

Student

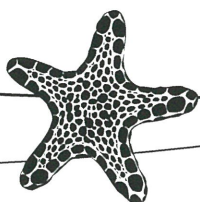
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Australian Government

Great Barrier Reef
Marine Park Authority

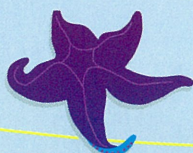
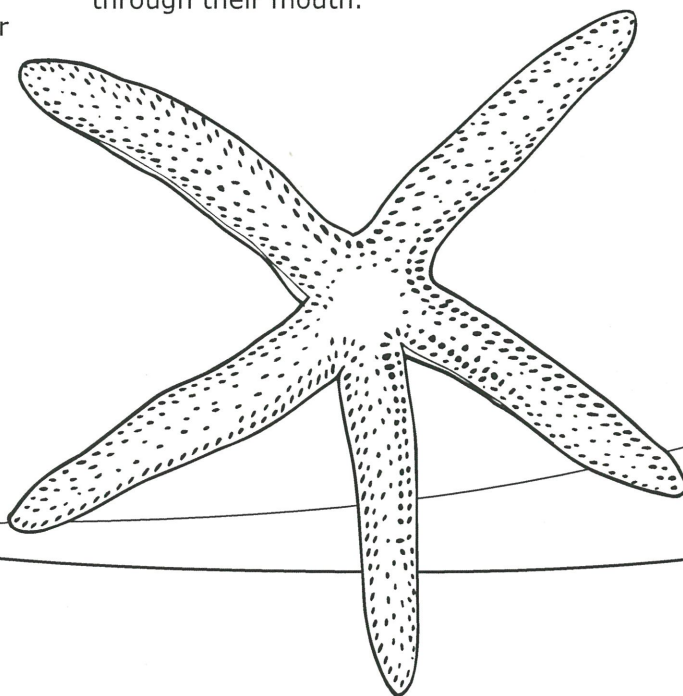
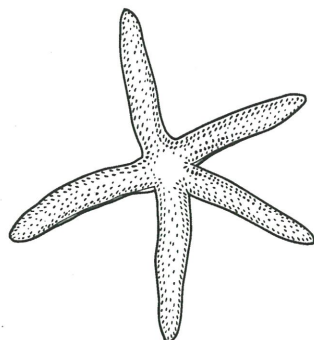
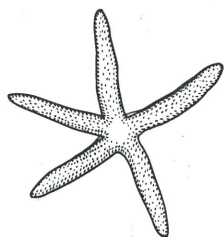
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May 2005

Sea stars

- If a sea star is bitten in half, each half can potentially grow back into a full sea star.
- Sea stars have tube feet with suckers on the underside of their body.
- Sea stars have an eye at each end of their five arms. These eyes see only light and darkness.
- Sea stars have an amazing water vascular system.
- A sea star's mouth is on the underside of its body.
- If a sea star loses its arms, another one can grow back.
- Some sea stars reproduce when parts of their bodies break off and grow. In some cases the leg of a sea star will simply 'walk away' from the rest of the body.
- Some sea stars eat by pushing their stomach through their mouth.



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Appearance

Sea stars (starfish) are the most common echinoderms on the Reef and they come in all shapes and sizes. As their name suggests, sea stars are commonly recognised as stars and come in many different colours, the most common being yellow, red, orange, blue and pink. Some are entirely one colour while others have a unique design.

Sea stars and all other echinoderms have three main characteristics including a symmetrical five-part body plan, tube feet and a skeleton of plates. A sea star's mouth is also found on the bottom of the body. Most sea stars have five arms with sensory organs at each end. This eye sees only light and darkness. If one of these arms is lost, another one can be grown back.

A sea star's water vascular system

Sea stars have an amazing water-vascular system, with water-filled tubes ending in numerous finger-like projections (tube feet) that stick out through the skin. Their tube feet are located on the underside of their body on the end of the suckers and are used for movement. The water-vascular system works on water pressure, creating a network of tube feet that look like hundreds of tiny, hydraulically operated legs.

Feeding

Sea stars feed on a variety of foods ranging from algae and detritus, to living coral polyps. Most sea stars don't send food to their stomach, they send their stomach to the food. The sea star sits on top of the food and everts its stomach through its mouth, covering and digesting the food externally. Others have small teeth like structures that are used for scraping algae off rocks.

Breeding

Many sea stars are able to reproduce asexually when parts of their bodies break off and grow. Some sea stars reproduce by mass spawning.

Habitat

Some sea stars live on the ocean floor while others live around the coral reefs. The most commonly encountered sea stars on the Reef are the cobalt blue, linckia and foten, which are found on most reef flats.

