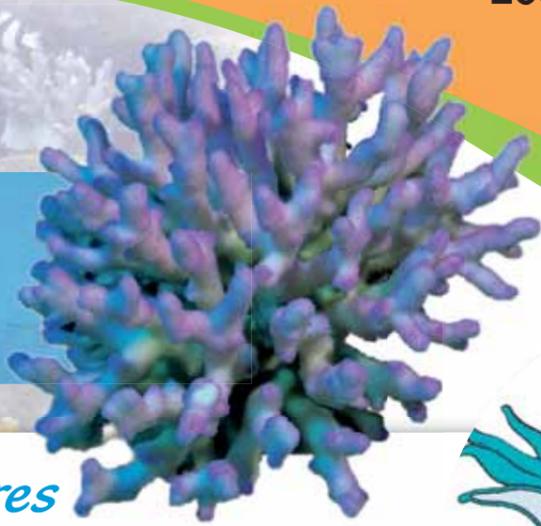


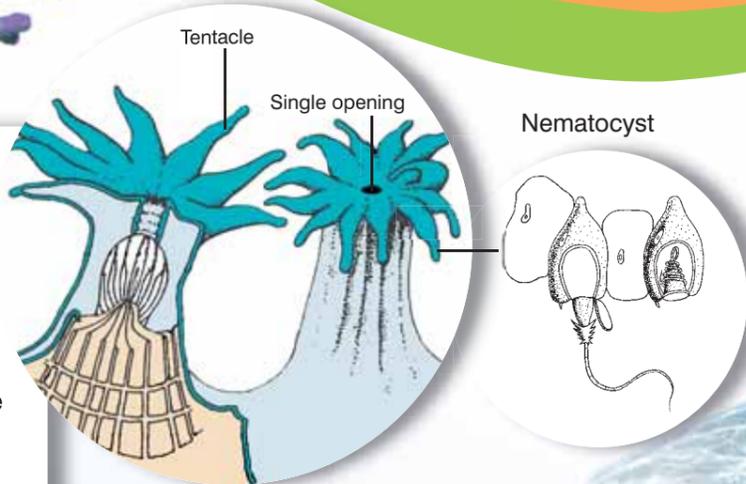
REEF Beat 3

Corals



Creature Features

- Most hard and soft coral colonies are made up of tiny animals called coral polyps
- Coral polyps have a single opening surrounded by tentacles for both food and waste, (see coral cross section, right)
- The “building blocks” of the Great Barrier Reef, corals are responsible for the formation of the Reef. They attract millions of visitors from around the world who visit the Reef each year to explore the wonderful corals and sea creatures
- The Great Barrier Reef has about one-third of the world’s soft corals and 360 species of hard corals
- Jellyfish are in the same group of animals as corals and most use stinging cells found in their tentacles to capture food, these cells are called nematocysts, (see nematocyst illustration, right).



Coral cross section

How does Coral Bleaching occur?

Tiny single-celled algae, called zooxanthellae (pronounced zoo-zan-thel-ee), live within the tissue of corals and provide the energy that corals need to grow through photosynthesis. It is this zooxanthellae that give corals their extraordinary colours. When stressed the zooxanthellae are rejected out of the coral so that the coral’s tissue becomes transparent. The skeleton inside the coral is white so the coral looks bleached without the zooxanthellae. The main cause of coral bleaching is extended periods of high water temperatures so bleaching is usually seen in summer.



Healthy Coral



Bleached Coral

Conditions for Corals

The corals that we see in the Great Barrier Reef today are about 10 000 years old. Now I wasn’t around back then, but I can tell you that 50 years ago corals in the Great Barrier Reef came in all shapes and sizes in every colour of the rainbow. Corals grow best in clean, clear and warm tropical waters (22° - 29° Celsius) with low nutrient levels and back then the tropical waters of Queensland provided exactly this.

Today, there are rising sea temperatures due to global warming and climate change. There are more people living along the coastline next to the Great Barrier Reef and pollution in the water running off the land is having a negative affect on the water quality surrounding the Reef. The corals are suffering and are not as resilient (able to withstand change) as they once were, because rising temperatures and poor water quality are affecting them.

Branching		Bushy		Plates	
Coral Forms Types and Examples					
Digitate		Massive		Soft	
Encrusting		Soft		Soft	

What you can do

To improve the health of corals we need to reduce the impacts of climate change and improve water quality. Here are some of things you can do when at home or school:

- Reduce your energy use – turn lights off at school and in your home when you are not in the room
- Ride your bike to school or ask your parents to give your friends a lift to school one day and then you can go with your friends’ parents the next day, this will cause less pollution (Carbon dioxide CO₂) from cars on the road
- Remember that what goes down the drain will end up in the ocean.

