

Knowledge Review – ANSWER KEY AWARE – Coral Reef Conservation

Answer the following questions. Your instructor will review your answers with you.

1. Why are divers and snorkelers the natural ambassadors for the aquatic environment?
Divers and snorkelers notice both short and long term changes in the aquatic realm. This intimate familiarity makes them the natural ambassadors for the aquatic environment.
2. Coral reefs are vital marine ecosystems because they:
 - a. Are nursery grounds to 25 percent of known marine species.
 - b. Are home to nearly 33 percent of all known fish species.
 - c. Help maintain biological diversity.
 - d. All of the above.
3. What benefits do coral reefs provide? (choose all that apply)
 - a. Reefs act as coastal barriers protecting islands and coastal communities.
 - b. Reefs attract tourists which boosts local economies.
 - c. Reefs contain many biomedical compounds including anti-cancer agents, anti-HIV agents and antibiotics.
 - d. Reefs are navigational aids for large ships.
4. Corals are *animals* that have a symbiotic relationship with *plants (algae)* called zooxanthellae.
5. True or False. Reefs form differently depending upon local factors, however, the two popular theories include geological subsidence and formation due to changing sea level and erosion.
TRUE
6. What physical factors control and limit coral reef distribution? (choose all that apply)
 - a. Temperature
 - b. Depth
 - c. Rainfall
 - d. Water clarity
 - e. Waves
 - f. Bottom type
7. True or False. Because coral reefs have a highly efficient nutrient recycling system, they produce large amounts of food beyond what's needed by the reef community itself.
FALSE – the amount of biomass that can be taken from a coral reef on a sustainable basis is very limited.
8. Corals constantly *compete (battle)* for space with each other and with other reef residents.

9. Why is grazing so important to reef?
 - a. *It enhances productivity by promoting new algae growth.*
 - b. *It keeps algae growth in check.*
 - c. *It recycles nutrients back to the reef community.*
 - d. *All of the above.*

10. True or False. By 2004, 50 percent of reefs were estimated to be dead, in part due to raised sea surface temperatures causing major bleaching events.
FALSE – estimates are closer to 20 percent

11. What activities may be detrimental to coral reefs? (choose all that apply)
 - a. *Dynamite or blast fishing*
 - b. *Deforestation and overgrazing*
 - c. *Sewage discharge*
 - d. *Coral mining*
 - e. *Destruction of mangroves*
 - f. *Oily runoff from parking lots*
 - g. *Overfishing*

12. True or False. Atmospheric changes that lead to a rise in sea surface temperatures can cause coral polyps lose their zooxanthellae and turn white, or bleach.
TRUE

13. To be successful, reef management must: (choose all that apply)
 - a. *Treat each reef as a separate, independent ecosystem.*
 - b. *Include protection of associated watershed and nearshore communities.*
 - c. *Involve all stakeholders.*
 - d. *Account for the local culture, historical uses and political realities.*

14. How can you promote coral reef conservation? (choose all that apply)
 - a. *Don't buy souvenirs made from coral.*
 - b. *When operating a boat, avoid vulnerable ecosystems and maintain equipment to prevent oil or fuel spills.*
 - c. *Choose dive or tour operators that use mooring buoys rather than anchors, whenever possible.*
 - d. *Select seafood wisely.*
 - e. *Further your education and volunteer to help conservation organizations that monitor coral reef health.*

15. When snorkeling or diving, do not *touch* coral and always be aware of your body's position in relation to the reef.