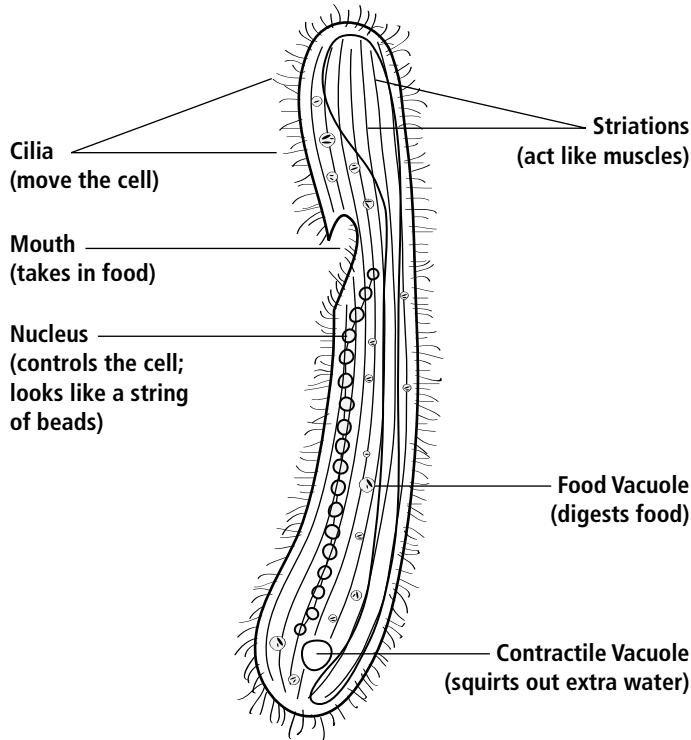


Spirostomum



Spirostomum is a one-celled protozoan with a central digestive tube. Look for a long cylinder-shaped cell. When you see a spirostomum, look for the structures shown in the diagram.



Movement A spirostomum's body has spiral rows of cilia. The cilia beat back and forth to move the organism with a snake-like wiggling motion.

Feeding Beating cilia sweep small organisms into the spirostomum's mouth.

Reproduction The organism divides in half. The nucleus splits, too.

Size 1 to 3 mm (the largest and most complex one-celled protist)

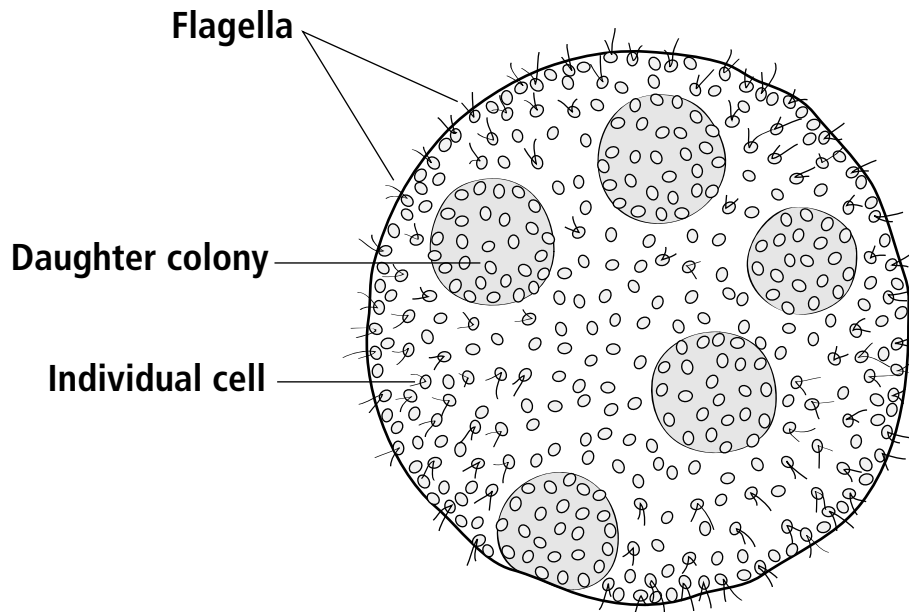
Answer the following question.

Can a spirostomum make its own food? Explain

Volvox



Volvox are one-celled algae that live together in a colony. The colony is a hollow ball with 500 to 20,000 individual cells. Look for rolling green balls on the slide. When you see a volvox colony, look for the structures shown in the diagram.



Movement Each volvox cell has two flagella. The flagella beat together to roll the ball through the water.

Feeding Volvox cells have chlorophyll and make their own food by photosynthesis.

Reproduction Daughter colonies are small, dark green balls inside the volvox colony. When the daughter colonies mature, the parent ball bursts open and releases the daughter colonies.

Size 350 to 500 μm (Two or three volvox cells would fit in 1 mm.)

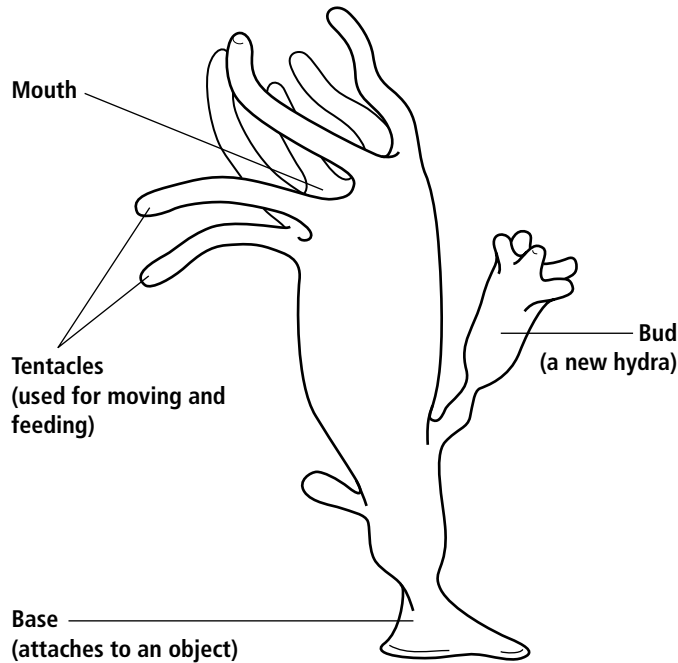
Answer the following question.

Volvox cells have eyespots that sense light. How do the eyespots help volvox survive?

Hydra



A hydra is a many-celled animal. The cells are in two layers. The inside of the animal is hollow. Look for white stringy objects attached to the sides and bottom of the jar. When you see a hydra on the slide, look for the structures shown in the diagram.



Movement A hydra can stay in one place, glide on its base, or somersault using its tentacles.

Feeding A hydra stuns small organisms by shooting out stinging cells on its tentacles. Then the tentacles grab the food and stuff it into the mouth.

Reproduction A hydra grows a bud of cells on the outside of its body. When the bud develops into a small hydra with tentacles, it falls off and swims away.

Size 10 mm

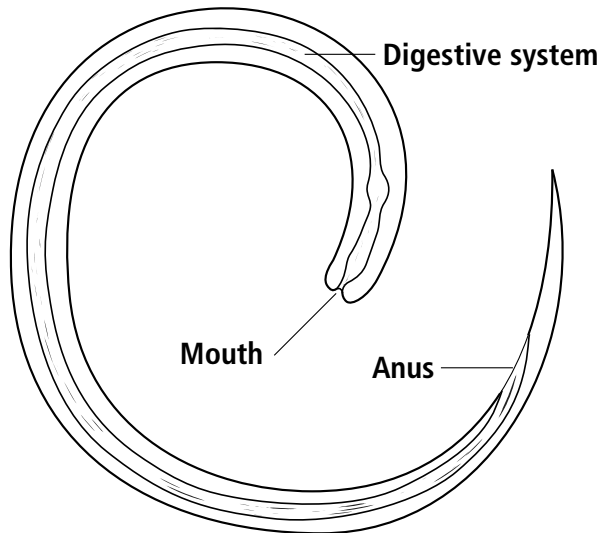
Answer the following question.

Where do you think a hydra digests its food?

Vinegar Eels



A vinegar eel is a many-celled animal. Vinegar eels are also called nematodes or roundworms. They are easy to find wiggling in the vinegar culture jar because they are always moving. When you see a vinegar eel on the slide, look for the structures shown in the diagram.



Movement A vinegar eel moves with a whip-like motion. Muscles that run along the sides of the worm make the body whip back and forth.

Feeding Vinegar eels feed on the acid-loving bacteria that make vinegar from fermented apple juice. Vinegar eels are adapted to living in acid.

Reproduction Male vinegar eels produce sperm. Female vinegar eels produce eggs. A sperm and an egg combine and grow into a new vinegar eel.

Size 2 mm or larger

Answer the following question.

What is the path of food in a vinegar eel?
