



# Sea Star Anatomy Puzzle

How does a sea star hold on to a rock as the tide comes in? And how can it open clam shells without using tools? Take a tour of the insides of these tough intertidal invertebrates and assemble your own model to find out.

## Materials

Scissors

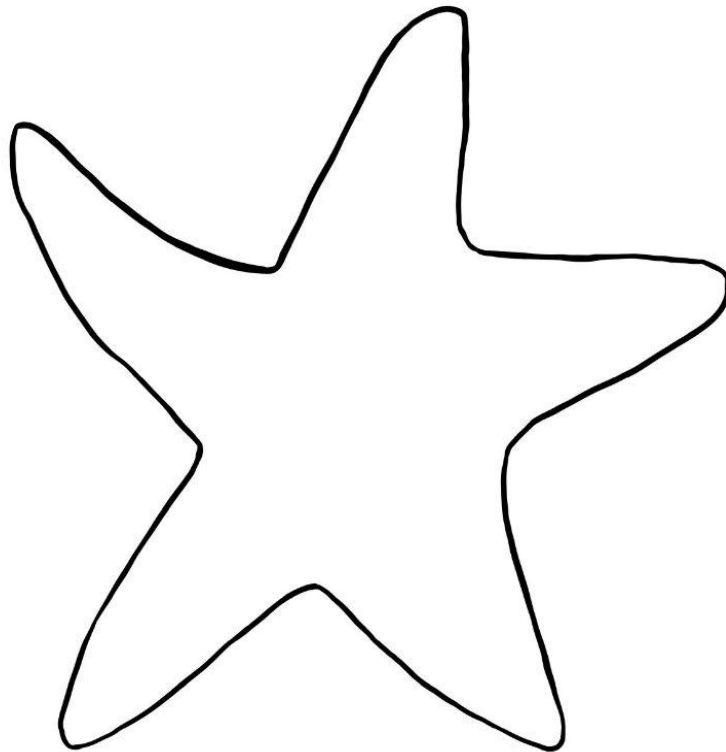
Print-out templates (pages 2-3)

Crayons or colored pencils (optional)

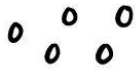
## Directions

1. *Optional:* **Watch** the “Sea Star Anatomy” video to learn about what’s going on inside a sea star with Academy volunteer Aneeka.
2. **Print** and **color** the sea star silhouette (page 2) and sea star anatomy pieces (page 3).
3. **Read** the descriptions next to the anatomy pieces (page 3).  
Based on the clues, where do you think they belong in the sea star’s body?
4. **Cut out** the sea star (page 2) and anatomy pieces (page 3).
5. **Assemble** the sea star anatomy puzzle by arranging the puzzle pieces on top of and below the sea star silhouette. Some pieces will overlap one another.

# Sea Star Silhouette



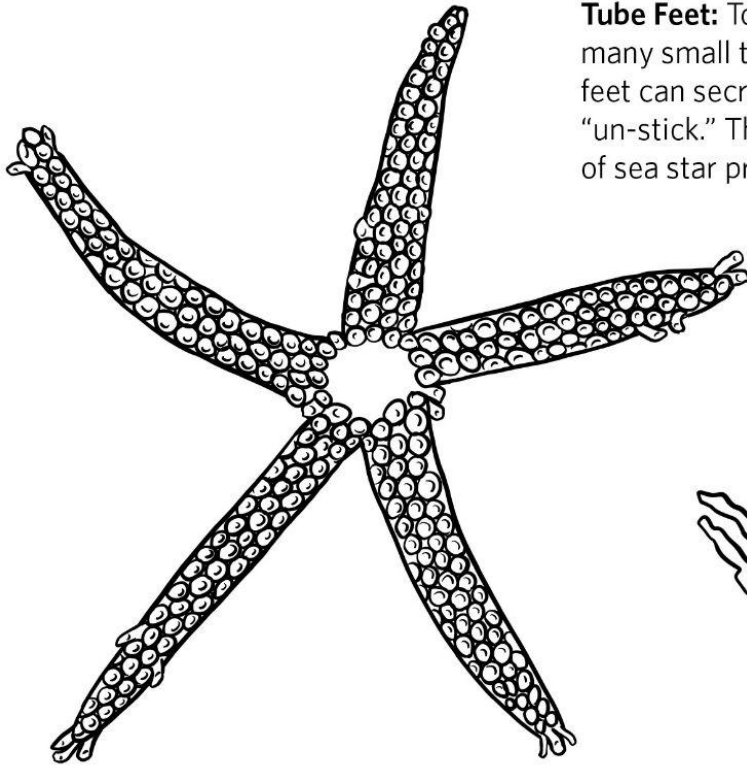
## Sea Star Anatomy Pieces



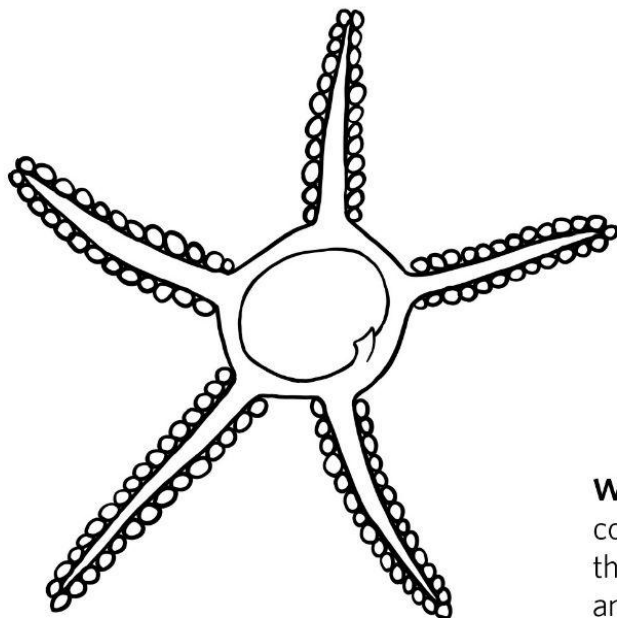
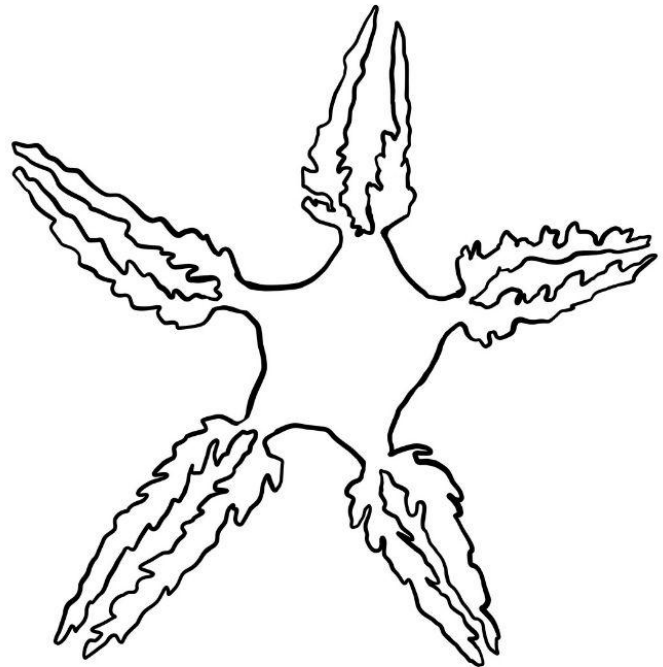
**Eyespots:** Sea stars have an eyespot at the tip of each arm that allows them to sense light and dark, and find their prey.



**Madreporite:** This spot on the top surface of the sea star brings water into its water vascular system. A small canal connects it to the *Ring Canal*.



**Tube Feet:** To move, sea stars can push and pull water through many small tube feet on the underside of their bodies. Tube feet can secrete a glue-like adhesive, as well as a substance to “un-stick.” They are helpful for gripping then opening the shells of sea star prey, like clams!



**Stomach and Digestive Glands:** A sea star’s mouth, in the center of the bottom surface of its body, connects directly to its stomach. The sea star can push its stomach outside of its body to start digesting food before pulling it back in. The digestive glands in the sea star’s arms absorb the vitamins the sea star needs from its prey.

**Water Vascular System Canals:** The central *Ring Canal* connects the *Radial Canals*, which are found in each arm of the sea star. The small circles on the ring canals show the ampullae, part of the tube feet.