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| What do Crickets Eat?Name: \_ |  |

**Hypothesis**

Look at the different types of food chosen by your group. Make a prediction about which food the crickets will prefer to eat. If the group can’t agree on one food over another, each group member can make their own hypothesis. Make sure you have a good reason to help explain your choice. Your hypothesis will read, somewhat, as follows: “The crickets will prefer \_\_\_\_ because \_\_\_\_.” Write it down here:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Materials**

|  |  |
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| * 4 different types of food
 | * Magnifying glass
 |
| * Data sheet
 | * 4 crickets (per group)
 |
| * Transparent plastic container
 | * Brown paper, cut into small pieces of equal size
 |
| * Mesh (to cover containers so crickets can’t escape)
 |

**Procedure**

1. Place a small portion of each food on a piece of brown paper in the four corners of the plastic container. Record your group’s food choices on Table 1, one food choice per column.
2. Gently take four crickets out of the habitat and place them in the container with the food. Put the mesh over the container and make sure that it entirely covers the top. Give the crickets 3 minutes to get used to the container.
3. Start recording your observations in Table 1. Each group member will observe one cricket. You will record the number of times that your cricket visits each type of food. A visit is defined as a cricket spending 5 or more seconds on a given food. Every 5 seconds count as a visit. If a cricket spends 10 seconds on one food it counts as two visits. If a cricket spends 13 seconds on a given food it still counts as two visits.
4. Keep observing for \_\_\_ minutes. Enter your cricket’s number of visits to each food in the first row of Table 1.
5. Take a short break from making your observations. When your teacher says it’s okay, begin counting visits again for another \_\_\_ minutes.
6. To find the total number of visits per food, add A and B in the table.

**Table 1. Number of Cricket Food Visits**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Food: | Food: | Food: | Food: |
| 1. Visits during first \_\_ minutes
 |  |  |  |  |
| 1. Visits during the last \_\_ minutes
 |  |  |  |  |
| **Total** number of visits (add A+B) |  |  |  |  |

1. Share your observations with your group members. Record the *group’s* totals in Table 2.

**Table 2. Total Number of Cricket Food Visits *in the Group***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Food: | Food: | Food: | Food: |
| Group Member 1 **Total** |  |  |  |  |
| Group Member 2 **Total** |  |  |  |  |
| Group Member 3 **Total** |  |  |  |  |
| Group Member 4 **Total** |  |  |  |  |
| **Entire Group’s Totals** (add from above) |  |  |  |  |

**Graphing Your Data**

Using the data from Table 2, construct a graph below. A bar graph showing the types of food versus the total number of visits would be most appropriate. Remember to title your graph and label the axes. Ask if you need help!

**Graph 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Analysis and Discussion**

1. Which foods did the crickets prefer to eat? How did you come to this conclusion? (Support your answers using your data.)

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2. What do you think attracted the crickets to their preferred foods?

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3. Go back to Page 1 and re-read your hypothesis. Do your results support your hypothesis?

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4. What other factors might be affecting the crickets’ behavior during the experiment?

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5. If we repeated this lab to make the results more accurate, how would you do it differently?

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