when an inlet clogs. Why is the planner's paragraph more useful for that task than the science or history paragraph?

3 YOUR TURN

Your own words

Choose a school issue other than rainwater. Write four or five sentences as a planner: explain one topic-specific term, describe the problem, propose a workable solution, and tell why the solution would help.

Three Ways to Explain

PART 1 · READ AND MARK

Circle one field-specific term in each paragraph and underline the nearby words that explain it. Beside each paragraph, write its main pattern: cause and effect, time order, or problem and solution. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does the science paragraph use the meaning of *impervious* to explain what happens to rain on asphalt?	**Because water cannot easily pass through impervious asphalt, it flows over the pavement as runoff.**
2	How do the 1990 and 1999 details work together in the history paragraph's time order?	**The 1990 rules covered large cities and certain construction sites. The 1999 rules extended coverage to smaller municipalities and smaller construction sites.**
3	Compare how the history paragraph explains *municipalities* and the planner paragraph explains *inlet*. What does each term help its reader understand?	**The history paragraph defines municipalities as local governments, helping readers understand who came under the later rules. The planner paragraph defines an inlet as an opening where runoff enters, helping a crew know what to inspect.**
4	A maintenance crew needs to know what to do when an inlet clogs. Why is the planner's paragraph more useful for that task than the science or history paragraph?	**Its problem-and-solution pattern identifies the clogged inlet and recommends checking it after storms and clearing away leaves.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The corner outside the library is a bottleneck, a narrow spot where crowds slow down. At class changes, lines from two doors meet there. Put floor arrows along the wider side of the hall to guide students past the corner. Staff can check whether students follow the arrows. This route could keep the library doorway clear and make the corner easier to cross.

For the marking job, accept a field-specific term with an accurate nearby clue and the patterns cause and effect, time order, and problem and solution, in that order. For Your Turn, accept a different school issue if the term is explained and the proposed solution addresses the stated problem.