

**Habitat:**

The rocky shores of the Pacific coast have some of the world’s richest intertidal life. These rocky shores are usually layered rock leading up to steep cliffs. The changing tide levels often form tidepools which are home to a huge diversity of marine invertebrates. These are regions of constant and radical change. During high tide the animals and plants are underwater, but during low tide they are exposed to pounding waves, drying wind, rain that dilutes **salinity (the amount of salt)**, and air, which can be very hot or extremely cold. In addition to these stresses, intertidal animals are also exposed to **predators**, such as sea gulls, sandpipers, and, unfortunately, humans. It’s a tough life, and in order to survive, these intertidal dwellers have adapted to these kinds of adversity.

**Example adaptations:** Some of these might not be good adaptations to have in this environment.

- Hard shells
- Fins
- Sticky feet
- Layer of blubber (fat)
- Pinchers
- Complex eyeballs
- Watertight shells
- Large mouth full of sharp teeth

**Essential Question:** What adaptations do you expect to see of organisms living in the rocky shores of the Pacific Coast?

**Part 1: Claim**

A simple statement that directly answers the claim - you should list at least 2 different adaptations here.

**Choose a sentence frame to fit your Claim:**

- *I predict... in the ...*
- *In this habitat \_\_\_\_\_ is a good adaptation.*
- *I would expect to find organisms with \_\_\_\_.*

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## Part 2: Evidence

Use the reading to describe the environmental conditions that the organisms have to deal with. Each adaptation you listed in your claim should have a different environmental factor it is helping with.

**Choose a sentence frame to fit your Evidence:**

- *According to the reading, one challenge of the... is...*
- *On line \_\_\_ of the reading, it says that the habitat....*
- *When the reading states "\_\_\_\_\_", it means....*

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## Part 3: Reasoning

Describe **how** the adaptations from your claim will help an organism survive and do well in this environment. It is **not** just saying the adaptation is good for this environment.

*(Example: Large lungs are useful for a cheetah in the savannah because they allow the cheetah to use much more oxygen at a time making it possible to run quickly so it can catch prey that would be able to escape a slower moving predator. Gills, on the other hand, would not be necessary for the cheetah because gills are not specialized for getting oxygen from the air.)*

**Choose a sentence frame to fit your Reasoning:**

- *Due to the fact that the reading says.... I believe that \_\_\_ is a good adaptation for an organism to have, because...*
- *\_\_\_\_\_ is useful for dealing with \_\_\_\_\_, because...*

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