

Sea Shore Ecology Assignment



The seashore is one of the ocean's most unique habitats. It is an area of incredible diversity and it displays an almost overwhelming abundance of animals and plants. The sea's edge is the point of union between the land and the sea. The coming together of these two environments forms the seashore. A new and totally different habitat, it hosts a more diverse and more specialized group of organisms than either of its components.

Conditions of the seashore are neither terrestrial nor marine, but instead are a mixture of the two. Seashore organisms have evolved and are still evolving from totally marine creatures, and therefore are not perfectly adapted to land and air conditions.

The changing of the tides exerts unusual demands on seashore life. Typical to a Pacific coast rocky shore, there are three distinct bands of life placed horizontally on the shore. This phenomenon is called "zonation". Zones are relatively stable and may change only slightly from year to year or season to season.

Before beginning your research, make sure you have copies of the graphic organizers for Seashore Assignment #1 and Seashore Assignment #2.

Assignment #1: Research 3 zones of the seashore (Supra-littoral or Spray Zone; Littoral or Intertidal Zone; and the Sub-Littoral Zone). For each type of shoreline indicate:

- where this regions exists on the shoreline
- the abiotic (non-living) environmental pressures (e.g. dehydration etc.)
- the biotic (living) environmental pressures (e.g. air predators)

Assignment #2: Research two types of shorelines; rocky shores and sandy shores. For each type of shoreline indicate:

- how this shore compares to the other in terms of number and diversity of organisms.
- the environmental pressures present in this habitat
- where organisms are found in this environment
- typical organisms found in this habitat and some of their fascinating adaptations needed for survival.

Helpful Links

- [Canada's Pacific Shore - Parks Canada](#)
- [OceanLink | Biodiversity - The Intertidal](#)
- [OceanLink | Biodiversity - Marine Zones](#)
- [Pacific Northwest Coast Intertidal Zones: Diversity of Tidepool Life Changes as Low Tide Ebbs](#)
- [Ocean Dead-Zones May Be Linked To Global Warming](#)
- [Beach](#)
- [BBC - Intertidal Zone](#)
- [Tide Pools - Human Impact & Conservation](#)
- [Lateral Lines: Tide Pools Part 3: Human Visitors and Their Usage | Advanced Aquarist's Online Magazine](#)
- [Sandy Shores - Teacher Background](#)
- [Soft-Bottom Shores](#)
- [SIMoN -- Rocky Shores](#)
- [Climate change impacts on intertidal ecosystems](#)