

Five Relationships-Naturally

7th Grade

Summary: *students will be introduced to various types of relationships in the animal and plant kingdom.*

Objectives

Students will:

1. Understand that many animals are involved in relationships that affect their survival
2. Learn the importance of basic types of relationships in the animal world
3. Be able to describe three types of relationships

Background Information

Animals have to exist in a world where survival is a daily struggle. Many organisms have evolved relationships with other organisms. These relationships may be beneficial to both organisms, beneficial to one and not affect the other at all, or be detrimental to one of the organisms.

The five types of relationships represented in this activity are:

Mutualism- Both species receive some benefit

Commensalism- One species benefits, other not affected

Parasitism - One species benefits, the other harmed

Competition- Use of same resource by two species

Predation- Predator-prey relationship

Materials

- ✓ 4 copies of the **Relationship Card Types** (cut apart- one set for each of 4 groups)
- ✓ 4 copies of the **Paired Species Card Set** (cut apart- one set for each group)

Activity Procedure:

1. Begin lesson with describing the five types of relationships: predation, competition, mutualism, commensalism and parasitism.
2. Explain to students that they are going to get a set of cards that have the names of the types of relationship on them. A second set of cards will have two organisms named on them, representing a type of relationship.
3. Divide class into four groups and distribute a complete set of relationship types and a set (24 cards) of the paired species to each group.
4. The students, working in their groups are going to match the paired species to the type of relationship they represent.
5. Ask students to explain why they matched up the species pairs to a specific relationship i.e. cleaning shrimp and fish to mutualism (shrimp picks parasites off fish- shrimp gets food, fish gets cleaned of parasites).

6. Once all the paired species cards have been matched, review any relationships matches they need discussion (see Answer Key).
7. Review that relationships can be beneficial, detrimental or neutral to both organisms involved, and that these are only a sample of the many relationships present in the natural living world.
8. Ask students to come up with additional examples of relationships between organisms that they can think of.

Florida's Next Generation State Standard

SC.7.L.17.2 Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.

ANSWER KEY

MUTUALISM

Acacia tree and ants
Brain coral and algae
Fruit bat and flower
Plover and crocodile
Sea anemone and clownfish

COMMENSALISM

Air plant and tree
Antelope and Marabou stork
Cattle egret and Cape buffalo
Shark and remora
Vampire bat and cow

PARASITISM

Dog and ticks
Lamprey and fish
Lice and humans
Tapeworm and cat
Tree and strangler fig

COMPETITION

Hyena and lion
American alligator and Burmese python
Australian pine and scrub pine
Marine toad and leopard toad

PREDATION

Agouti and Brazil nut
Arctic fox and lemming
Sea star and sea scallops
Spider and fly
Wild hunting dog and gazelle

Note: Some of the species pairs might represent more than one type of relationship, depending on interpretation. Have students discuss their reasoning for this.

MUTUALISM

Cooperative relationship-
both species receive some benefit

COMMENSALISM

One species benefits, the other not affected

PARASITISM

One species benefits, the other harmed

PREDATION

Predator-prey relationship

COMPETITION

Use of same resource by two species

*Acacia tree
& ants*

*Agouti (large rodent)
& Brazil nut*

*Air plant
& tree*

*American alligator
& Burmese python*

*Antelope &
Marabou stork*

*Arctic fox
& lemming*

*Australian pine
& scrub pine*

*Brain coral
& algae*

*Cape buffalo &
Cattle egret*

*Fruit bat
& flower*

*Hyena
& lion*

*Lamprey &
bass fish*

*Lice
& humans*

*Marine toad
& leopard toad*

*Dog
& ticks*

*Plover
& crocodile*

*Sea anemone
& clownfish*

*Sea star
& sea scallops*

*Shark
& remora*

*Spider
& fly*

*Tapeworm
& cat*

*Tree &
strangler fig*

*Vampire bat
& cow*

*Wild hunting dog
& gazelle*