



# COASTAL CRUSADER QUIZ ANSWERS

**Question 1) Australians use over 20 billion plastic bags each year, many of which end up in our waterways, rivers and oceans. On average, how many years does it take for a plastic bag to dissolve in the ocean?**

- a. 2
- b. 10
- c. 250
- d. 450

**Answer:** 450 years. However, some plastic bags can take up to 1000 years to break down. Once eaten, plastic bags cannot be digested or passed by an animal, so they stay in their stomach, leading to a slow and painful death. After the animal has died, its remains break down and dissolve, however the plastic lives on to be swallowed again and again.

**Question 2) On average, how many human deaths occur each year from shark attacks?**

- a. 1
- b. 10
- c. 20
- d. 50

**Answer:** 1. Over the last 50 years, there have been approximately 60 fatal shark attacks in Australian waters. Considering millions of people swim at Australia's famous beaches each year, that's pretty slim odds. As a comparison bee sting is responsible for 2 deaths/year in Australia. In fact, more people globally are killed by white goods (yes, regular household appliances) or falling coconuts than by sharks.

**Questions 3) In Australian waters alone, hundreds of thousands of sharks are killed by fishermen each year. What is the main reason that sharks are hunted?**

- a. They are considered dangerous and numbers need to be kept low
- b. For their fins
- c. Their meat is valuable
- d. Their teeth are valuable

**Answer:** For their fins. In most commercial fisheries, shark meat is considered low value, however, there is a huge demand for their fins. Shark fins are used for shark fin soup, considered a delicacy in Asia, but also available in Australia, where a bowl of soup can sell for AUS \$300! It is estimated that 100,000,000 (one hundred million) sharks are killed worldwide each year, including Australia, with the vast majority killed just for their fins. Apart from being



beautiful and cool, sharks are top predators, which mean they are very important to control the entire ocean ecosystem. Removing them in such large quantities can cause a whole range of problems in the ocean.

**Question 4) Most beaches are backed by vegetated sand ridges called dunes, which are very important to our coastal environment. Why should we protect and preserve our sand dunes?**

- a. They act as a buffer against wave damage during storms, protecting the land behind them
- b. If dune vegetation is destroyed the sand becomes loose and will be blown inland, gradually burying anything in its path
- c. They act as a reservoir of “spare sand”, which replenishes and maintains the beach in times of erosion
- d. They serve as habitat for many animals, including migrating endangered birds
- e. All of the above

**Answer:** All of the above. Sand dunes are very vulnerable and can be destroyed by natural causes such as storms, cyclones, droughts or fire, or by human interference such as clearing, grazing, vehicles or excessive foot traffic.

**Question 5) Rocky shores are found where the sea meets the land, and provide a home for a diverse range of plants and animals, including seaweeds, barnacles, snails, octopi and anemones (the home of the *Finding Nemo* star, the clown fish). Are anemones...**

- a. Plants
- b. Animals

**Answer:** Animals. Although they are animals, anemones grow in forms which resemble plants. An anemone is a single animal with a sack-like body and tentacles around a single opening. Some are capable of sliding about very slowly. In rock pools and on reefs just off shore, there are many species of anemone.

**Question 6) Penguins only live in the Southern Hemisphere?**

- a. True
- b. False

**Answer:** True. Penguin habitats range from frozen Antarctica to warmer tropical waters as far north as the Galapagos Islands, on the equator. There are 17 species of penguin, with the largest being the Emperor Penguins and the smallest being the Fairy penguins, which are found only in Australia and New Zealand.



**Question 7) Some species of penguin spend up to 75% of their life in the water, including the freezing waters around Antarctica. How do they survive the cold?**

- a. They are insulated by fat
- b. They are waterproof
- c. They have more feathers than other birds
- d. All of the above

**Answer:** All of the above. Penguins have a thick layer of fat to help keep them warm and have more feathers than most other birds - about 70 feathers every 5 square cm. They also produce oil from a gland near the tail, and they use this to coat their feathers to keep them waterproof.

**Question 8) 10 of the hottest years ever recorded were in the last 14 years and the hottest was in 2005**

- a. True
- b. False

**Answer:** True. Global warming is the major environmental challenge facing the world today. Increasing global temperature is expected to cause the sea level to rise, increase the intensity of extreme weather events and change the amount and pattern of precipitation. Other effects of global warming include changes in agricultural yields, trade routes, glacier retreat, species extinctions and increased prevalence of diseases.

**Question 9) The ocean has no impact on the world's temperature.**

- a. True
- b. False

**Answer:** False. Water retains heat longer than land (have you noticed how long your tea remains warm?), and through currents, the ocean distributes heat around the world, making it possible for people to live in Northern Europe for example, where otherwise would be too cold to survive. The ocean is also responsible for producing more than half of the oxygen we breathe through tiny little plants called phytoplankton, that absorb carbon dioxide, the most important gas responsible for climate change.

**Question 10) The Great Barrier Reef is not only the largest coral reef in the world, but the largest living organism too. How is global warming impacting on our coral reefs?**

- a. It has no effect
- b. Reefs thrive in warm temperatures and are expanding
- c. It is killing the reef through coral 'bleaching'
- d. All the water will evaporate and the reef will become dry



**Answer:** Coral bleaching. Small but prolonged rises in sea temperature force coral colonies to expel their symbiotic, food-producing algae, a process known as bleaching. While the dying reefs, which turn ghostly white, can recover from such events, many do not.