

Tank Teamwork

Trace how aquarium parts depend on one another.

5.5.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 the names of parts in the aquarium system. Circle three details that show one part affecting another part, so you can track how the system works.

A Classroom Aquarium System

- ① An aquarium is a system, a group of parts that work together. In Ms. Chen's class tank, fish eat food and release waste into the water. A filter pulls in the water and traps bits of waste. Helpful bacteria living in the filter change some harmful waste into safer substances. The filter then returns cleaner water to the tank.
- ② Green water plants are another part of the tank system. When light shines on their leaves, the plants use it to make food. During this process, they release oxygen into the water. Fish use dissolved oxygen to breathe. The plants also provide hiding places, which can help fish feel safe when people move near the tank.
- ③ Each part depends on other parts. If the filter stops, waste can build up, and the bacteria cannot clean as much water. If a plant receives too little light, it may make less food and release less oxygen. With dirtier water or less oxygen, fish may become sick. Careful feeding, light, and filter cleaning help keep the whole system working.

2

ANSWER WITH EVIDENCE

Use the passage

1

How do the filter and the bacteria work together to improve the water?

2

What does light have to do with fish breathing in the tank?

3

Trace what may happen after the filter stops, using at least two linked effects.

4

Use two details from the passage to explain why the tank is a system, not just a group of separate things.

3

YOUR TURN

Your own words

Choose a system you use at school, such as a handwashing station or a pencil-sharpener area. Fill the table with four parts, each part's job, and something it depends on to help the system work.

PART	JOB IN THE SYSTEM	DEPENDS ON

PART 1 • READ AND MARK

Underline the names of parts in the aquarium system. Circle three details that show one part affecting another part, so you can track how the system works. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How do the filter and the bacteria work together to improve the water?	The filter traps bits of waste, and bacteria in the filter change some harmful waste into safer substances.
2	What does light have to do with fish breathing in the tank?	Light helps plants make food and release oxygen. Fish use the dissolved oxygen to breathe.
3	Trace what may happen after the filter stops, using at least two linked effects.	Waste can build up, and bacteria cannot clean as much water. The water may become dirtier, and fish may become sick.
4	Use two details from the passage to explain why the tank is a system, not just a group of separate things.	Answers should explain two connected relationships, such as the filter and bacteria cleaning water, or light helping plants release oxygen that fish need to breathe.

PART 3 • YOUR TURN (SAMPLE ANSWER)

PART	JOB IN THE SYSTEM	DEPENDS ON
Faucet	Sends water for washing hands	Water pipes
Soap dispenser	Provides soap for cleaning hands	A soap refill
Drain	Carries used water away	A clear drainpipe
Paper towel dispenser	Provides towels for drying hands	A supply of paper towels

Accept accurate paraphrases of the passage that show linked effects among aquarium parts. For the open task, accept any reasonable school system if each listed part has a clear job and a logical dependency.