



All about the Rocky Shore

Adaptations

Like organisms in other habitats, rocky shore organisms rely on a combination of adaptations to ensure their survival.

An **adaptation** is a body part or a behavior that helps a living thing survive in its environment.

These adaptations include form, function, size, and coloration, as well as defensive behaviors, breeding techniques, and feeding strategies.

For example, to avoid being washed away by the strong waves, the bat star uses its suction-cupped **tube feet** to grip firmly onto solid surfaces. Also, the striped shore crab will burrow into the sand when the tide is out. This behavior helps the crab to stay cool and moist, as it is out of the sunlight and helps it to avoid predators.

Additional examples of adaptations include thick shells, the ability to retain water, spiny bodies, **camouflage**, **exoskeletons**, **regeneration**, and many more!

Check out the **FISHIN' FOR F.A.Q.'S** sheets to learn about the incredible adaptations that the extraordinary animals & plants of the rocky shore have evolved to overcome their challenges and thrive in an ever-changing environment!

Did you know that each year thousands of students come to experience the natural wonders at Cabrillo Beach Coastal Park! One of the most dynamic **ecosystems** along the California coastline is the rocky shore. This unique **habitat** supports an amazing array of ocean life.

Tidepools

On Cabrillo's rocky shores, there are two high tides and two low tides each day. Twice a day, this dynamic habitat is revealed by the changing tides. When the tide is completely out (at low tide), pockets of water are left behind in the rocks forming small rocky pools. These water-filled pockets are called **tidepools** and retain just enough water when the tide goes out to support an extremely rich community of marine plants and animals.

The abundant collection of marine organisms that inhabits the rocky shore includes: algae, seaweed, mussels, barnacles, snails, sea anemones, sea slugs, crabs, limpets, sea stars, urchins, fish, and many others.

Consequently, the rocky shore **environment** presents these living organisms with challenges that threaten their survival. Some of these extreme conditions involve the waves, the tides and currents, the fluctuation of temperature, salinity, oxygen levels, as well as evading **predators**, competition for space, finding food, and securing a mate.

"What draws me to the sea is the changing light, the changing of temperature, the different conditions, It's just beautiful."

John Olguin
Teacher of Coastal Marine Aquatics



Vocabulary Terms

Adaptation

Camouflage

Ecosystems

Exoskeletons

Habitat

Predators

Regeneration

Tidepools

Tube Feet