



PE Activity: Caterpillar movement

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Aims

- In this investigation you are going to see how the arrangement and position of food plants in a habitat affects how long it takes to reach a plant that can be eaten.
- For this activity:
 - ❖ One pupil will be a time keeper, and use the PE activity work sheet to record the time each “caterpillar” takes to reach the food plant
 - ❖ The other pupils in the group will pretend that they are a hungry caterpillar that needs to find a food plant as fast as they can before a predator finds them
 - ❖ There are 3 exercises. The aim of each exercise is to find the food plant that the caterpillar needs to eat as fast as possible, and to find out whether it was faster for caterpillars to find their food plant in either habitat 1, 2 or 3.

Exercise 1: Habitat 1

- Place one cone at each end of the activity space, positioned so they are in a straight line opposite one another
- The first pupil (caterpillar) will stand at the start cone ('X' which represents a plant with no leaves left to eat).
- When the time keeper shouts 'go!' and starts the stopwatch, the caterpillar will run as fast as they can in a straight line directly to the cone that represents the new food plant.
- The caterpillar reaches the cone and touches it, and then turns and runs back to the start cone
- The time keeper will stop the stopwatch when the caterpillar returns to the start cone, and record the length of time that it took for the caterpillar to complete the exercise on the PE activity work sheet
- Repeat this for each of the other caterpillars in the group.



Exercise 2: Habitat 2

- As described under exercise 1, the time taken for each of the pupils to run between two cones will be recorded by the time keeper.
- But this time, half-way between the start and end cones another cone or marker will be used to pretend that there is a 'hill' or some other obstacle in the way, that the caterpillar will have to climb.
- When the pupils reach this 'hill' they will stop and pretend to climb a hill by doing 20 star jumps followed by 20 hops on one leg. This will be followed by stopping to stand still and to slowly count to 10 (a short rest at the top of this hill). Then to pretend that they are climbing down the hill, the pupils will do 20 star jumps followed by 20 hops on one leg.
- They will then continue to run to the new food plant cone, touch the cone, and run straight back to the starting cone.
- The time keeper will stop the stopwatch and record the time it took for the pupil to complete the exercise.
- Repeat this for each of the other caterpillars in the group.



Exercise 3: Habitat 3

- As described under exercise 2, the time taken for each of the pupils to run between two cones will be recorded by the time keeper.
- But this time, half-way between the start and end cones another cone or marker will be used to pretend that there is food plant that cannot be eaten (cone 1). Two more cones (2 and 3) will be placed on either side of cone 1, but adjacent to cone 1 and positioned far enough away to enable the pupils to run between them.
- This time, each caterpillar will run from the start point to cone 1. From cone 1, the caterpillar will run to cone 2 and back to cone 1, two times.
- After touching cone 1, the caterpillar will then run to cone 3 and back to cone 1, two times.
- From cone 1 the caterpillar will then run to the new food plant cone, touch it and then run straight back to the starting food plant.
- Repeat this for each of the other caterpillars in the group.

