

Name: _____

Date: _____

INTERACTIONS IN A COMMUNITY

We have talked about producers and consumers, predators and prey, as well as herbivores, omnivores and carnivores. Today we need to add a few new words to our list:

Organism – a single living thing. Ex. A dog

Species – a type of living thing. Ex. Dogs

Community – a group of interacting species sharing a habitat.

Now, use those new words to make sense of the paragraph below.

We have discussed, in detail, how organisms in a community rely on one another for energy. The sun gives producers energy, which is distributed amongst the consumers throughout the community. However, this is not the only way that organisms interact. The most common way for organisms from different species to interact is for one to eat the other, but in some cases the interaction can be beneficial to both. Let's look at some examples:



A clownfish lives in a sea anemone. The sea anemone is an organism that injects poison into small fish and other animals that come near it. However, the clownfish is immune to the poison. This allows the clownfish to hide from predators that would be killed if they entered the sea anemone. The sea anemone also benefits from this relationship. While the clownfish is hiding, it eats any small animals that could harm the anemone, and it also helps to clean the sea anemone.

The red-billed oxpecker and the impala also share a special relationship. The red-billed oxpecker will land on the impala and feed from him. Now, this is not like a mosquito feeding on an animal, the bird is actually feeding on ticks that are sucking blood from the impala. In this case the impala gets rid of its pests, and the red-billed oxpecker gets a good meal.



In the chart below make a definitions page of all the words we have learned so far for our unit.

Habitat	<u>A place where a plant or an animal lives.</u>
Organism	<u>A single living thing.</u>
Species	<u>A type of living thing.</u>
Community	<u>A group of interacting species sharing a habitat.</u>
Producer	<u>Plants. Organisms that produce their own food.</u>
Consumer	<u>Animals. Organisms that consume food.</u>
Predator	<u>Animals that hunt and eat other animals.</u>
Prey	<u>Animals that are hunted and eaten by other animals.</u>
Herbivore	<u>Animals that eat only plants.</u>
Omnivore	<u>Animals that eat both plants and other animals.</u>
Carnivore	<u>Animals that eat only other animals.</u>

Look at the picture. Explain the relationship that exists between the two organisms. Which species benefits (or do they both)? Explain the benefits to the whole community of this interaction.



The relationship between a bee and a flower is one in which both species benefit. The bee flies from flower to flower collecting nectar the bees use the nectar to make honey, and to get energy. In collecting the nectar, bees come into contact with pollen, which gets stuck to them. When the bee flies to a different flower, the pollen rubs off on the pistil of the next flower, which pollinates the flower. The flower is benefiting because it is able to reproduce, and the bee is benefiting because it gets energy. This interaction also benefits the rest of the community because the flower (and other plants) is what provides all animals with oxygen and energy. Without the plants, and the process of pollination, all of the animals would die. If all of the animals died, then eventually the plants would die as well (because they would not be pollinated, or they would run out of carbon dioxide).