

Predator & Prey

Materials: Large playing area with clear borders, **food cards** (paper cards that are labelled) sponge, face paint (optional), whistle (mark times)

Procedure: (Direct Experience) Predator and prey is a food chain game that can last upwards of an hour and requires a minimum of 15 students. Before the game is played the leader must hide food- cards in the playing area. Each food card is marked with a number and has the word FOOD written on it. All the food cards marked with number 1 are placed in one pile, all the food cards marked with number 2 are placed in one pile etc*. The piles are not hidden but spread evenly throughout the play area in plain view. The players can have their faces painted to represent the animal or role that they are playing in the game.

Gameplay:

1) **On 'GO' the prey enters the game.** They are 'herbivores' and are given 15-20 minutes to look for the food cards, which represent plant food and look for hiding spots that they will later use to avoid the predators. When a prey finds a food-card pile, they can take one card from that pile. For example, If there are 8 food-card piles, a prey could have a maximum of 8 food cards, numbered 1 through 8.

2) **After the allotted time, the predators will enter the game.** Predators cannot pick up a food- card from the piles, instead, they must collect food by successfully hunting their prey, which they do by chasing and tagging them. When a prey is captured, they give one food card to his or her capturer. The prey is then given a grace period of one minute to find a new hiding spot. This means that if a group of predators works together, only the predator that tags the prey gets a food card. It does not matter which food card is given to a predator, which means that they could end up with any combination of food cards. Predators are given 15 minutes to hunt before the next stage of the game.

3) **'Disease' comes next.** The 'disease' is played by one student and is neither a predator nor a prey but negatively affects both populations. The 'disease' will attempt to capture food cards from both groups, by hitting them with a wet sponge. A successful hit earns the disease one food card. The disease is 10 minutes before the next stage.

4) **Finally the hunter enters the game, played by one student.** The hunter cannot be predated, is not affected by disease and 'outs' his or her prey by sight. If the hunter sees a predator or prey, they will simply shout "bang" and "shoot" their quarry. The predator or prey that has been shot must then give one card to the hunter. The hunter is only in the game for 10 minutes. At this time the game is finished. Blow the whistle to alert the players that the game is finished.

*If at any point a predator or prey is tagged, hit by the disease sponge, or "shot" by the hunter and doesn't have a food card left, they are dead and return to the starting location.

* Print about 7 piles of 6 cards, and number each in the piles 1-6. These numbers should be adjusted depending on how many players. You want enough so that each hare has at least one card from each pile.

Hints, tips and tricks:

- Begin with a talk on the meaning of 'food cards', 'predator', 'prey', 'disease', and 'hunter' in this scenario. Food cards represent 'energy'; how does that translate in the food web? What are the main goals of a prey animal? Why does a disease kill an animal but not the hunter?
- A good play area is clearly and naturally defined. A couple of trees surrounded by a field is a good example but could be as straightforward as using the entire schoolyard. Just make sure there are lots of good hiding spots and that the players know the boundaries.
- It is important to have more prey than predators. A good ratio is 2 to 1. It's also important to have the correct number of food cards. A simple rule of thumb is to have one pile of food cards per prey and one card in each pile per prey. For example, if you have 8 prey, you should have 8 food-card piles, each with 8 cards.
- Remind the students that it is a game. The play can get intense, especially near the end, so they must take care of one another and err on the side of caution, rather than competition. And remind them to be creative and find their ways of surviving. Teamwork and sharing of resources, even between natural enemies, can happen when the threat of disease or overhunting is present.
- Finally, discuss the results with the class. What was it like to be a prey? What were the challenges? What strategies worked? The children will have real-life experiences that may change the way they think about nature.

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