

Coral reefs: lesson 2 of 4

Amazing polyps

Meet the tiny animals that
build a reef



Branching corals growing in MCP's coral nursery. Photo: MCP



Animal, plant or rock?

Coral looks a bit like all three. Vote: what do you think coral is?

Animal?

It catches food with tentacles.

Plant?

It needs sunlight to grow.

Rock?

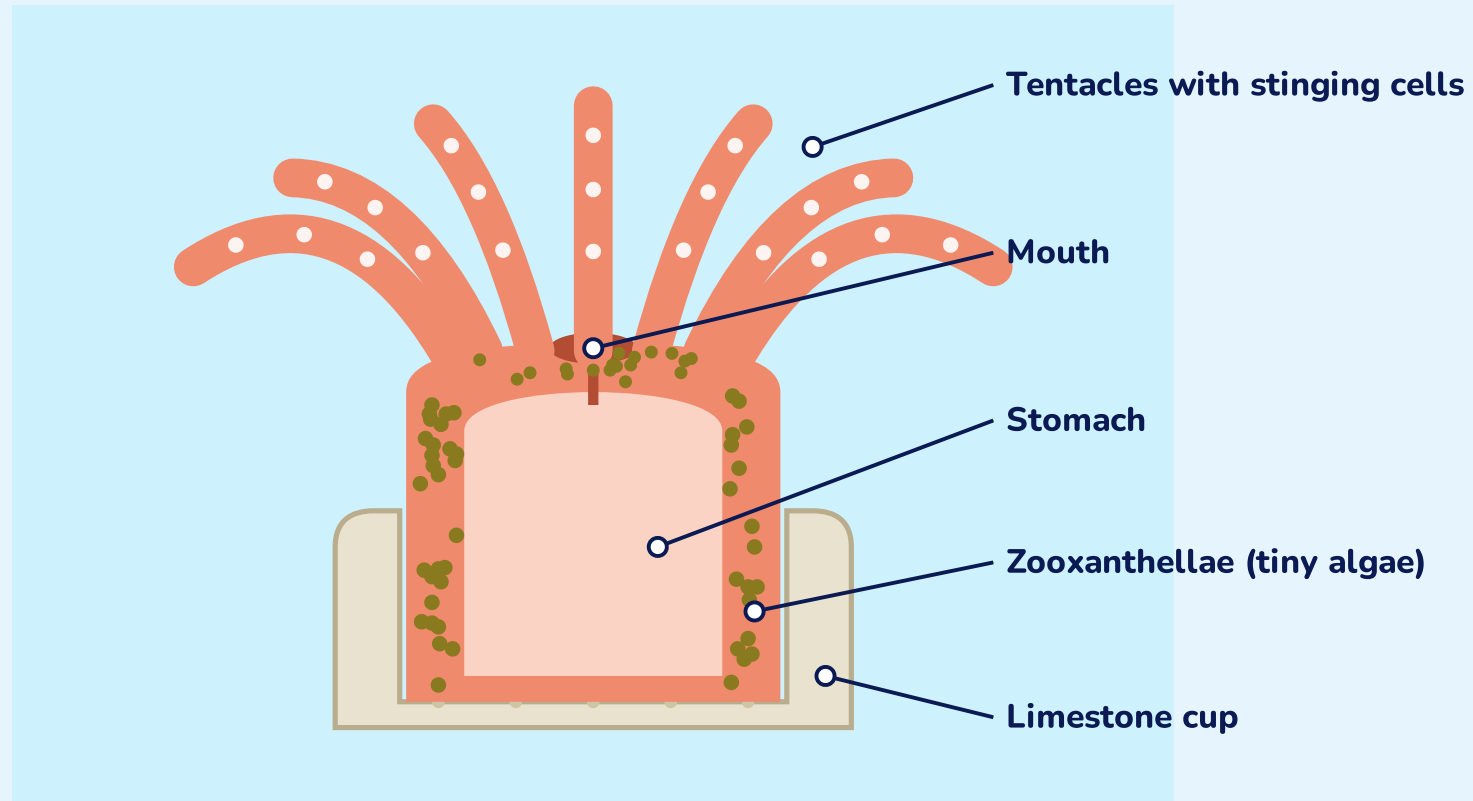
It feels hard and stony.

The answer: coral is an animal. But it has a plant-like partner and builds a rock-like skeleton.



Meet the polyp

Each coral polyp is a tiny animal, often only a few millimetres across, related to jellyfish and sea anemones.

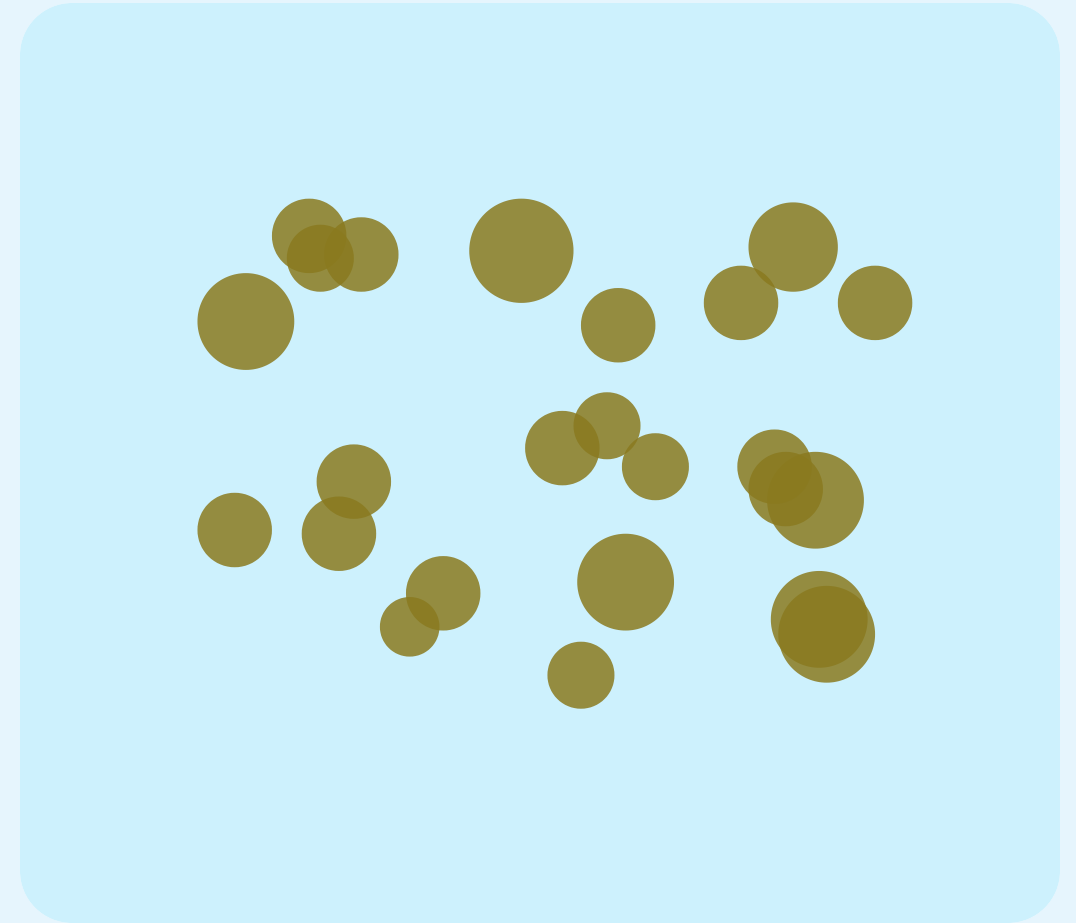


A tiny partnership

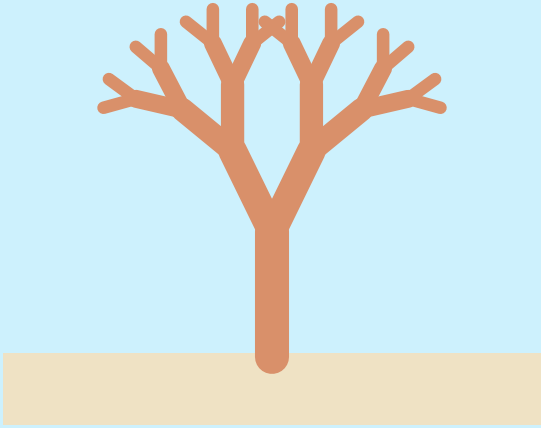
Inside a coral polyp live millions of tiny algae called zooxanthellae. They use sunlight to make food, and share most of it with the coral.

In return, the coral gives the algae a safe home. The algae also give coral most of its colour.

That is why reef-building corals need clear, shallow, sunny water.

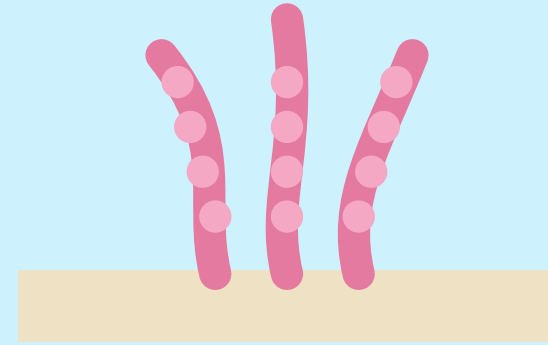


Hard and soft corals



Hard corals

Build stony limestone skeletons, and their tentacles come in sixes. These are the reef builders.



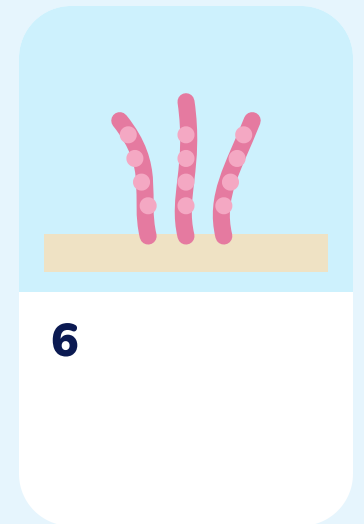
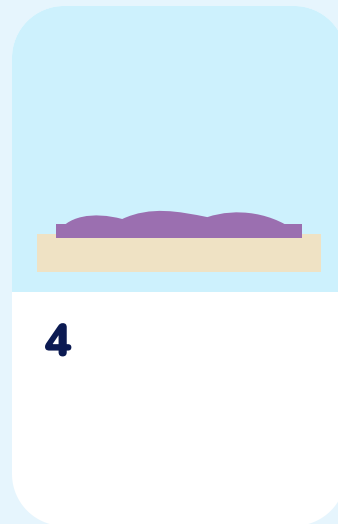
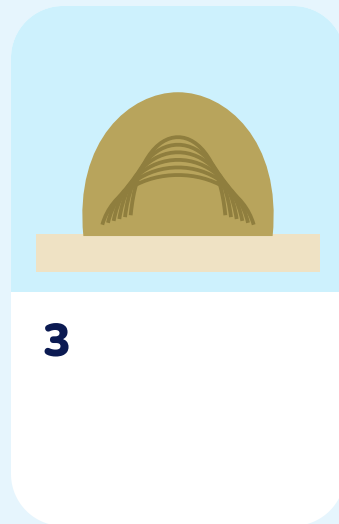
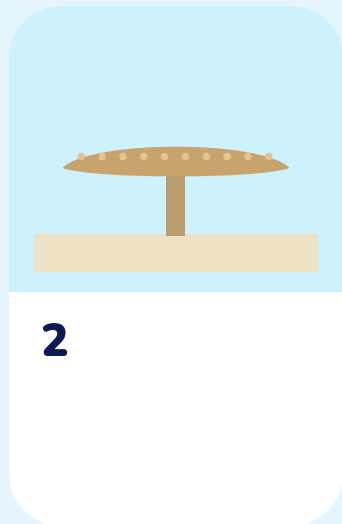
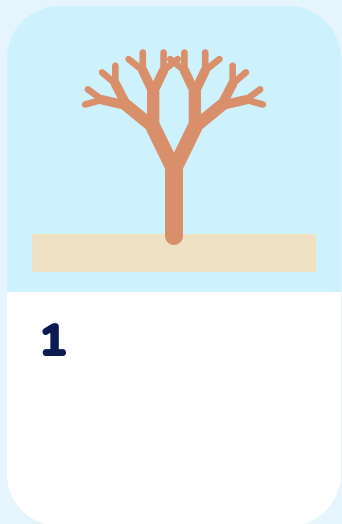
Soft corals

Have eight feathery tentacles and no stony skeleton, so they sway with the water.

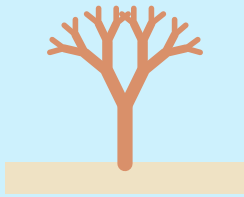


Guess the coral shape

Corals grow in different shapes. Match each picture to a name on your worksheet: branching, table, massive, encrusting, mushroom, soft coral.

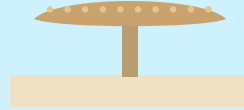


Coral shapes: answers



1
Branching

grows like the branches of a tree



2
Table

a flat plate on a short stalk



3
Massive

a solid boulder, sometimes with brain-like grooves



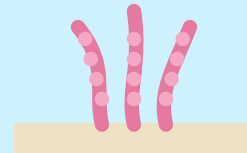
4
Encrusting

a thin layer spread over rock



5
Mushroom

a single big polyp that lies loose on the sand



6
Soft coral

bendy, with no stony skeleton



Slow builders

10 cm+

a year for some fast-growing branching corals

**about 1
cm**

a year for many massive boulder corals

thousands

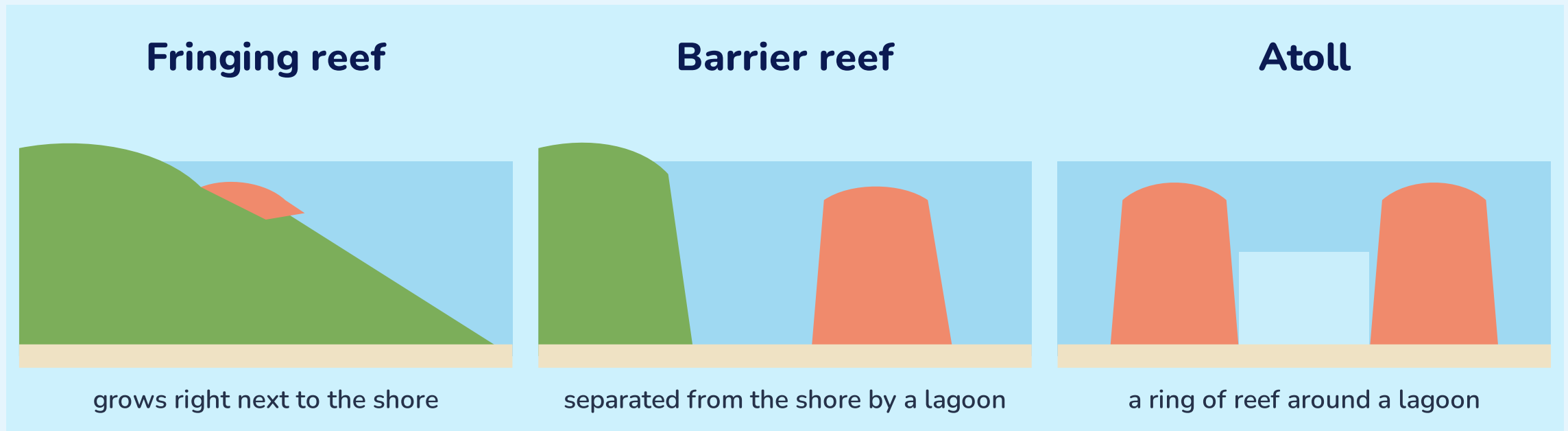
of years to build a big reef

A boulder coral as big as a car may be hundreds of years old. That is why a reef damaged in one day can take decades to recover.



Three kinds of reef

Most reefs in the Philippines, including those near MCP, are fringing reefs that grow close to the shore.



When corals get too hot

If the sea stays too warm for too long, corals push out their zooxanthellae. Without them, the coral turns white. This is called bleaching.

A bleached coral is not dead yet. If the water cools down soon, the algae can come back. If the heat lasts, the coral may starve and die.



Bleached coral



Build an edible polyp

1. A cracker or biscuit is the limestone cup.
2. A marshmallow, a banana slice or a piece of fruit is the polyp's body.
3. Strips of fruit or thin sweets are the tentacles.
Count out six, like a hard coral.
4. Sprinkles or seeds are the zooxanthellae living inside.
5. Name every part before you eat it!

Before you start

Check for food allergies first.

Wash your hands.

No food? Use clay or playdough instead.



Talk about it

Why do corals need sunlight, even though they are animals?

Why does a reef take so long to grow?

What would happen to the fish if the corals bleached and died?

How could we help corals stay healthy?

Next time: the reef's neighbours, mangroves and seagrass



Photos and sources

Photos: coral nursery by MCP, Negros Oriental. All illustrations drawn for this lesson by Marine Conservation Philippines.

Sources:

- NOAA National Marine Sanctuaries. Coral reef background for teachers.
- NOAA Coral Reef Watch (2026). Fourth global bleaching event.
- Licuanan, A.M. and others (2017). Philippine Journal of Science 146: 177-185.
- Marine Conservation Philippines.

Full links are in the teacher reading. Free to use and share for education. Made by Marine Conservation Philippines. More free lessons: marineconservationphilippines.org/resources/teachers-resources/

