



Great White Shark

Description: The Great White Shark is the largest predatory shark, and is probably the most well-known and feared shark. The Great White Shark is gray or bluish above and white below. The largest Great Whites can reach lengths of 22 feet and weigh up to 5,000 pounds. Most are between 13 and 16 feet and weigh 1,500-2,400 pounds. The Great White has massive teeth, which are positioned in rows and serrated. When the Great White attacks, it bites its prey and shakes its head back and forth. The serrated teeth act as a saw and literally tear the victim apart. The Great White Shark often swallows many of its own teeth in an attack.

Diet: The Great White Shark normally feeds on fish, seals, dolphins, porpoises, otters, and turtles. It is thought to locate its prey by electrosense and by smell. Like all sharks, Great Whites have special pores called Ampullae of Lorenzini, which enable them to detect the electromagnetic fields radiated by moving organisms. Great Whites can detect voltage as small as one half billionth of a volt.

Great Whites employ several hunting techniques depending on the prey. Most of the time, the shark will remain still underwater before ambushing its prey from underneath. In the case of hunting some kinds of seals, the impact of the shark is so powerful that it knocks both the shark and the seal clear out of the water. With larger prey such as elephant seals, the shark will simply take a huge bite out of it and wait for it to bleed to death. When hunting dolphins, the shark will attack from above, presumably to avoid detection from the dolphin's echolocation.

Range/Habitat: Great White Sharks are most commonly observed throughout the world's sub-arctic coastal waters, though they likely spend most of their time in the open ocean. Highest concentrations are found in the waters off the coast of South Africa, Australia, California, and Mexico. The Great White Shark is also found in the Adriatic and Mediterranean Seas. They generally prefer water between 54 and 75 degrees Fahrenheit.

Reproduction: A Great White Shark has never been observed giving birth, however pregnant females have been caught. The Great White Shark is known to be ovoviviparous (young develop in eggs within the mother's body). Females give birth to eight or nine pups that are about five feet in length upon birth. Great Whites reach reproductive maturity when the male is about 12 feet long and the female about 13 feet long. It is thought that Great White Sharks live up to 40 years in the wild, but this estimate may be too low.

Shark Attacks: Despite the fear of Great White Sharks, at least in part generated by Steven Spielberg's 1975 movie, *Jaws*, Great White Sharks do not target humans as prey. Most attacks are attributed to mistaken identity. Sharks can easily mistake humans for seals. Many human injuries caused by Great White Sharks are cases of test-biting. If a shark is unsure about a floating object, it often gives it a test bite to determine what kind of object it is. While such bites do little damage to buoys and other objects, they obviously can inflict serious damage on the human body.

1.) Which of the following is least likely?

- A. Finding a Great White Shark in 85 degree (Fahrenheit) water.
- B. Find a Great White Shark hunting a porpoise
- C. Finding a 15 foot long Great White Shark.
- D. Finding a Great White Shark that weighs 2,000 pounds

2.) The maximum weight of MOST Great White Sharks is _____ pounds.

- A. 2,400
- B. 24,000
- C. 5,000
- D. 4,200

3.) Circle all of the following that are normal parts of the Great White Shark's diet.

- A. Humans
- B. Seals
- C. Fish
- D. Dolphins

4.) The _____ are specialized pores that allow a shark to detect magnetic fields of moving organisms.

- A. Electromagnets
- B. Echolocation
- C. Ampullae of Lorenzini
- D. Serrations

5.) What does ovoviviparous mean?

- A. It refers to animals whose young develop outside the mother's body.
- B. It refers to animals that lay eggs
- C. It refers to animals that do not lay eggs
- D. It refers to animals whose young develop in eggs within the mother's body.

6.) You would have something in common with the Great White Shark if you...

- A. located your food by sound
- B. had four brothers and four sisters
- C. lived to be eighty years old
- D. spent most of your time near shore

7.) In which of the following places would you have the best chance to see a Great White Shark?

- A. coastal South Africa
- B. Antarctica
- C. Mississippi River
- D. Mediterranean Sea

8.) Sharks often mistake humans for _____.

9.) Which of the following is NOT true?

- A. Great White Sharks swallow their own teeth during attacks.
- B. Great White Sharks employ different hunting techniques depending on the prey they are stalking.
- C. Great White Sharks often target humans as prey.
- D. Great White Sharks can detect prey by smell or by magnetic field.

10.) Which of the following may or may not be true?

- A. Great White Sharks have serrated teeth that act like saws.
- B. Newborn Great White Sharks are about five feet in length.
- C. Great White Sharks have a life span of 40 years.
- D. The Great White Shark is actually only white on its underparts.