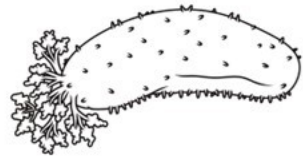


Name: \_\_\_\_\_



# SHAPE OF LIFE: ECHINODERMATA

1. What are some familiar echinoderms that you see recognized in the first minute of the video?



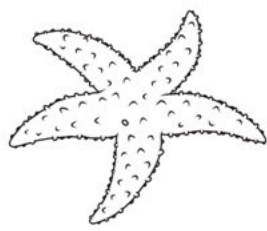
2. What type of symmetry do sea stars and other echinoderms have?

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? \_\_\_\_\_

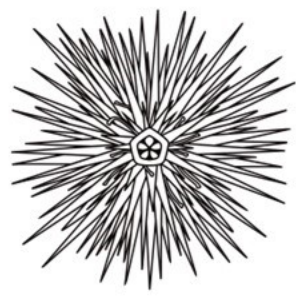
6. What joins the bone platelets together, allowing the arms to extend and flex, as well as to lock in place for hours if necessary?



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?

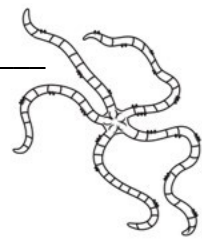


10. Describe how the sea urchin eats kelp.

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

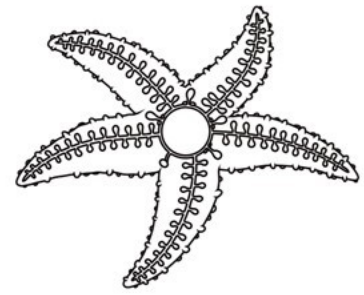
12. How do sea cucumbers eat?

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



14. How do brittle stars eat?

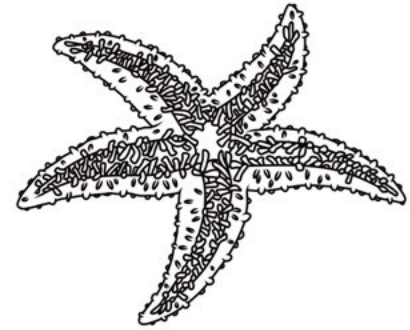
15. How do the tube feet extend to walk the sea star along the ocean floor?



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?

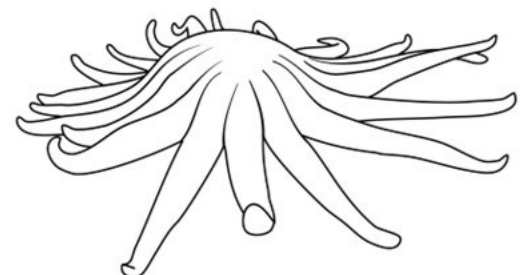
18. How do sea stars eat? Describe the process in detail, explaining how different structures of the echinoderm play a role in the process.



19. How many arms can *Pycnopodia* have? \_\_\_\_\_

20. Which prey does *Pycnopodia* hunt? \_\_\_\_\_

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



# THIS PRODUCT WAS MADE BY ...



THIS RESOURCE IS THE COPYRIGHTED PROPERTY OF RACHEL MILLER. YOU ARE LICENSED TO USE THIS RESOURCE IN YOUR OWN CLASSROOM AS A SINGLE-USER ONLY.

## You may...

- Use and make copies of this resource with your own classroom students.
- Share files with your students on a private, password protected website (ex. Google Classroom or Canvas).
- Share the link to this resource on [Shape of Life](#) with another teacher or on a public page.

## You may not...

- Share any parts of files or files on a public website, such as a school website or Facebook group. All access should occur through [Shape of Life](#).
- Claim this work as your own or create a derivative version of this work.
- Sell any files or combination of files. This resource is not for commercial use.

THANK YOU FOR PROTECTING THE HARD WORK THAT WENT INTO CREATING THIS RESOURCE!

## LOOKING FOR MORE ZOOLOGY RESOURCES?

**Myth or Fact Challenge**  
**Phylum Echinodermata**

ECHINODERMATA MYTH OR FACT #1  
• Starfish are a type of fish.  
**Myth**

ECHINODERMATA MYTH OR FACT #2  
• Echinoderms have an exoskeleton.  
**Myth**

ECHINODERMATA MYTH OR FACT #3  
• The prey of a sea star is too large to fit in their mouth, so they shoot their stomach out to digest the food externally.  
**Fact**

ECHINODERMATA MYTH OR FACT #4  
• Sea urchins have teeth.  
**Fact**

ECHINODERMATA MYTH OR FACT #5  
• Echinoderms can regenerate a missing or ray.  
**Fact**

ECHINODERMATA MYTH OR FACT #6  
• Sea urchin and sea cucumber meat is toxic to humans.  
**Myth**

Versatile & Low Prep

Science from SCRATCH

**Sea Star Anatomy**  
**Coloring Activity**

ANATOMY OF A SEA STAR

Sea Star, External Anatomy

Sea Star, Internal Anatomy

Miller-Nusslein System

No prior learning needed!

Science from SCRATCH

**High School Zoology**  
**Curriculum**

Complete Bundle

Science from SCRATCH

MANY THANKS TO THE AMAZING ARTISTS WHOSE WORK IS INCORPORATED INTO THIS RESOURCE:



And special thanks to...

