

ECHINODERMS: THE ULTIMATE ANIMAL QUESTIONS

1. Why does the narrator say that echinoderms show us that ours is not the only way to be successful as an animal?

2. Give the common name for the four major kinds of echinoderms.

3. Most animals you are familiar with including us have bilateral symmetry. Compare the fivepart radial symmetry of echinoderms to bilateral symmetry.



4. What might be the advantages of five-part symmetry?

5. It is obvious that a sea star has 5-part symmetry but how can an urchin or a cucumber have 5 part symmetry?

6. How is a sea star's skeleton different from ours?

7. How can a sea star be so flexible and then suddenly become rigid?

8. What is the advantage of holding the body rigid?



9. What does a sea star have instead of a brain?

10. What do sea urchins eat?

11. How do urchins sense their environment?

12. How do sea urchins move?

13. Why are sea cucumbers called vacuum cleaners of deep sea?



14. How and what do sea cucumbers eat?

15. What role do sea cucumbers play in the ecosystem?

16. How do brittle stars feed?

17. How do the tube feet and the water-vascular system work?

18. How does the water get into the water-vascular system?



19. What do echinoderms use their tube feet for?

20. Where do sea stars have their "eyes"? How does this arrangement help them coordinate movement?

21. What does echinoderms' skin do for them?

22. Describe how sea stars feed on mussels.

23. What are the advantages and disadvantages of eating with an extensible stomach?



24. What does time-lapse motion tell you about the lives of echinoderms?

25. What are the benefits of being headless, brainless and not bilaterally symmetrical?

26. Echinoderms seem so different from most animals, and they are very successful. What does this say about evolution?

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

1. Five-part symmetry

2. Sieve plate



3. Bony platelet

4. Radial canal

5. Nerve ring

6. Assimilate

