

Rain on Pavement

Use two supplied sources to explain two ways to manage stormwater.

8.W.1.B "Write expository texts to examine a topic or concept that conveys ideas and information by maintaining a clear focus with relevant, well-chosen facts, definitions, concrete details, quotations, and examples from multiple credible sources..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Circle the two source names. Underline each approach and its definition. Mark one shared purpose and one difference you could use in a comparison.

Two Sources, One Problem

- ① Imagine that a school newsletter needs an explanation of ways to manage rainwater from paved areas. Runoff is water that flows over a surface. Compare rain gardens and permeable pavement using the two source summaries below. These summaries provide all the research for this task; use your own wording when you write.
- ② Source A: U.S. Environmental Protection Agency (EPA), "Types of Green Infrastructure." A rain garden is a shallow planted depression that collects runoff and filters it through materials such as soil, sand or gravel. Permeable pavement lets water enter through its surface and reach storage layers below. The stored water can then soak into the ground or leave through an underdrain. Both approaches manage rain near where it falls, but one uses a planted area while the other uses a pavement system.
- ③ Source B: U.S. Geological Survey (USGS), "Evaluating the potential benefits of permeable pavement on the quantity and quality of stormwater runoff." Porous pavers, concrete or asphalt can cover a stone reservoir that stores rainwater and runoff. Parking lots, sidewalks and driveways are common uses. Sediment can clog the pavement and reduce the amount of water entering it, so upkeep matters. A pavement design therefore needs a maintenance plan, not just an installation plan.

2 ANSWER WITH EVIDENCE Use the passage

1 What common purpose connects the two approaches? Give one detail from Source A that supports it.

2 Give one useful comparison between a rain garden and permeable pavement. Use Source A.

3 What does Source B add to Source A? Explain how that detail would improve an explanation of pavement.

4 Why would "Permeable pavement prevents all flooding" be an unsupported conclusion from these sources?

3 YOUR TURN Your own words

Write a short expository text for the school newsletter comparing rain gardens and permeable pavement. Keep a clear focus. Define a key term, use concrete details from BOTH supplied sources and name each agency. Explain a similarity and a difference with comparison language. Use the planning, writing and revision spaces below.

Plan the comparison

Name your focus, a similarity and a difference. Note a useful fact from EPA and one from USGS.

Write your explanation

Develop your comparison in your own words. One or more short paragraphs are welcome; use the supplied source summaries.

Revise for clarity

Reread your source use and comparison. Rewrite one sentence to clarify a relationship or make a claim more accurate.

PART 1 • READ AND MARK

Circle the two source names. Underline each approach and its definition. Mark one shared purpose and one difference you could use in a comparison. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What common purpose connects the two approaches? Give one detail from Source A that supports it.	Both manage rainwater near where it falls. A rain garden collects and filters runoff; permeable pavement admits water through its surface into storage below. Either detail supports the shared purpose.
2	Give one useful comparison between a rain garden and permeable pavement. Use Source A.	A rain garden uses a planted depression and filtering materials; permeable pavement uses a surface and layers that admit and store water. Both manage rain, but their structures differ.
3	What does Source B add to Source A? Explain how that detail would improve an explanation of pavement.	USGS adds common locations and the risk of sediment clogging. The maintenance detail shows why installing pavement alone is not enough to keep it working as intended.
4	Why would "Permeable pavement prevents all flooding" be an unsupported conclusion from these sources?	Neither summary promises complete flood prevention. Source B explains that clogging can reduce water entry; the sources describe ways to manage runoff, not a guarantee that every storm can be handled.

PART 3 · YOUR TURN (SAMPLE ANSWER)

Plan. Focus: two structures for managing runoff. Similarity: collect or store rainwater. Difference: planted depression versus porous pavement. EPA supplies the definitions; USGS adds uses and upkeep.

Explanation. Rain gardens and permeable pavement both manage runoff, water flowing over a surface. According to EPA, a rain garden collects water in a planted depression and filters it through soil, sand or gravel. In contrast, permeable pavement lets water pass through its surface into storage below. USGS identifies sidewalks and parking lots as common pavement uses and warns that sediment can clog the surface. Thus, both approaches can help manage rainwater, but they use different structures. Pavement planning also needs to account for upkeep so water can continue entering the system. **Revision.** Instead of "Pavement fixes flooding," write "Permeable pavement can help manage runoff, but its performance depends in part on keeping its surface from clogging."

TEACHER ASSESSMENT NOTES

The two supplied summaries are paraphrases of official agency pages, not direct quotations. Accept equivalent, source-supported comparisons. Check a clear focus, a definition, concrete details from both agencies and language that explains relationships. Do not require outside research or a word count. The model uses both sources and compares two actual responses. Sources: <https://www.epa.gov/green-infrastructure/types-green-infrastructure> and <https://www.usgs.gov/centers/upper-midwest-water-science-center/science/evaluating-potential-benefits-permeable-pavement>.