

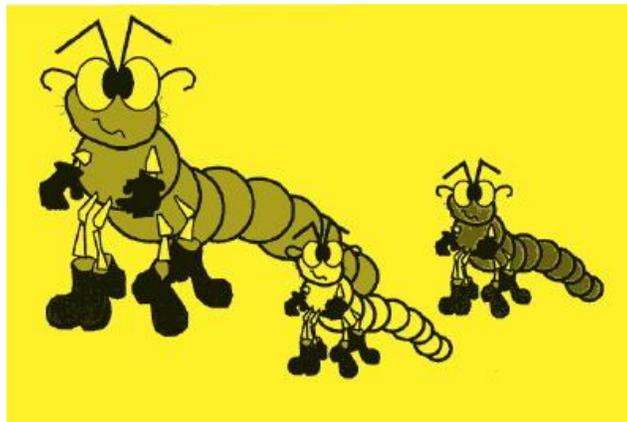
An experiment to determine a mealworms preference of foods.

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Period 8

Life Science



Introduction:

Later on this week, table two of Mr. Casey's Life Science class will be testing a mealworm's preference on foods. We will do this in class to see which food they like best. We will start by putting the mealworm into a box. We will then measure an equal amount of four different foods by weight and place them in the four corners of the box. After that, we will let the mealworm eat for 15 minutes while we record their actions. Finally, we will remove each food and weigh it again to see which food has been consumed most by the mealworms.

Hypothesis:

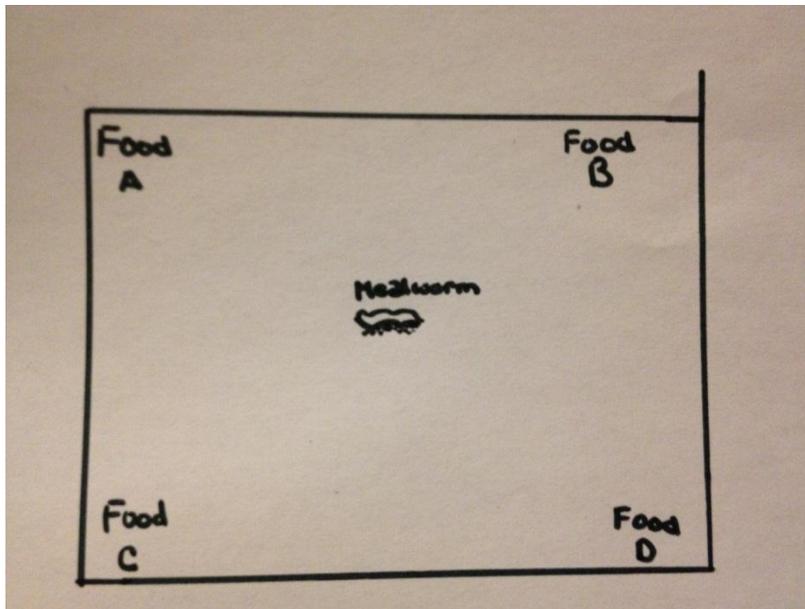
I think if we test a mealworm's preference on food, then it will eat the most of the oats. I think the mealworm will eat the most of the oats because it is probably the closest food to what the mealworm ate in the wild.

Materials:

1. Shoebox
2. Piece of apple (3 grams)
3. Peas (3 grams)
4. Oats (3 grams)
5. Fish Food (3 grams)
6. Scale
7. Scissors
8. Paper towel
9. Meal worm
10. Timer

Procedures:

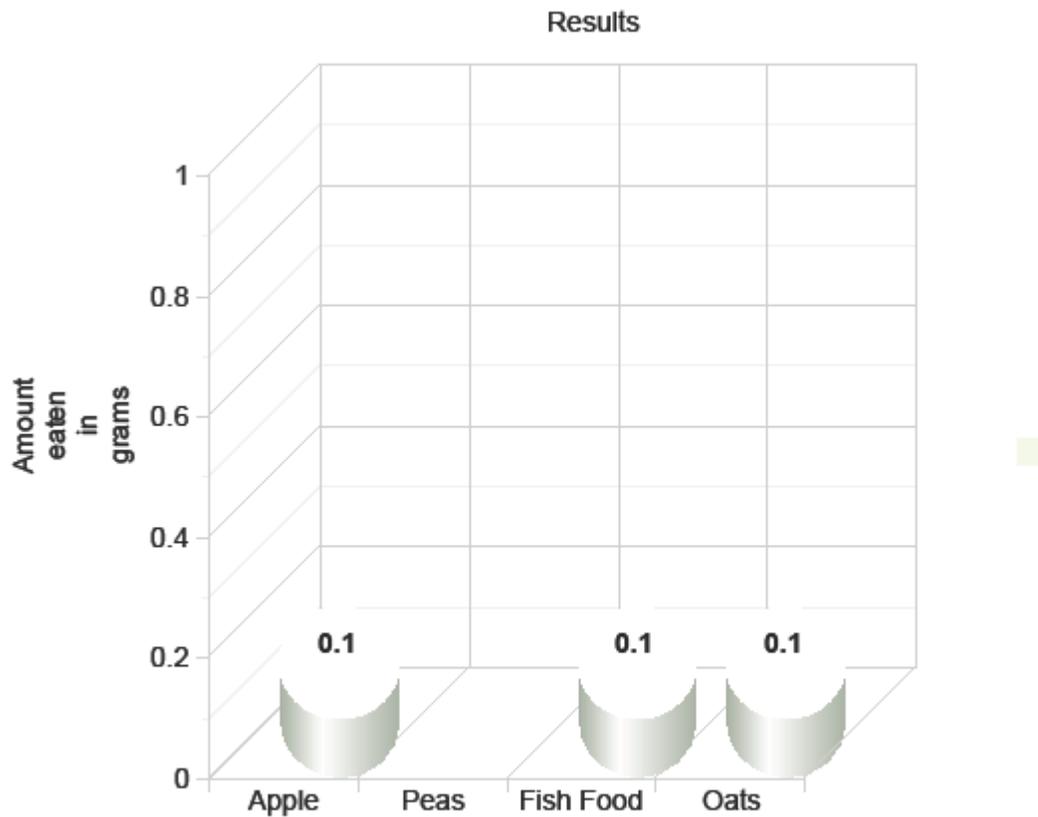
1. Take out your scale and weigh 3 grams of each food, (apple, peas, fish food, and oats)
2. Cut your paper towel into four pieces using the scissors
3. Place measured food onto the paper towel
4. Put the paper towels with food on them into the four corners of your box
5. Get out your timer and set it for 15 minutes
6. Put your meal worm into the box and face him towards the right wall
7. Let the meal worm eat the foods for 15 minutes. While watching him record the following questions... Which food does he go to first? Which food is eating the most of? Does he try all the foods?
8. When the timer goes off remove your worm from the box
9. Weigh each food again
10. Subtract the current weight from the starting weight to see which food the worm ate the most of.



Result and Anylysis:

Food	Starting weight	Ending Weight
Apple	3 grams	2.9 grams
Peas	3 grams	3 grams
Fish Food	3 grams	2.9 grams
Oats	3 grams	2.9 grams

Graph:



In this graph we see how much of each food the meal worm ate. Our worm ate .1 gram of everything except the peas.

Conclusion:

The purpose of our experiment was to test the food preference of a mealworm. My initial hypothesis was that the mealworm would eat mostly oats. I predicted this because out of all the food choices, I thought oats was the closest food to what a mealworm ate in the wild.

After conducting our experiment, we found that our mealworm ate .1 gram each of the fish food, the apple and the oats. Our mealworm however, did not eat any of the peas. Although my hypothesis wasn't right, I don't think it was completely wrong either. From this experiment I learned that mealworms like apples, oats, and surprisingly, fish food, but they do not like peas.

During our experiment, we discovered some flaws. One of our biggest flaws was the weight of the fish food. Because it kept spilling off of our paper towel, we believe our ending weight may have been inaccurate, which means that our mealworm may have eaten less than .1 gram of fish food. Another flaw was that our worm kept crawling under the paper towel and we couldn't see his behaviors.

If I were to conduct this experiment again, I would give our worm more time to eat, and pick a different food besides fish food. If I had the opportunity to further research my project, I would like to test if the worms like apples or oats. Finally, I would like to test multiple worms.

When connecting this experiment to my daily life I realize mealworms share some of our same survival skills. We both tend to avoid foods we are not familiar with and won't eat just anything. I think this helps us both so we won't get sick or poisoned.