

Student

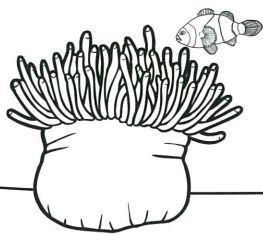
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Australian Government

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Marine Park Authority

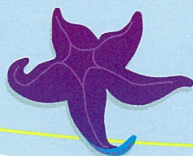
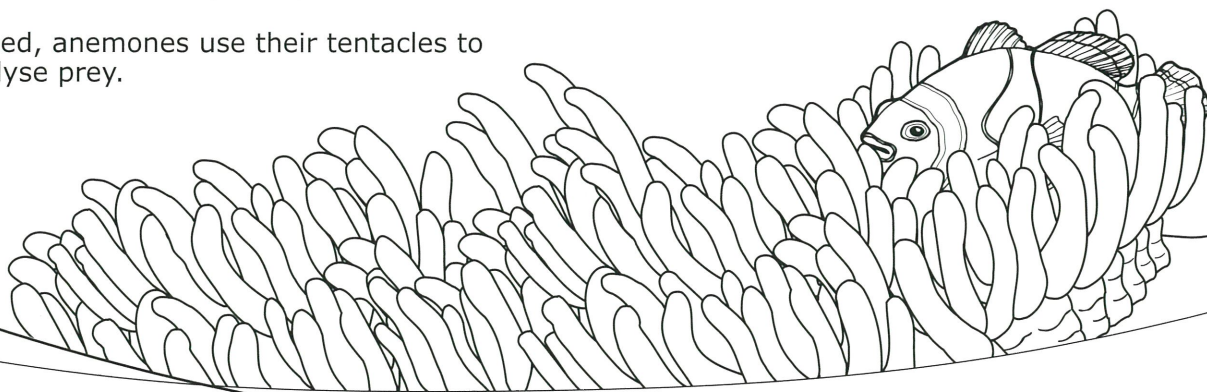
#17



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Anemones (*anem-on-ies*)

- Anemones are animals and are from the same group as corals, Cnidarians.
- Anemones have stinging cells in their tentacles that can paralyse most fish.
- Clown anemonefish and other anemonefish can live amongst anemones as they do not get stung by their tentacles.
- Anemones have the tiny algae, zooxanthellae, living inside them so they grow best in shallow, sunny waters.
- To feed, anemones use their tentacles to paralyse prey.
- Some sea stars and butterflyfish feed on anemones.
- Many sea anemones can clone themselves by breaking off a small part of their base, which then grows into an adult anemone or crawling in two directions at once and slowly tearing themselves in half.
- Many sea anemones are thought to be able to live for centuries.



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Many people mistake anemones for plants, but they are actually invertebrate animals. An anemone represents a very large single coral polyp without a skeleton. Like hard corals, anemones' tentacles come in multiples of six. They are loaded with stinging cells (nematocysts) which can paralyse fish but only a few species are able to penetrate human skin. Some fish, such as the clown anemonefish, are able to live in anemones without being stung.

Anemones can move, but only very slowly over rocks and dead corals. The size, shape and colour of an anemone varies in each species. Anemones can range in size from one centimetre to over a metre in diameter. The bottom of the anemone is attached by a special disc, but is capable of moving around by sliding very slowly.

Many anemones have resident zooxanthellae living inside them and grow best in shallow, sunny waters. The zooxanthellae are photosynthetic organisms whose waste products are used by the anemone for food. Anemones are carnivores capable of catching fish and small crustaceans. Most feed at night by using their tentacles to paralyse their prey and bring it towards their mouth. Anemones have no visible sense organs and will eat anything that tastes like food. Anemones use their poisonous stings to fight for territory with corals and other anemones. Like corals, anemones reproduce sexually and asexually.

Anemones' relationship with clown anemonefish

In the Great Barrier Reef, all clown anemonefish nestle safely amongst the stinging tentacles of large sea anemones. The anemones' tentacles can paralyse most other fish, but have no effect on clown anemonefish. Scientists have discovered that clown fish can live within an anemone because they have a layer of mucous that keeps the tentacles from stinging them.

Clown anemonefish use the anemones' stings for protection, as the anemones' tentacles keep predators at bay. In the wild, a clown anemonefish never lives without its host anemone, but the partnership benefits the anemones too. They often get scraps of food that the clown anemonefish drop when they eat and predators that chase clown anemonefish may fall prey to the anemones' tentacles. The aggressive clown anemonefish also protects the anemone by chasing away anemone-eating animals, such as sea stars and butterflyfish.

