

Sonoma County 4-H Wildlife and Natural Science Proficiency

Level II - Producer

The proficiencies for this level for this year, 2014, are related to the study of the Rocky Intertidal Areas on the Sonoma Coast.

Physical Factors (abiotic)- in general, environmental factors can be divided into living (biotic) and non-living (abiotic or physical) factors. It is very important to keep in mind that all living things depend on the non-living environment. Without energy (primarily from the sun), water, air, minerals, and nutrients, life as we know it on Earth wouldn't exist.

Rocky Intertidal habitat – the area between the lowest low tides and the highest high tides. This is where tide pools form.

Zonation – the four tidal zones which are differentiated by their exposures during different tidal periods and affected by wave action and the contours of the beach/coast. Name the four tidal zones on the rocky coast.

Indicator organisms (biotic) – the abiotic factors of a place, in combination with biotic factors such as competition and predation, determine which organisms are able to live there. Name two organisms found in each zone.

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Organisms that don't photosynthesize, such as animals, must obtain their energy from the food that they eat. They are called consumers. Consumers are divided into three groups:

- _____ Mostly eat plants.
- _____ Mostly eat other animals.
- _____ Eat both plants and animals.

Explain the differences in teeth between carnivores and herbivores.

Share what you know about the location of the eyes between predators and prey.

There is great diversity of life in the intertidal area or in any other ecosystem. What causes that diversity?

If a characteristic helps an organism to survive, it is called

_____.

Draw a picture of a food chain that is found at the seashore.

Besides tide pools, name at least two other microhabitats that can be found within the rocky intertidal area.

1.

2.

Choose an animal of your choice and write a report on it. Give a presentation to members of the group with visual support (posters, video, etc.).

Extra credit: define these terms

Eutrophication

Exoskeleton

Bioluminescence

Metacyst

Radula

Sedimentation

Limiting factor

