Garden Water Route

Trace how connected parts water a school garden.

3.5.D "examine and model the parts of a system and their interdependence in the function of the system;"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each part of the watering system. Number the five parts 1 through 5 in the order water moves through them, so you can see how the parts work together.

A System for Thirsty Tomatoes

1. A school garden uses a drip-watering system to bring water to tomato plants. The system has a rain barrel, a spigot, a hose, small tubes, and tiny drippers beside each plant. Water stored in the barrel leaves through the spigot. The hose carries it to the tubes. Each dripper lets out a slow amount of water near a plant's roots.

2. The parts depend on one another. If the barrel is empty, no water can enter the hose. If the spigot stays closed, water cannot leave the barrel. A kink in the hose can stop water before it reaches the tubes. When tubes are blocked, the drippers farther along may not get water. The plants then receive less water.

3. Garden helpers check the system each morning. They fill the barrel, open the spigot, and look for leaks or bent hoses. They also make sure soil does not plug the drippers. When every part works, the system gives each tomato plant a small drink. Fixing one problem helps the other parts do their jobs and keeps the garden watered.

2 ANSWER WITH EVIDENCE

Use the passage

1. List the five watering-system parts in the order water moves through them.

2. What happens when the hose has a kink? Explain which parts do not get water next.

3. What may happen to the tomato plants if the tubes are blocked? Use the system parts in your answer.

4. Name two jobs the garden helpers do. Explain how those jobs help the system work.

3 YOUR TURN

Your own words

Draw a three-panel model of a hand-washing water system. Label at least four parts, use arrows to show the water's path, and write a short caption in each panel telling what happens if one part is missing or blocked.

ANSWER KEY

Garden Water Route

GRADE 3 · TEKS 3.5.D

PART 1 · READ AND MARK

Underline each part of the watering system. Number the five parts 1 through 5 in the order water moves through them, so you can see how the parts work together. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	List the five watering-system parts in the order water moves through them.	**Rain barrel, spigot, hose, tubes, drippers.**
2	What happens when the hose has a kink? Explain which parts do not get water next.	**The kink can stop water before it reaches the tubes. The tubes and drippers may not get water.**
3	What may happen to the tomato plants if the tubes are blocked? Use the system parts in your answer.	**Drippers farther along may not get water, so the plants receive less water.**
4	Name two jobs the garden helpers do. Explain how those jobs help the system work.	**Answers may name any two: fill the barrel, open the spigot, check for leaks or bent hoses, and keep soil from plugging drippers. These jobs help water keep moving through the system.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Panel 1: Faucet → sink. The faucet must turn on or water cannot start moving. Panel 2: Sink → drainpipe. A blocked drainpipe keeps water from leaving the sink. Panel 3: Drainpipe → sewer pipe. If the sewer pipe is blocked, used water cannot travel away.

Accept equivalent wording for system parts and effects if the student's order and cause-and-effect relationship are correct. For the model, accept another sensible system if it includes at least four connected parts, arrows, and accurate dependency captions.