

Exploring Sharks, Rays, and Skates

Join us for an elasmobranch exploration at the South Carolina Aquarium! You'll meet some of our cartilaginous creatures as we learn about the differences between sharks, rays, and skates and investigate their amazing adaptations. Together, we'll discover the important role these extraordinary elasmobranchs play in marine ecosystems and why they need to be *protected*, not feared.

Vocab:

- Elasmobranchs – a group of cartilaginous fish that includes sharks, rays, and skates.
- Cartilage - firm, flexible connective tissue
- Adaptations - traits that help an animal to survive (can be physical or behavioral)
- Dermal Denticles - toothlike scales on cartilaginous fish
- Fossil - the remains or impression of an organism preserved in petrified form or as a mold or cast in rock.
- Ampullae of Lorenzini - special sensing organs called electroreceptors, forming a network of jelly-filled pores
- Ecosystem - a biological community of interacting organisms and their physical environment.
- Biomimicry - the design and production of materials, structures, and systems that are modeled on biological entities and processes such as animals

Discussion Questions:

1. Why do we only find fossilized teeth and vertebrae of sharks, not entire skeletons?
2. Pick any animal and identify at least 3 adaptations that it has.
3. *Compare and Contrast*: What similarities and differences do you see in Sharks, Skates, and Rays?
4. Why are sharks important in their environment?
5. How can humans help elasmobranchs and other ocean creatures?

Activity:

Become a *Citizen Scientist*! Join or organize a litter sweep with your class, friends, or family! No matter where you live, plastic can be carried throughout our waterways and end up in our ocean. Plastic can also collect and pollute our communities as well as natural habitats. You can help save wildlife by removing litter from your community and contributing your data to the [Litter-free Digital Journal](#), a project of the South Carolina Aquarium Citizen Science app. The app is available for free download from the App Store or Google Play.