Water at Work

Trace evidence of water changing and moving through Earth systems.

S6E3 "Obtain, evaluate, and communicate information to recognize the significant role of water in Earth processes."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline one detail in each paragraph that shows water changing land or moving into, across, or below Earth's surface. Circle the words that explain what water does in each underlined detail.

After the Rain

1. After a hard rain, water does not stay where it lands. Some water flows downhill as runoff, gathering in gutters, streams, and rivers. Moving water can pick up loose soil and small rock pieces. As the flow slows, it drops that sediment in a new place. Over many storms, this erosion and deposition can reshape a stream bank, build a sandbar, or carry muddy water into a lake. People may see these changes after a single powerful storm.

2. Other rainwater soaks into spaces in soil and rock. This process, called infiltration, can refill groundwater stored below the surface. Groundwater may slowly move into springs and streams, helping some streams keep flowing between rainstorms. Pavement changes this path because water cannot easily soak through it. More water then runs across the ground, which can increase flooding and reduce the amount that enters underground storage. Choices about land surfaces therefore affect the local water cycle.

3. Water also changes rock through weathering. Water can enter tiny cracks, and in places with freezing temperatures, it expands when it freezes. The expanding ice pushes on the crack and can break the rock apart. Water can also dissolve some minerals, carrying them away in solution. Scientists evaluate observations such as muddy runoff, lower stream flow after paving, or cracked rock to explain how water is changing land. One observation alone may not show the whole process, so repeated evidence is useful.

2 ANSWER WITH EVIDENCE

Use the passage

1. What sequence in paragraph 1 explains how sediment can be moved to a new place?

2. Use paragraph 2 to explain why paving can increase flooding and reduce groundwater storage.

3. Which observation in paragraph 3 supports a claim that water is moving soil? Explain why.

4. Why are repeated observations more useful than one observation when scientists explain a water process?

3 YOUR TURN

Your own words

Write 3 or 4 sentences that make a claim about how heavy rain could change an unpaved schoolyard. Name one water process, describe evidence an observer could collect, and explain how the evidence supports your claim.

Water at Work

PART 1 · READ AND MARK

Underline one detail in each paragraph that shows water changing land or moving into, across, or below Earth's surface. Circle the words that explain what water does in each underlined detail. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What sequence in paragraph 1 explains how sediment can be moved to a new place?	**Flowing water picks up loose soil and rock pieces, then drops the sediment when the flow slows.**
2	Use paragraph 2 to explain why paving can increase flooding and reduce groundwater storage.	**Water cannot easily soak through pavement. More water runs across the ground, which can increase flooding, while less water infiltrates to refill groundwater.**
3	Which observation in paragraph 3 supports a claim that water is moving soil? Explain why.	**Muddy runoff supports the claim because the mud shows that moving water is carrying soil or sediment.**
4	Why are repeated observations more useful than one observation when scientists explain a water process?	**One observation may not show the whole process. Repeated observations provide stronger evidence of what is happening.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

After heavy rain, runoff could cut small channels across an unpaved schoolyard and carry soil downhill. An observer could photograph new channels and collect water that looks muddy near the low area. These observations would support the claim because moving water can pick up loose soil and deposit it where the flow slows.

Accept scientifically accurate claims about runoff, erosion, deposition, infiltration, groundwater, or weathering. The response should include a claim, observable evidence, and a clear link between the evidence and the water process.