

Parts With Purpose

Trace how structures help objects, organisms, and systems do their jobs.

4.5.F “explain the relationship between the structure and function of objects, organisms, and systems; and”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each structure named in the passage. Circle the words that tell what it does, then draw a small arrow from each structure to its function.

How Parts Do Their Jobs

- ① On a bicycle, each part has a job. The tires are wide rings of rubber that grip the road and cushion bumps. A chain loops around toothed gears. When a rider pushes a pedal, the chain pulls the gears, turning the back wheel. Hand brakes squeeze pads against the wheel rim. The pads slow the wheel because friction resists motion.
- ② A sunflower also has structures suited to its needs. Its roots branch through soil, taking in water and minerals and holding the plant steady. Broad, flat leaves catch sunlight. Inside the leaves, green parts use light, water, and carbon dioxide to make sugar for the plant. The flower head later holds many seeds, helping new sunflowers grow.
- ③ Systems work when their parts work together. In the digestive system, teeth break food into smaller pieces, and the stomach churns it with juices. The small intestine is long and folded, so nutrients can move into the blood through a large surface. Blood vessels then carry nutrients to body cells. If one part cannot do its job, the whole system may not work well.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 How does the chain's structure help it turn the bicycle's back wheel?

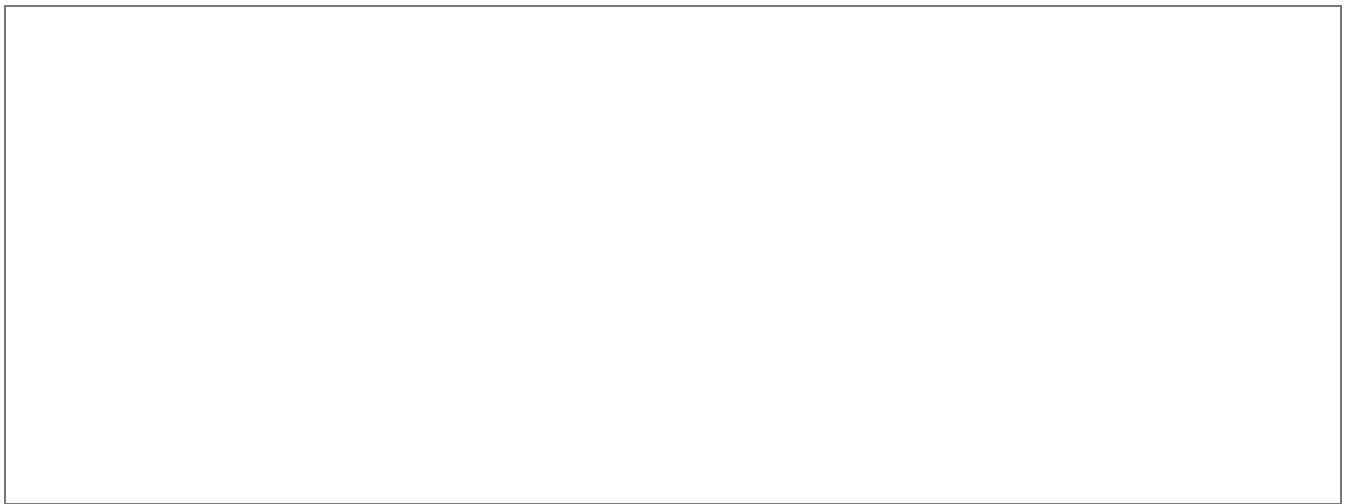
2 How do the sunflower's branching roots help the plant? Give two functions.

3 Why is the small intestine long and folded?

4 How do blood vessels help the digestive system work as a system?

3 YOUR TURN _____ Your own words

Choose an object, organism, or system that is not named in the passage. Draw it, label two structures, and write two sentences explaining how each structure helps it do its job.



PART 1 • READ AND MARK

Underline each structure named in the passage. Circle the words that tell what it does, then draw a small arrow from each structure to its function. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How does the chain's structure help it turn the bicycle's back wheel?	The chain loops around toothed gears and pulls the gears when the rider pushes a pedal, turning the back wheel.
2	How do the sunflower's branching roots help the plant? Give two functions.	The roots take in water and minerals, and they hold the plant steady.
3	Why is the small intestine long and folded?	Its long, folded structure provides a large surface so nutrients can move into the blood.
4	How do blood vessels help the digestive system work as a system?	Blood vessels carry nutrients from the digestive system to body cells.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Labels: webbed feet; feathers A duck's webbed feet push against water, helping it swim. Its feathers trap air and help keep its body warm.

Accept accurate structure-to-function explanations for any reasonable object, organism, or system not used in the passage. The drawing should include two labeled structures, and each written sentence should correctly connect a structure to what it helps do.