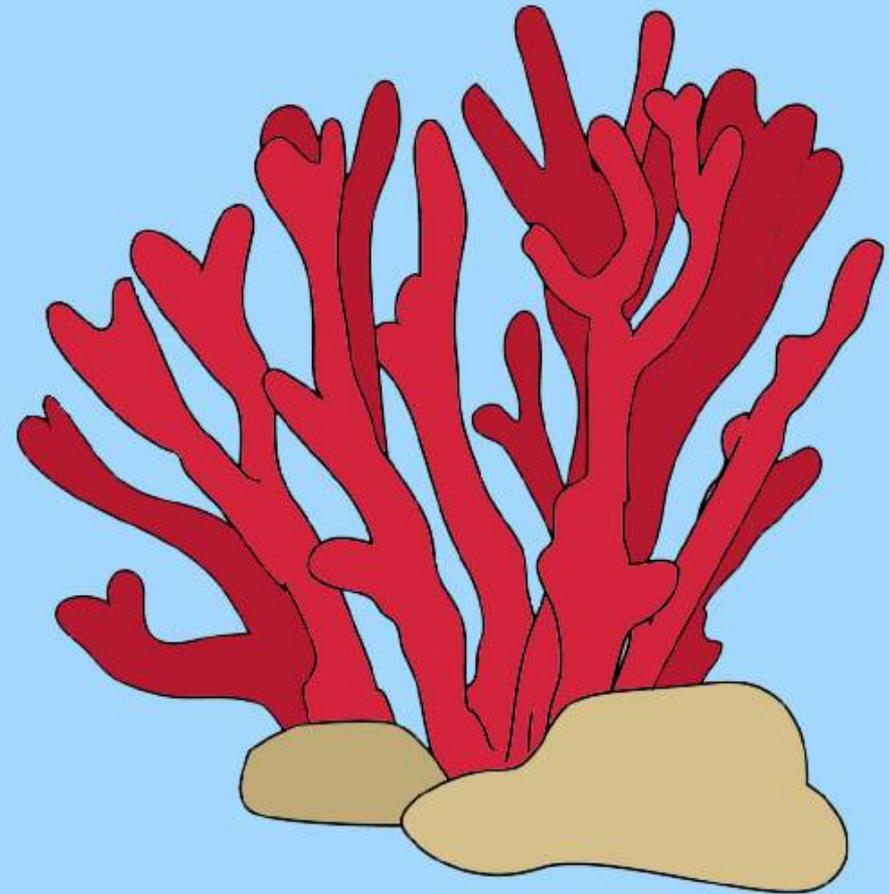


Features of a Coral Polyp

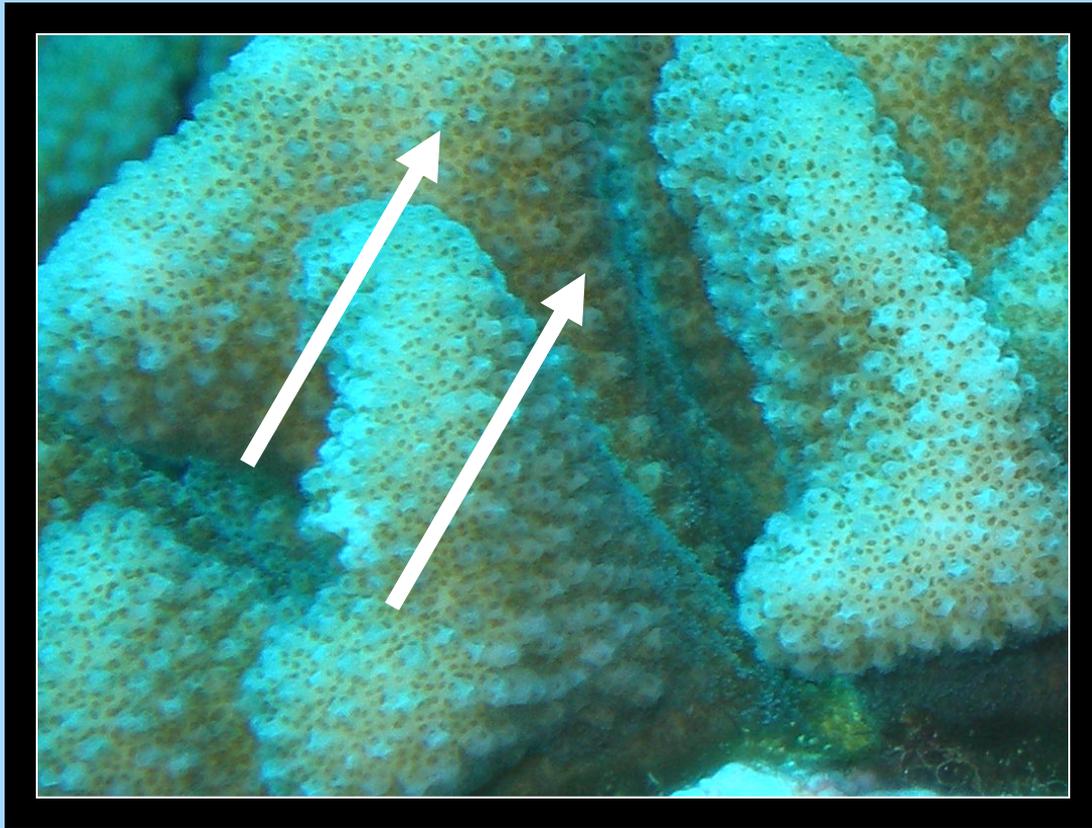
Grade 3 Unit 3 Lesson 2



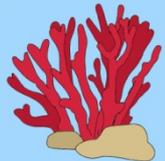
Topics to be Covered...

- What's a polyp?
- Day and night feeding behaviors of coral polyps
- Coral Stressors





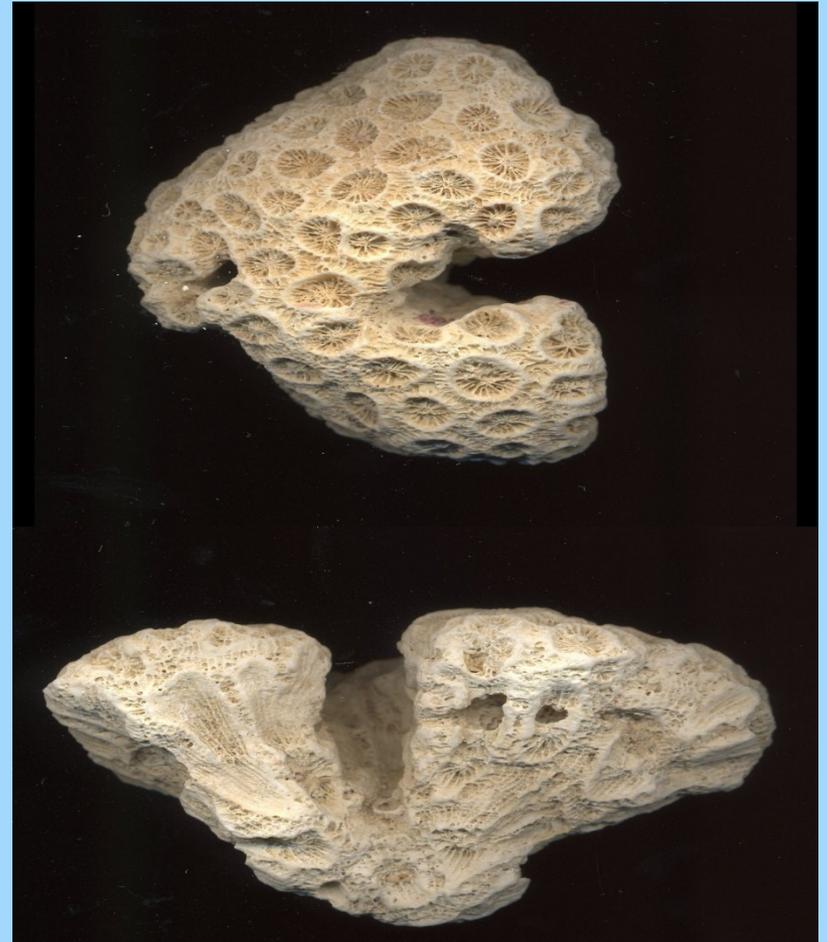
Reef coral is made of many small individual animals called *polyps*.



Is it a rock?

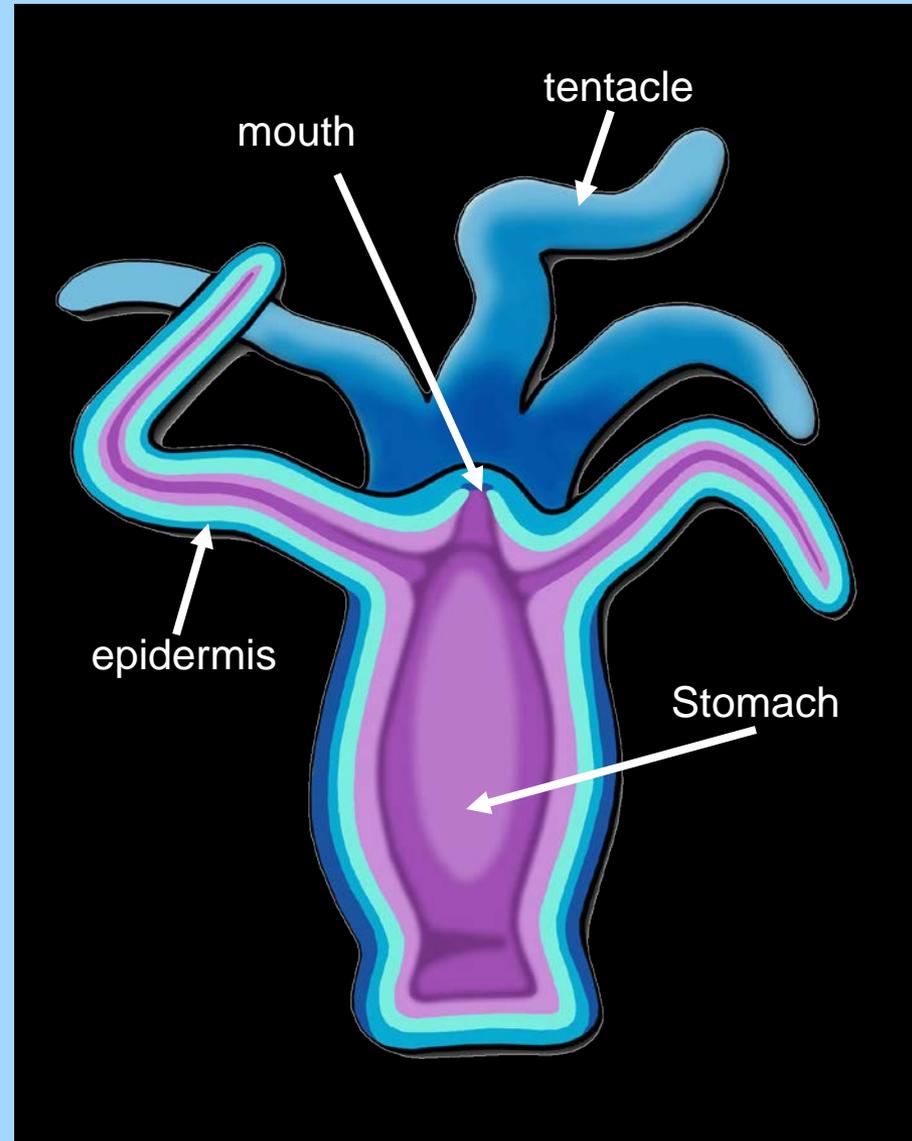
It's a type of rock!

Coral polyps make a stony structure out of *calcium carbonate* called the *caylx* in which they live



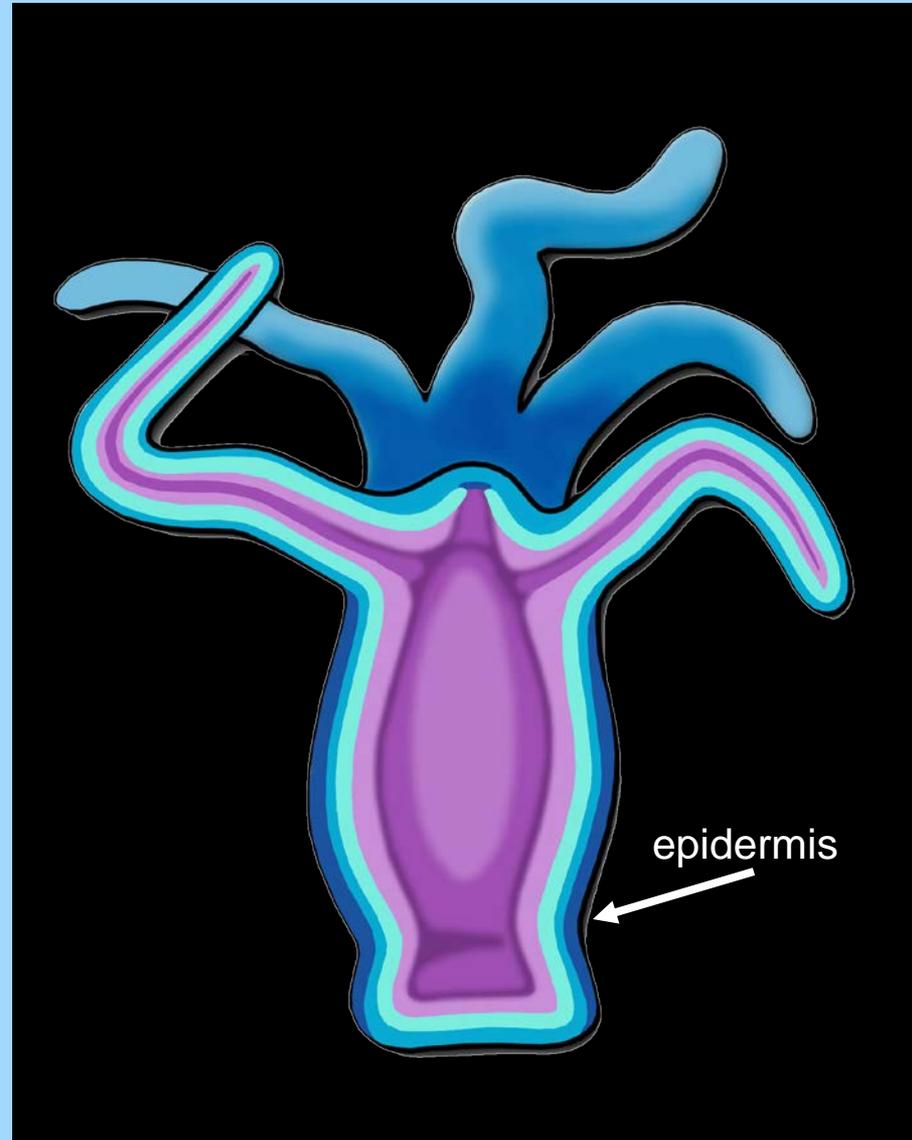
What's a polyp?

- The basic body form of a coral animal
- Structure like a sac
- The open end bears the mouth, which is surrounded by tentacles



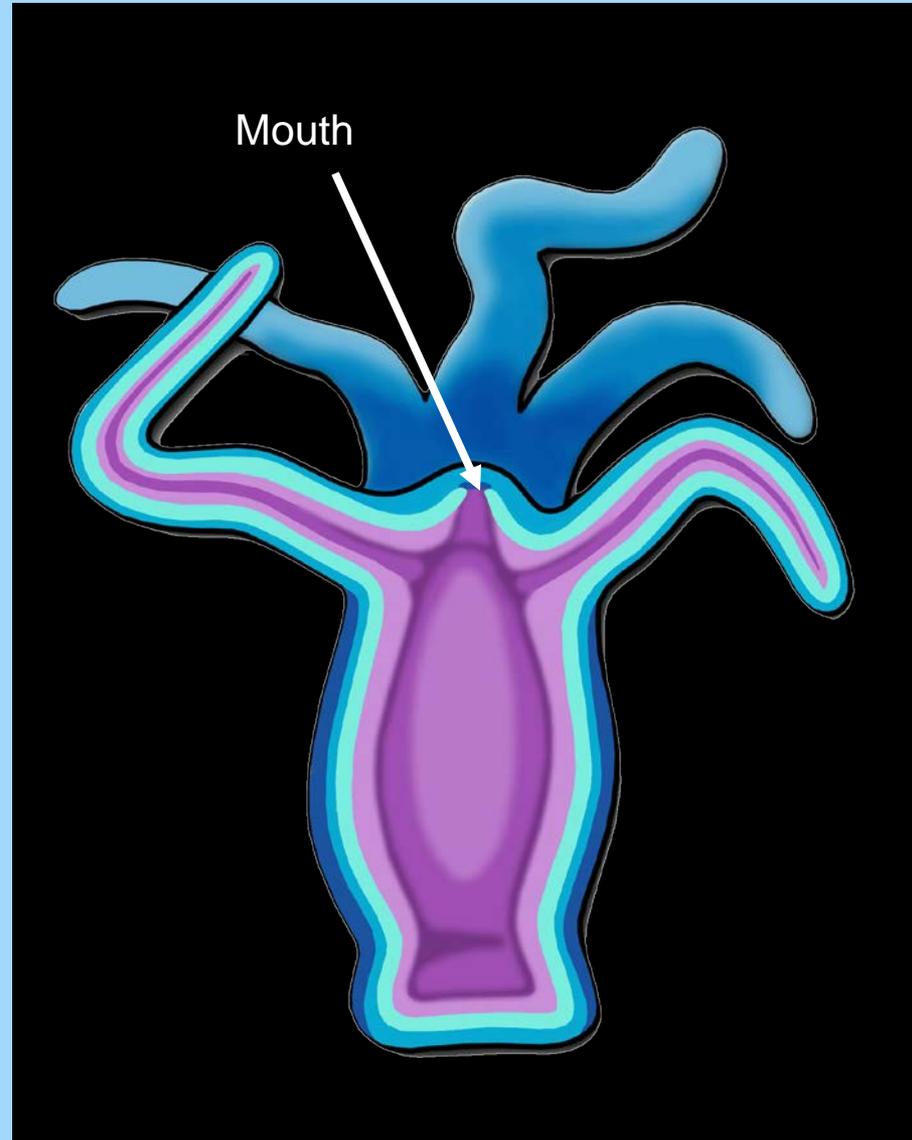
What's a polyp?

- The outer **epidermis** is the outer tissue layer of the polyp.



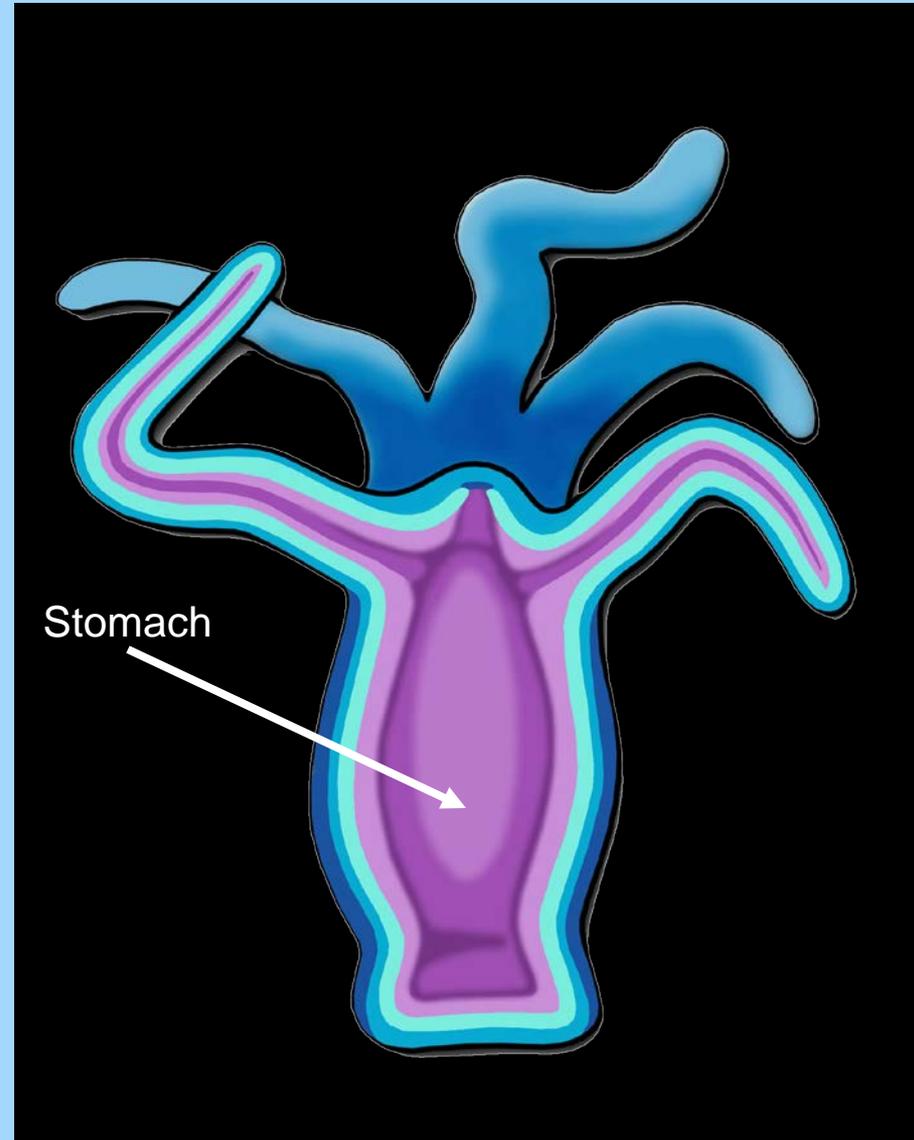
What's a polyp?

- The function of the **mouth** is to take in food and get rid of some waste products.



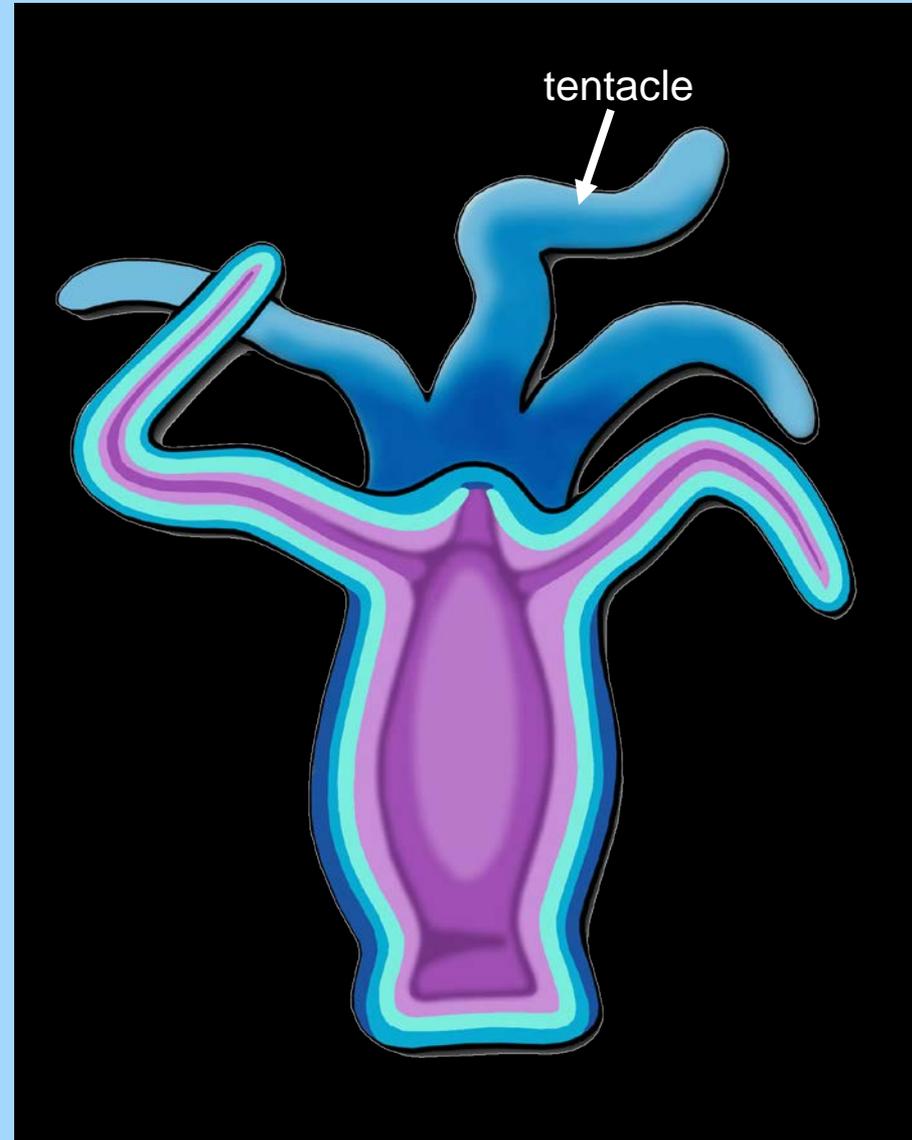
What's a polyp?

- The function of the **stomach** is to digest the captured prey.



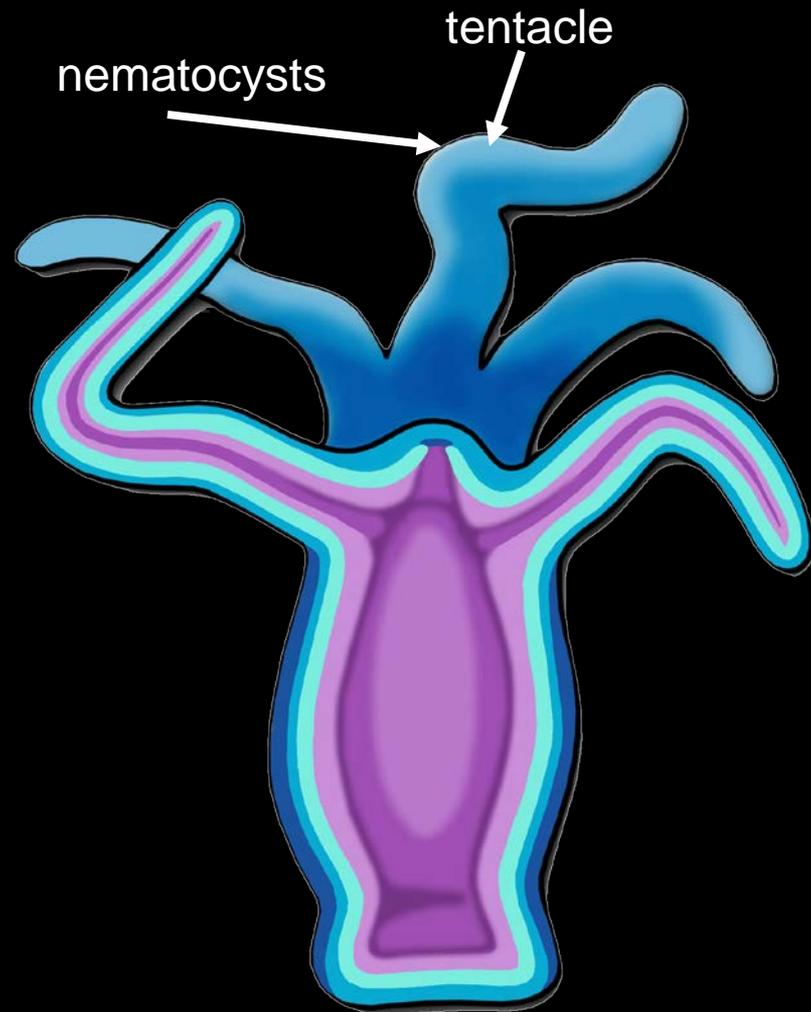
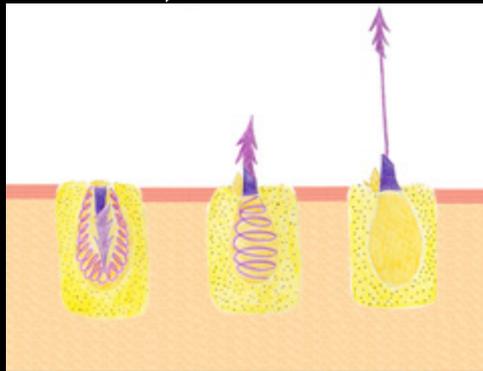
What's a polyp?

- **Tentacles** help the coral to capture and ingest plankton for food, clear away debris from the mouth, and act as the animal's primary means of defense.



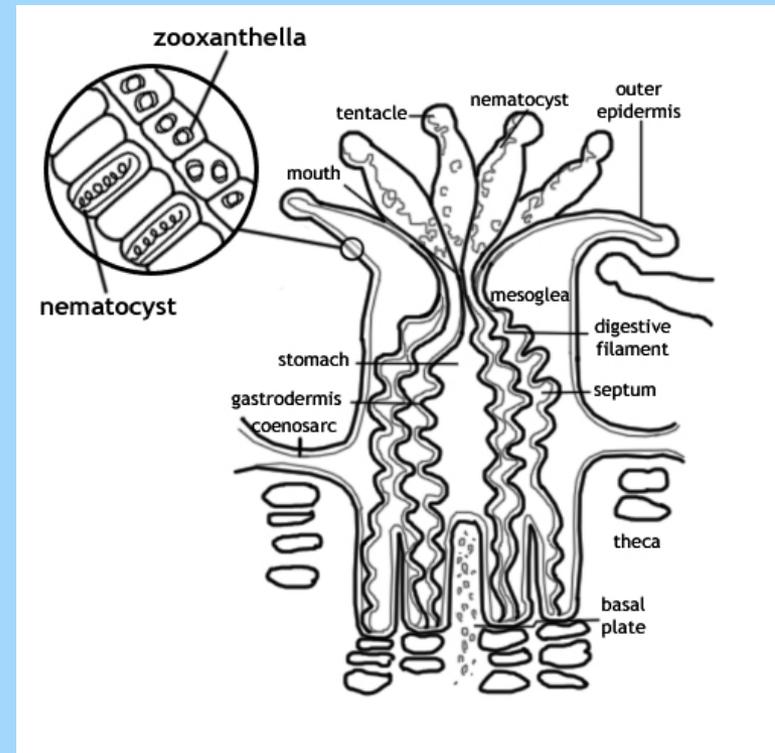
Nematocysts or Stinging cells

Close up of nematocysts
located on the tentacles



What's a polyp?

- Polyps have symbiotic algae, called *zooxanthellae* living in their outer epidermis cells.
- *Zooxanthellae* make food for the polyp through photosynthesis





Symbiosis: coral & zooxanthellae

- symbiosis: a close relationship between two organisms usually based on food
- If the zooxanthellae feeds the coral, what does the zooxanthellae get out of the relationship?

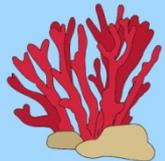


When do corals eat?

Coral must eat - it's a consumer!



Nematocysts are used to sting, catch, and kill prey

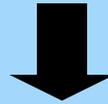


Coral Stressors

Ocean water is getting warmer



When water gets too warm, zooxanthellae leave the coral tissue



When zooxanthellae leave, corals lose their color AND food supply



Coral Bleaching



Coral Stressors:

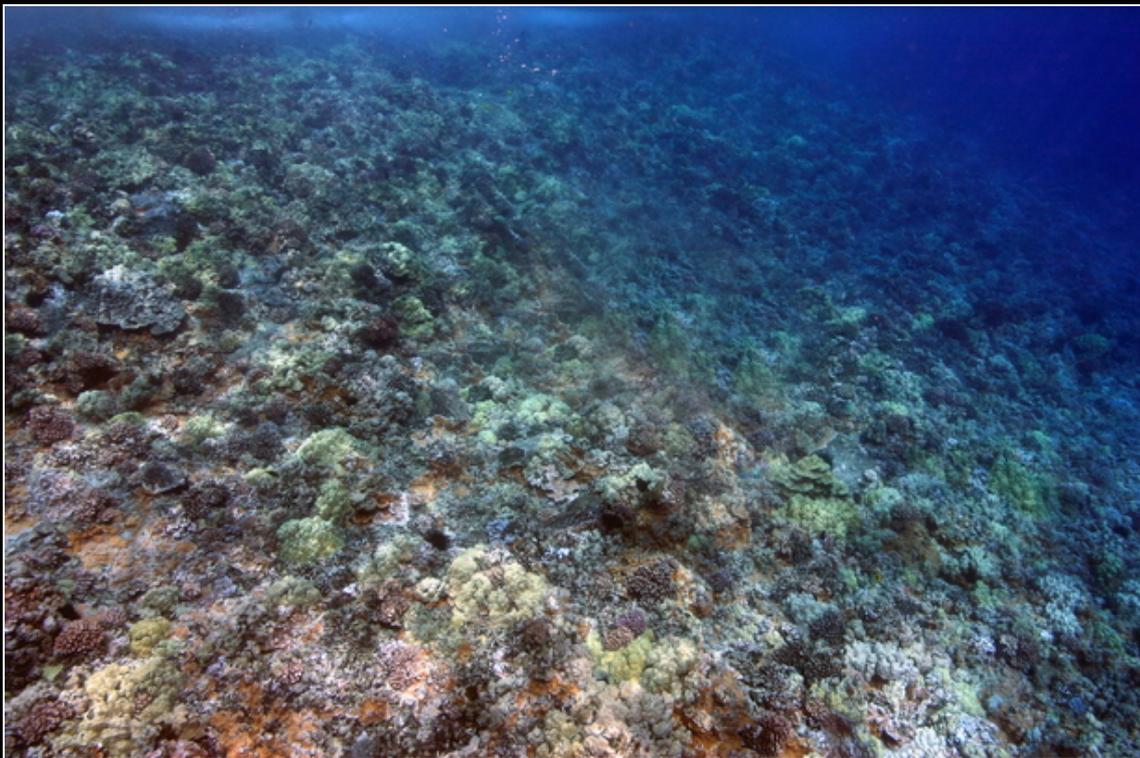
Human Impacts on Coral

- Aquarium/Souvenir Trade
- Overfishing
- Pollution
- Tourism



Hawaiian coral needs your protection

- It has no voice
- Speak up to educate others about our beautiful coral





The End