

Motivation Station: Scientific Fact

Roundworm parasite species are estimated at over 50,000, but only 15,000 have been identified. Roundworms cause harm and disease to large numbers of animals in a wide variety of ecosystems. The first recorded infections due to roundworm parasites date back to 2700 BC.

After this lesson I will be able to:

- **Describe** producer/consumer, predator/prey, and parasite/host relationships as they occur in food webs within marine, freshwater, and terrestrial ecosystems.

Descriptive Investigations

Activity 1: Relationships Among Organisms

Organisms interact with one another in ecosystems to survive and reproduce. Food chains are the sequences that trace food energy in an ecosystem from producers to consumers. Every feeding relationship in an ecosystem cannot be described by individual food chains. Food webs consist of a system of overlapping and connecting food chains within an ecosystem. Investigate each role, describe its niche and relationships to other organisms, and give an example of each type of relationship.

Organism	Niche	Relationship	Example
Producer		producer/consumer	
Consumer			
Predator		predator/prey	
Prey			
Parasite		parasite/host	
Host			

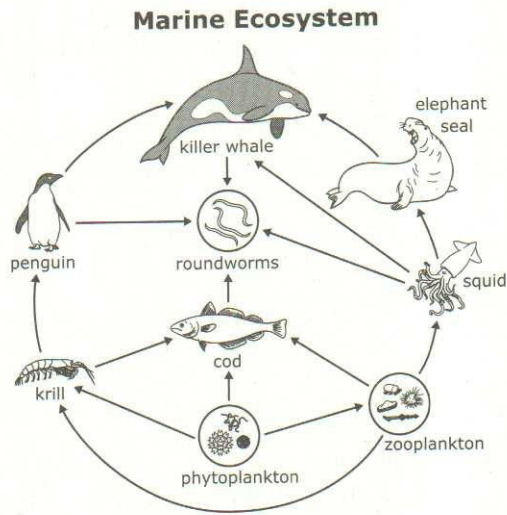
What characteristic do predators, consumers, and parasites have in common?

What characteristic do prey, producers, and hosts have in common?

Activity 2: Relationships Within an Ecosystem

Examine and interpret the food webs below to complete the table. Identify three examples for each relationship from the marine, freshwater, and terrestrial ecosystems.

Organism Relationships



Producer/Consumer _____

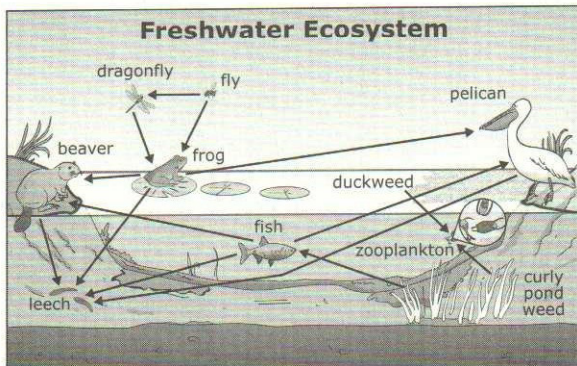
Predator/Prey _____

Parasite/Host _____

Producer/Consumer _____

Predator/Prey _____

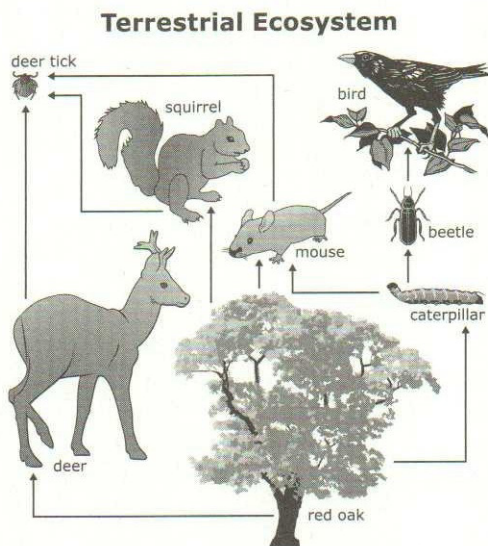
Parasite/Host _____



Producer/Consumer _____

Predator/Prey _____

Parasite/Host _____

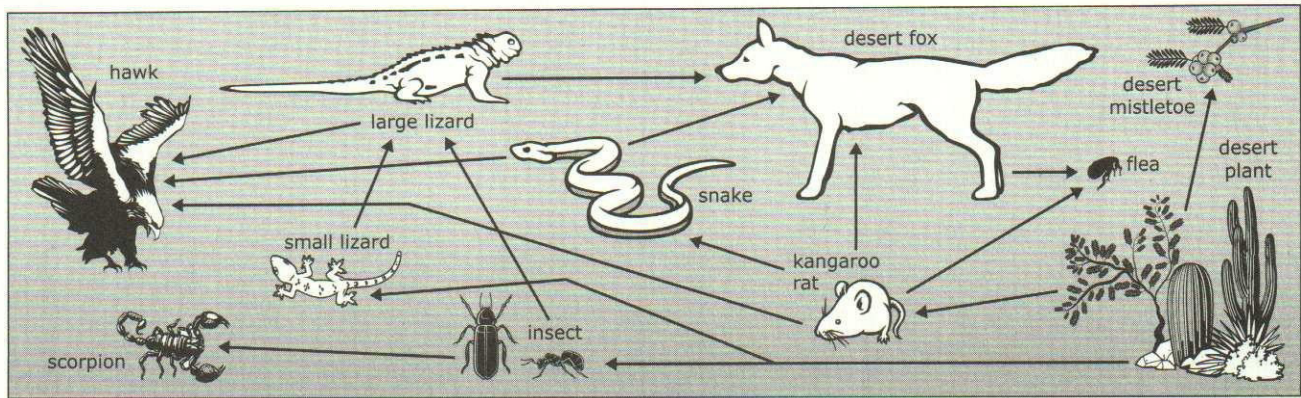


Producer/Consumer _____

Predator/Prey _____

Parasite/Host _____

Relationships among Organisms in a Desert Ecosystem



Identify three producer/consumer relationships in the desert ecosystem. _____

Identify three predator/prey relationships in the desert ecosystem. _____

Identify three parasite/host relationships in the desert ecosystem. _____

Compare and contrast the relationship of desert foxes and snakes with the relationship of kangaroo rats and desert plants.

What is a limitation for the desert ecosystem food web? _____



Parent Activities

1. Help your child identify each relationship in the desert ecosystem.
2. Discuss how organisms obtain energy from the ecosystem.
3. Discuss limitations of this model.

