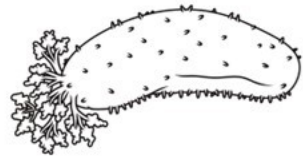# SHAPE OF LIFE: ECHINODERMATA

1. What are some familiar echinoderms that you see recognized in the first minute of the video?
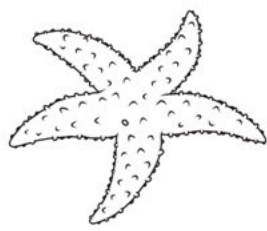
2. What type of symmetry do sea stars and other echinoderms have?

3. If you curl the 5 arms of a sea star up, which sphere-like echinoderm does it resemble?

4. If you turn an urchin on its side and stretch it out, which tube-like echinoderm results?

5. How many bony platelets make up the endoskeleton of a sea star? _____
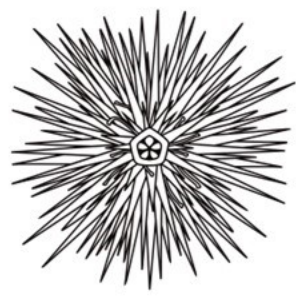
6. What joins the bone platelets together, allowing the arms to extend and flex, as well as to lock in place for hours if necessary?

7. Describe the nervous system of an echinoderm.

8. What do urchins eat?

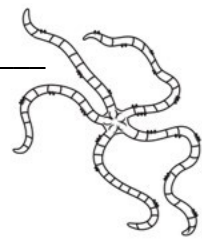9. How do urchins know where they are going in the water?

10. Describe how the sea urchin eats kelp.

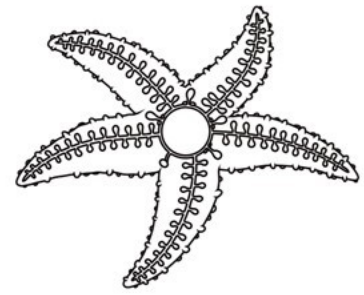11. True or False: Sea cucumbers are sessile, unable to move along the sea floor. _____

12. How do sea cucumbers eat?

13. Which echinoderms form a fuzzy carpet along the sea floor? _____

14. How do brittle stars eat?
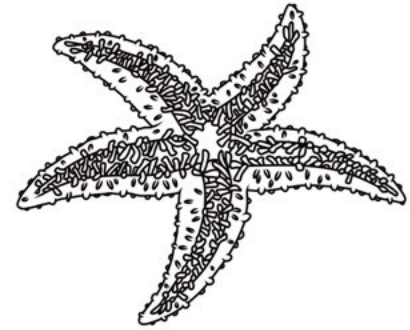
15. How do the tube feet extend to walk the sea star along the ocean floor?

16. What do the sensory tube feet at the tip of each arm sense? _____

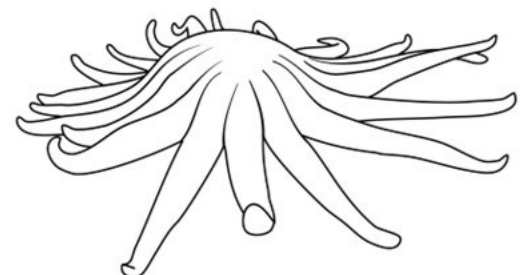17. What additional sensory organ is located at the tip of each arm? What can it sense?

18. How do sea stars eat? Describe the process in detail, explaining how different structures of the echinoderm play a role in the process.

19. How many arms can *Pycnopodia* have? _____

20. Which prey does *Pycnopodia* hunt? _____

21. In their marine habitats, are echinoderms successful or unsuccessful animals?

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Shape of Life