

**COMMUNITY  
INTERACTIONS &  
SYMBIOSIS**

**ECOLOGY DAY 10**

WU:

date

● **Community Interactions**  
EQ

Teacher example	Student example		
Mutualism			
Parasitism			
Commensalism		Summary:	

# WARM UP: TOP OF PAGE (LEFT SIDE)

- Give an example of a community:
  - An assemblage of different populations that live together in a defined area



# ESSENTIAL QUESTION:

- How do communities interact yet still stay viable (able to survive)?



Right side

Summarize in your own words

# COMPETITION

- In any community, there is more than one kind of organism attempting to use various essential resources
- When organisms attempt to use the same limited ecological resources in the same place at the same time, competition occurs
- Competition can occur both among members of the same species, as well as between members of different species



right side

# COMPETITIVE EXCLUSION PRINCIPLE

- Direct competition between different species almost always produces a winner and a loser—and the losing species dies out
- ***Competitive exclusion principle*** states that no two species can occupy exactly the same niche, in exactly the same habitat, at exactly the same time
- Instead of competing for resources, species usually divide them

# THINK-PAIR-SHARE

- Give an Example of a Community
  - Talk to your tabletop, be ready to share-

# SYMBIOSIS

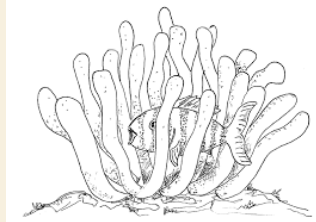
- Any relationship in which two species live closely together is called ***symbiosis***
- There are three ways in which symbiosis can occur
- ***Mutualism*** in which both species benefit from the relationship
  - *Ex: Clownfish live among the sea anemone's tentacles and protect the sea anemone by chasing away would-be attackers*
- ***Parasitism*** in which one organism lives on or inside another organism and harms it
  - *Ex: tapeworms living in the intestines of mammals where they absorb large amounts of their host's food*
- ***Commensalism*** in which one organism benefits and the other is neither helped nor harmed
  - *Ex: barnacles attached to the skin of grey whales; barnacle benefits from the constant movement of water and the food particles in it; the whale is not harmed but the barnacle is fed*



Teacher Version

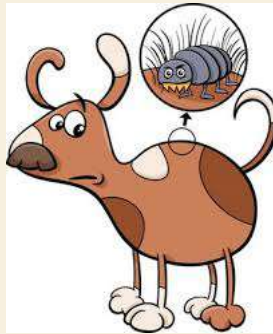
Student Version: Research other examples

Mutualism:  
Clownfish &  
sea anemone  
Benefits: Both



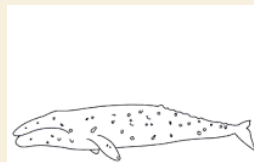
Mutualism:  
Benefits:

Parasitism:  
Fleas on dogs  
Benefits flea;  
harms dog



Parasitism:  
Benefits  
Harms

Commensalism  
Barnacles on whales  
Benefits barnacles;  
doesn't bother whale



[WeDrawAnimals.com](http://WeDrawAnimals.com)

Commensalism  
Benefits  
Doesn't bother

<https://www.youtube.com/watch?v=doB6fyzoO>  
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