

Source: From **Save Our Coral Reefs**, an educational manual published by Ocean Voice International, Ottawa, Canada. Used with permission.

55. Questions to Stimulate Discussions and Test Understanding

The answers given here do not include all possible replies. And sometimes they may be wrong for a particular area! Sometimes only partial answers are given. Answers are often bigger than questions!

- 1. Are corals alive, or are they just rock?**
Reef-building corals are live animals with tiny co-op algae in their soft parts.
- 2. Why are the tiny coral-plants in the soft parts of the coral so important?**
The tiny coral-plants in the soft parts of coral are important because they provide four-fifths of the coral's food and energy.
- 3. Why do corals need sunlight?**
The small co-op algae in the coral's soft parts need sunlight and share the sun's energy with the corals.
- 4. What do corals feed on at night?**
At night the corals feed on plankton, using their tentacles.
- 5. How do water currents help corals?**
Water currents carry plankton to the corals, and clean salty sea water.
- 6. Does fresh water kill corals?**
Fresh water kills corals if they are exposed to it for very long. Freshwater flooding or even a heavy rain at low tide can kill corals.
- 7. Why is shore vegetation important to coral reefs?**
Shore vegetation is important to coral reefs because it helps smooth the flow of harmful freshwater onto the reefs and it filters out cloudy water and mud.
- 8. How long do corals live?**
Some corals reach 50, others hundreds or even over a thousand years in age.
- 9. Where are the richest coral reefs in the world?**
The richest coral reefs in the world are in the "Coral Triangle" between the Philippines, Borneo, and New Guinea.
- 10. Do healthy reefs have more species of fishes and invertebrates than sand or mud bottomed areas? Why?**
Healthy coral reefs have more species of fishes and invertebrates than sand or mud bottomed areas because coral reefs provide them with more food and with shelter from predators and waves.
- 11. Name 10 different kinds of sea life that can be harvested from coral reefs.**
Kinds of sea life that can be harvested from coral reefs include: products for the food, pharmaceutical, aquarium and tourist industries through harvest of fishes, molluscs, seaweeds, betang [sea cucumbers], sea urchins, crabs, lobsters, and shrimps. Tourists can also be caught!
- 12. How do coral reefs protect coastal communities?**
Coral reefs protect coastal communities by acting as a breakwater. This weakens storm and typhoon waves, and reduces wave damage.
- 13. Where does the coral sand on our beautiful beaches come from?**
The beautiful coral sand comes from coral reefs. Coral is ground up into sand by parrot fishes, certain molluscs, and storm waves.

14. Why do tourists come to coasts with healthy reefs?

Tourists come to coasts with healthy reefs because healthy reefs have many rich colorful corals of different shapes, active colorful fishes, and many astonishing invertebrates. Healthy coral reefs produce fine coral sand beaches and calm water in which to swim and travel by [boat] behind the protection of the reef. And delicious seafood can be found there too.

15. Name five businesses that benefit from coral reefs.

Businesses that benefit from coral reefs include food fishing, boat making, restaurants, hotels, tourist guides, diving tours, aquarium fish industry.

16. How many metric tons of fishes does a square kilometer of healthy reef produce each year?

How many tons of fishes does a square kilometer of degraded reef produce each year?

A healthy coral reef produces up to 35 metric tons of fishes per square kilometer each year. A degraded reef produces only 5 metric tons.

17. Why are catches of fishes and invertebrates poor on degraded coral reefs?

Catches of fishes and invertebrates on degraded coral reefs are small because such reefs provide less food and little shelter from predators and waves; as the dead coral breaks up there are fewer holes to hide in.

18. Why should one leave some “seed” fishes and shells on reefs?

One should leave “seed” fishes and shells on the reef to produce babies for later catches.

19. Name four sources of cloudy water and mud.

Cloudy water and mud that can harm coral reefs can come from clear-cut logging, farming on steep slopes, lack of stream-side vegetation, removal of trees from the coast, construction right on the coast, removal of mangrove swamps and seagrass beds.

20. What kinds of farm chemicals can harm coral fishes and reefs?

Herbicides and insecticides can harm fishes and corals. Excess fertilizer washed into the sea can encourage growth of harmful seaweed or crown-of thorns starfishes.

21. Name three sources of wastes which are harmful to coral reefs.

Untreated sewage wastes from cities, mine tailings, and factory pollution can harm coral reefs.

22. How far can pollution travel in the oceans?

Pollution of long-lasting substances can travel world-wide in the oceans.

23. Do marine reserves have any advantages for coastal communities?

Marine reserves provide seed fishes, shellfishes and corals for neighboring areas and slowly contribute to better catches. They are also attractive spots for tourists.

24. Is research important in conservation?

Research is needed in conservation. We need to complete the scientific description and mapping of nature and awareness of diversity. We need to know the needs—the ecology and biology of animals and plants, and to understand what ecological services are provided by nature.

Correlation to National Standards from McREL (<http://www.mcrel.org>) :

Life Sciences

6. Understands relationships among organisms and their physical environment

Geography

8. Understands the characteristics of ecosystems on Earth's surface

14. Understands how human actions modify the physical environment

16. Understands the changes that occur in the meaning, use, distribution and importance of resources