

Symbiosis

Community Interactions

What is the definition of a community?



Students, write your response!

Community Interactions

- **Community - an assemblage of different populations that live together in a defined area**
 - In communities, populations live close together
 - Therefore, populations within a community interact with one another in many different ways

Community Interactions

- Predict what types of interactions the populations in the picture have with one another.



Students, write your response!

Community Interactions

Look Closer: What type of interaction is taking place?



Students, write your response!

Community Interactions

The oxpecker lands on the zebra or gazelle and eats ticks or other parasites that live on the animal's skin.



Community Interactions

- The interactions between the oxpecker, zebra, and gazelle are examples of a **symbiotic relationship**.



Symbiosis

- Symbiosis is any type of a **close and long-term biological interaction between two different organisms.**
 - This interaction or relationship may benefit both organisms or only one of them
- There are three main types of symbiosis:
 1. **mutualism**
 2. **commensalism**
 3. **parasitism**

Mutualism

- In mutualism, **both species benefit**
 - ***Example: The Egyptian plover and the crocodile***
 - The crocodile lies with its mouth open.
 - The plover flies into its mouth and feeds on bits of decaying meat stuck in the crocodile's teeth.
 - The plover eats a meal and the crocodile gets his teeth cleaned.



Commensalism

- In commensalism, **one species benefits and the other is unaffected**
 - *Example: Grey whale and Barnacles*
 - Barnacles attached to the skin of a grey whale feed on food in the water that passes over them as the whale swims.
 - Barnacles perform no known service to the whale, nor do they harm it.
 - Barnacles clearly benefit from the constant movement of water.



Parasitism

- In parasitism, **one species benefits and the other is harmed**
 - *Example: Deer tick*
 - The deer tick attaches to a warm blooded animal and feeds on its blood.
 - The tick benefits from eating the animal's blood.
 - Unfortunately, the animal suffers from the loss of blood and nutrients and may get Lyme's disease or another disease.



Symbiosis

Complete the table using the words:
benefits, harmed, or unaffected

Relationship	Species A	Species B
Mutualism		



Students, draw anywhere on this slide!

Symbiosis

Complete the table using the words:
benefits, harmed, or unaffected

Relationship	Species A	Species B
Mutualism	Benefits	Benefits
Parasitism		



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Symbiosis

Complete the table using the words:
benefits, harmed, or unaffected

Relationship	Species A	Species B
Mutualism	Benefits	Benefits
Parasitism	Benefits	Harmed
Commensalism		



Students, draw anywhere on this slide!

Symbiosis

Complete the table using the words:
benefits, harmed, or unaffected

Relationship	Species A	Species B
Mutualism	Benefits	Benefits
Parasitism	Benefits	Harmed
Commensalism	Benefits	Unaffected