

Creek Choices

Trace how people can harm or help a local waterway.

SS.6.G.5 "Understand how human actions can impact the environment."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each human action in the passage. Circle the environmental effect linked to it, then write matching numbers beside each action and effect pair.

Willow Creek Under Pressure

- ① At Brookdale Middle School, students noticed that rainwater rushed from the parking lot into Willow Creek. Years earlier, rain soaked into a grassy field where the lot now stands. Pavement does not absorb much water, so storms send faster runoff into the creek. The moving water carries soil from bare banks. It can also carry oil drips and litter from cars. Muddy water blocks sunlight that underwater plants need, and some animals lose places to find food.
- ② People in the creek's watershed also affect the water in less visible ways. Some homeowners spread more lawn fertilizer than grass can use. Rain can wash the extra fertilizer into Willow Creek. The added nutrients may cause algae to grow quickly. When large amounts of algae die, decomposers use oxygen as they break it down. Fish and insects need dissolved oxygen in the water, so low oxygen can harm or kill them. This chain of effects can begin far from the creek itself.
- ③ After studying the problem, the school replaced part of a paved edge with a rain garden. The garden has native plants and loose soil that slow runoff and help water soak into the ground. Students also placed trash bins near the lot and asked families to use fertilizer carefully. These choices can reduce pollution entering the creek. However, the garden needs care. If people remove its plants or dump waste there, it will not protect the creek as well. Human choices can damage or improve the same environment.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 How did building the parking lot change what happened to rainwater during storms?

2 Explain how using too much lawn fertilizer can harm fish and insects in Willow Creek.

3 How can the rain garden reduce pollution entering the creek?

4 Name one human action in the passage that can damage Willow Creek and one that can improve it.

3 YOUR TURN _____ Your own words

Think of a place near your home, school, or community. Write three sentences that name one human action, explain one environmental effect it could cause, and describe one change that could reduce the harm.

PART 1 • READ AND MARK

Underline each human action in the passage. Circle the environmental effect linked to it, then write matching numbers beside each action and effect pair. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How did building the parking lot change what happened to rainwater during storms?	Pavement did not absorb much water, so rainwater rushed more quickly as runoff into Willow Creek.
2	Explain how using too much lawn fertilizer can harm fish and insects in Willow Creek.	Extra fertilizer can cause algae to grow quickly. When algae die, decomposers use oxygen, leaving too little dissolved oxygen for fish and insects.
3	How can the rain garden reduce pollution entering the creek?	Its native plants and loose soil slow runoff and help water soak into the ground, so less polluted water enters the creek.
4	Name one human action in the passage that can damage Willow Creek and one that can improve it.	Answers may include using too much fertilizer, paving land, removing rain-garden plants, or dumping waste as damaging actions. Improving actions include building or caring for a rain garden, placing trash bins, and using fertilizer carefully.

PART 3 • YOUR TURN (SAMPLE ANSWER)

At a neighborhood playground, people leave plastic bottles beside a storm drain. Rain can carry the bottles into a pond, where they can harm animals or block water flow. Adding covered bins and picking up litter would keep less waste out of the pond.

Accept equivalent cause-and-effect explanations that use details from the passage. For Part 3, accept reasonable local or imagined examples when the action, environmental effect, and harm-reducing change are clearly connected.