

Animals of the Chihuahuan Desert

Act It Out: Predator vs. Prey



Being an animal in the Chihuahuan Desert is no easy task. It means that you have to hunt for your own food if you want to survive. This results in the predator-prey relationship. This relationship is based on the interactions between two species where one animal is the hunter (predator) and the other animal is the hunted used by the hunter as a food source (prey). There are many different examples of predator-prey relationships and many different scenarios that can affect this relationship. This activity focuses on some of the predator-prey relationships that can be found between animals that live in the Chihuahuan Desert.

Some examples of the predator → prey relationships:
(Write these on the board so students can see them)

Western diamondback → Gambel's quail
roadrunner → Western diamondback
coyote → desert cottontail
mountain lion → white-tailed deer

Materials Needed

- Writing instrument
- Scissors
- Green cardstock
- Plain printer paper

See [Resource File 1: All About the Animals](#) for the background information on the animals involved in these predator-prey relationships.

Tell students: In this activity, we will learn about the predator-prey relationship. In this relationship one animal is the hunter (the predator) and the other is the hunted (the prey). There are many different combinations of the predator and prey, as you can see, but in this activity we will explore only the predator-prey relationship between the coyote and the desert cottontail. You will be play acting as coyote and desert cottontails.

Set Up

****This is an active game that will require a lot of room. To see video of this game in action and know what kind of spacing is needed, go to <https://betterlesson.com/lesson/631543/predator-and-prey-act-it-out>.**

1. Designate three areas in the classroom to play this game.
 - One area will be used as “the feeding spot” where the desert cottontails will go to retrieve their plants.
 - One area will be the coyote shelter.
 - One area will be the shelter for the desert cottontails.
2. Trace and cut pieces of green cardstock in the shape of plant leaves. There needs to be enough leaves cut so that each student playing a desert cottontail can have at least three.

Activity Procedure –

1. Instruct students on the scenario and show them the designated areas.
2. Name a small portion of the class as coyotes (predators) and the larger remaining number of students as desert cottontails (prey). There should be about a 3:1 ratio of rabbits to coyotes.

3. Have the coyotes go to their hideout and the rabbits go to theirs.
4. Put the leaves in the middle of the room where both the rabbits and the coyotes can see. Tell the student rabbits that their food is the leaves while the coyotes' food is the rabbits.
5. This game is played similarly to tag so for everyone's safety it is important to move obstacles out of the way of both the rabbits and the coyotes getting to the leaves. This game works best if the kids aren't so far away that they have to run on two legs. Encourage the students to play this game at a crawl. This will prevent injury and will use up a smaller portion of your classroom.
6. Give the desert cottontails a short head start where they can crawl to the feeding spot. Their goal is to retrieve three pieces of plant material.
7. After the cottontail's head start, tell the students who are the coyotes to chase after the desert cottontails and gently tag the desert cottontails. If a rabbit is tagged, they are out. They've been "caught." The coyotes are only able to tag the desert cottontails while they are going from their shelter to feeding hole or vice versa. If a cottontail has gotten back to their shelter, the coyotes can't get to them.
8. At the end of this round, all the desert cottontails that were tagged must sit out the next round since being tagged represents being eaten by a coyote. As long as each coyote was able to tag at least one desert cottontail then they can continue on to the next round.
9. Have students repeat this for a second or third round and the students will begin to notice the desert cottontail population begin to diminish significantly, while the coyote continue to do well for themselves.
10. After all the rabbits are out, have them reflect through discussion or write down in pairs observations they made about the relationship between predator and prey.
11. Several different scenarios can be created to provide different perspectives of how that scenario affects the predator-prey relationship. Some examples of different scenarios could be not having enough plant material for the prey, a larger/lesser number of coyotes/desert cottontails.

Follow up questions:

1. What were some of the advantages/disadvantages of the animals they were pretending to be?
2. What did your animals experience in the different scenarios?
3. What did you begin to notice when there were a smaller number of animals in the prey group?
4. What did you learn about the predator-prey relationship?
5. What other scenarios can you think of that would affect the predator-prey relationship?