



Explore a Coral Reef



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Get to know one of the most amazing ecosystems on Earth.



Colorful coral grows in twisting forms. Bright fish flash past. Sea turtles visit, and sharks swim nearby. It's a coral reef! Read on to find out more about these underwater homes.

Cool Coral Reefs

Coral reefs come in many colors and shapes. Some look like swaying, underwater plants. Others look like bumpy rocks. But corals aren't plants or rocks—they're actually living animals! A coral is a small marine animal. Each single coral is called a polyp. Corals do not have skeletons inside of them. In fact, they are related to another squishy sea animal you might know from "Finding Nemo": the tentacled sea anemone.

Corals have a unique way of protecting themselves. Each coral creates a mineral, or type of material, called calcium. Calcium is the same material that makes up your bones! Over time, this calcium builds up into a type of rock called limestone. The polyp is protected in its rock skeleton. It uses small tentacles to reach out and grab passing food. Over time, the rock skeletons of polyps connect together. This forms a large structure of coral. Some coral can grow into large communities called coral reefs. Other organisms join this community. Some animals feed on the coral or the plants that grow nearby. Together, these plants and animals form an ecosystem. An ecosystem is an area where certain plants and animals live together and form an environment.



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So, where can you find these coral reef ecosystems? Most coral reefs grow in warm waters in or around the tropics. The tropics are a region of the planet near the equator, or an imaginary line that circles the planet's middle. There, it is often very warm and moist. Some corals can grow in colder waters around the world, and even in deep water. But the kinds of corals that build reefs need to grow on shallow ocean floors where lots of sunlight can reach them.

These coral reef ecosystems are very important. They provide homes and food for many ocean animals. They help keep the ocean healthy.

DID YOU KNOW?

Coral reefs help support 25% of life in the ocean.

This is important not just for the animals in the ocean, but for humans, too. Humans depend on the ocean. Much of our food comes from it. Much of the oxygen we breathe also comes from the ocean, too! Because of this, coral reefs are very important to the whole planet.



A tan, grooved "brain coral," right at home on the ocean floor.

Coral Communities

Think about where you live. Is it a home in a suburb? On a farm? Or in an apartment? According to scientists, a coral reef is like a big city filled with busy apartment buildings. Many animals live in and around each coral. Even more live around the whole reef! In fact, coral reefs are often home to different kinds of coral. Some types of coral are soft and bendy. These do not build reefs, but they still might live



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in a reef. The kinds of coral that build reefs are known as hard corals. There are many amazing corals in the oceans. One type, brain coral, looks a little bit like a human brain! Another kind, sun coral, looks like it is made of bright yellow flowers.

Many other animals call coral reefs home. Crabs scuttle around the coral. Fish dart in and out. Sea turtles and sharks swim nearby. One amazing animal that often lives near reefs is called a dugong. The dugong is a type of marine animal related to the manatee. It is also related to elephants! Dugongs feed on seagrass. They are mammals, so they must swim to the surface to breathe air.

FUN FACT

The Great Barrier Reef, which is located off the coast of Australia and is the largest coral reef system in the world, can be seen from space.

Another animal that often calls coral reefs home is the octopus. An octopus is a type of animal called a cephalopod. Cephalopods have large heads, and at least eight arms. Octopuses also have two hearts, nine brains, and blue blood! Coral reefs help keep octopuses safe by providing them with many places to hide. The reefs are also good places for octopuses to find food.

Saving Coral Reefs

Although coral reefs are important to the planet, they are in danger because of climate change. Climate change is a change in the weather patterns and temperature of the Earth. It is caused by human pollution. One way that climate change affects the ocean is by causing it to get warmer. This can make it hard or even impossible for some animals and plants to survive.



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When coral reefs get too warm, they start to bleach. What does this mean? Normally, there are tons of tiny organisms, called algae, living on corals. This algae helps keep the coral healthy. But when it is too warm, the algae cannot survive there. Then, the coral doesn't have food to eat and becomes sick.

Luckily, many people are working to save and protect coral reefs. Some governments are setting up rules that keep coral reefs and the animals that live there safe. Some organizations are helping remove trash from the seas. And around the world, many people are working to end climate change. Together, we can keep coral reefs healthy—and keep the ocean healthy, too.