Pond Count Clues

Use counts to study how a solution may help living things.

3.12 "Obtain and communicate information regarding the impact of existing solutions on plant and animal populations when environmental changes occur."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the change at the pond and the solution people used. Circle the names of the living things students counted so you can compare what happened to them.

Saved Rain for a Dry Pond

1 A hot, dry month made the school pond smaller. Its muddy edge began to crack. Marsh grass seedlings near the edge needed wet soil, and frogs needed water and damp hiding places. The school used a rain barrel, a container that saves rain from the roof. Workers poured the saved water into the pond each week.

2 The class wanted to know whether this solution helped the living things there. Before workers added water, students counted marsh grass seedlings, frogs, and dragonflies beside the pond. They counted again four weeks later, using the same area and time of day. The table shows the number of each living thing they saw.

LIVING THINGS SEEN AT THE POND

Living thing	Before water was added	Four weeks later
Marsh grass seedlings	6	10
Frogs	2	5
Dragonflies	4	8

3 The pond's edge stayed wetter after the saved water was added. The counts show what changed in this place, not what happened at every pond. Some frogs or dragonflies may have moved in from elsewhere. Rain or other changes could have helped, too. Comparing the counts gives clues about the rain barrel's impact.

2 ANSWER WITH EVIDENCE

Use the passage

1. How did the saved rainwater address the dry-month change, and how might this help marsh grass seedlings?

2. Use the table to explain how the marsh grass seedling count changed after water was added.

3. Which animal count increased more, frogs or dragonflies? Use both changes in your answer.

4. Does the table prove that added water alone caused the higher frog count? Explain using the passage.

3 YOUR TURN

Your own words

Heavy rain washes soil away from a school garden. In three sentences, choose a way people can protect the soil, tell how it might affect one plant and one animal population, and explain what you would count before and after to check.

ANSWER KEY

Pond Count Clues

GRADE 3 · 3.12

PART 1 · READ AND MARK

Underline the change at the pond and the solution people used. Circle the names of the living things students counted so you can compare what happened to them. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How did the saved rainwater address the dry-month change, and how might this help marsh grass seedlings?	**The water kept the pond's edge wetter. Marsh grass seedlings need wet soil.**
2	Use the table to explain how the marsh grass seedling count changed after water was added.	**The count rose from 6 to 10 seedlings, an increase of 4.**
3	Which animal count increased more, frogs or dragonflies? Use both changes in your answer.	**Dragonflies increased by 4, from 4 to 8. Frogs increased by 3, from 2 to 5.**
4	Does the table prove that added water alone caused the higher frog count? Explain using the passage.	**No. Some frogs may have moved in, and rain or other changes could have helped.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would add mulch to help keep soil in the garden during heavy rain. More wildflower plants might grow in the soil, and more bees might come to their flowers. I would count wildflower plants and bees in the same garden before adding mulch and four weeks later.

Accept other soil-protection solutions with a reasonable possible effect on one plant and one animal population. The check should compare counts from the same place before and after the solution.