

Oh Deer!

This activity requires students to do a bit of running around. Warn them of this so the day before, so they can wear appropriate clothing and shoes. The activity simulates the boom and bust cycles of populations, which result from variations in habitat. In the activity, students will represent deer, as well as the habitat of the deer.

Procedure:

1. Take the class to a large enough area to line up all of the students on two lines, ten yards apart. A field works well, and of course a football field has lines, which are ten yards apart.
2. Number the students one through four.
3. Send the “ones” to stand on one of the lines, and all of the remaining students (the “twos,” “threes,” and “fours”) to stand on the other line.

The “ones” will represent deer, while the “twos,” “threes,” and “fours” represent habitat. The deer need food, water, and shelter in order to survive a year in the woods.

Tell the deer that they will each seek only one of those components of their habitat during each “year” of this simulation.

4. Instruct the deer and the habitat to turn their backs on one another.

Tell the students to now decide upon a component of the habitat to seek or represent. The “deer” will seek that component of the habitat, while the “habitat” will represent that component of the habitat.

5. The deer and the habitat decide simultaneously, which component of the habitat they will seek or represent. Students “display” with their hands as follows:

To display “food” the student places their hands on their stomach.

To display “water” the student places their hands over their mouth.

To display “shelter” the student places their hands, palms together, over their head.

6. Count to three at which time the two lines turn to face one another.
7. The habitat stays on their line, while the deer move toward the habitat seeking the component represented by their hand position.
8. A deer finding and “capturing” the component they seek represents a successful year in the woods, and they “reproduce” by bringing the student who represented the habitat back with them to the “deer line.” Only one deer may take back a component of the habitat. If a deer fails to find the habitat component they sought, they “die,” becoming a part of the habitat and remaining on the “habitat line.”
9. Repeat steps 4-8 until 20 “years” have passed. Each year record the number of deer.

Note: Occasionally the students representing habitat will conspire to all be the same component, thereby “killing” all deer not seeking that component. Don’t discourage this behavior; explain that the habitat may have suffered a drought, famine or fire, which resulted in a lack of water, food or shelter.

10. Upon returning to the classroom, write the data on the board, and instruct the students to copy the data.

Homework:

1. Plot the deer population vs. the year. Connect the points on the graph.
2. Predict how the population of a predator would change from year to year, and draw your prediction on the graph. Be sure to clearly differentiate the two lines.
3. Explain how a predator could be introduced into this simulation.