

SPONGES:ORIGINS

QUESTIONS

1. What appeared on planet Earth 3.5 billion years ago (bya)?
2. For how long did single-celled organisms dominate the Earth?
3. Why is a single-celled organism not classified as an animal?
4. Why are sponges considered animals?
5. Where in the world can you find living sponges?
6. Are the scientists being cruel when they cut off pieces of sponge for study?
7. What happens to the cells of a sponge after being broken up by a sieve?
8. In what ways are sponges like other animals?

9. What do the spicules do for the sponge?

10. Sketch any two sponge spicules here.

11. How does a sponge eat without a mouth?

12. How much water does a sponge need to pump to filter out 1 ounce of food?

13. How does Dr. Diaz demonstrate the pumping action of the sponge?

How is the sponge's pump powered?



Shape of Life

14. Do you agree with the narrator when he says that the sponge is more complex than we imagined? Explain your answer.

15. List two “firsts” in the animal kingdom that the sponge can claim.

16. Define in your own words the vocabulary words at the end of the video.

Collagen:

Spicule:

Filter feeding:

Choanocyte:

Flagellum:

Plankton:

Supplementary Questions

1. What are the defining characteristics of the phylum Porifera?
2. How do sponges move?
3. What senses do sponges possess?
4. Define multicellular:
5. Define the term, “specialized cell”.
6. What are some general items that sponges eat?