



SeaWorld/Busch Gardens Sharks

4-8 Classroom Activities

The Tooth Will Tell

OBJECTIVES

Students will be able to relate shark tooth shapes to shark prey selection. They will identify the distributions of various shark species.

ACTION

1. Ask students if they think that the size or shape of a shark's teeth is related to its diet. Students work individually or in cooperative learning groups to investigate this question.
2. Distribute copies of the shark tooth illustrations on page 6 and copies of a world map. Students use references to gather information on the listed sharks:
 - basking shark (*Cetorhinus maximus*)
 - blue shark (*Prionace glauca*)
 - great white shark (*Carcharodon carcharias*)
 - horn shark (*Heterodontus francisci*)
 - leopard shark (*Triakis semifasciata*)
 - Pacific angel shark (*Squatina californica*)
 - sandtiger shark (*Carcharias taurus*)

Students find information on each shark species' diet, methods of collecting and eating food, habitat (including temperature, topography, depth, other animals and plants), and distribution.

3. Students create presentations of their findings. Instruct them to cut out tooth shapes (as many as needed) and glue or tape them to the world map to graphically represent the distribution of each shark species. Students can enhance distributions through shading or other means. Have students create map legends explaining their distribution maps.
4. On separate sheets of paper, students list each shark, its diet, feeding habits, habitat, and distribution.
5. As a class, discuss conclusions. Is the size and/or shape of a shark's teeth related to its diet? What else did students discover? For example, is habitat related to what a shark eats?

BACKGROUND INFORMATION

The characteristic teeth of each shark species are adapted to that particular species' diet. The teeth may be serrated or smooth. Most are used for seizing prey, cutting, or crushing. For sharks, platelike, triangular teeth are the most common shape.

Many types of sharks are adapted for bottom feeding. For example, horn sharks (*Heterodontus francisci*) eat bottom-dwelling crabs and clams. The horn shark's pointed front teeth grasp, and its flat, molarlike back teeth crush. Another mechanism some sharks use for collecting food is filter feeding. The basking shark strains plankton from the water. Its teeth are reduced and nonfunctional.

MATERIALS

For each student:

- copy of tooth illustrations below
- copy of a world map
- paper
- colored pencils, crayons, or markers
- glue or tape
- scissors
- reference materials on sharks

From *Sharks! 4-8 Teacher's Guide*,
a SeaWorld Publication



great white shark
(*Carcharodon carcharias*)



sandtiger shark
(*Carcharias taurus*)



horn shark
(*Heterodontus francisci*)



blue shark
(*Prionace glauca*)



Pacific angel shark
(*Squatina californica*)



basking shark
(*Cetorhinus maximus*)



leopard shark
(*Triakis semifasciata*)