



Grades 6-8

Corals Reefs: Background Information

1. What is coral - plant or animal?

1. Invertebrates
2. Belong to group (Phylum) CNIDARIA - have stinging cells called cnidocysts or nematocysts which are used to capture prey, have radial symmetry
3. Other cnidarians - jellyfish, anemones
4. Colonial - colonies of thousands of individual coral animals called polyps make up coral structure

2. Two kinds of coral

- Soft coral
- Hard coral - build reefs
 - Polyps take calcium from seawater to make skeleton - we also need calcium to build our skeleton - over time skeletons build up to form reefs
 - Show close-up picture of coral from a magazine or the internet - note cuplike holes in skeleton - polyps extend from these cups

3. Coral reefs

1. Only form in warm, clear water - tropical areas - around the margins of islands and continents i.e. The Great Barrier Reef in Australia
2. Require clear water because of symbiotic relationship with algae - zooxanthellae - which photosynthesize to create food (glucose) which is shared with the coral, also play a role in the production of skeletal material - corals with zooxanthellae grow much faster than those without
3. Corals in turn provide a home and nutrients (from waste products) for the algae - this is a mutualistic symbiotic relationship

4. Three types of coral reefs

- Fringing reefs - develop at margins of landmasses
- Barrier reefs - linear or circular reefs separated from a landmass by a lagoon that forms when an island starts to subside
- Atolls - circular or irregular shaped reefs that surround a lagoon - island is completely submerged

5. Compare tropical waters to our waters

- Our waters are fertile, full of plankton (appear green or brown)
- Tropical waters are clear, sterile - majority of life concentrated around coral reefs - lots of competition for food, shelter, and breeding sites