

Name: \_\_\_\_\_

# Available Offspring Data Sheet

**Directions:** In the time allotted collect as many food items as possible using the beak your group created.

## Round #1...EAT!

Food Source	Collection Time	Number of Collected Food Necessary to Produce 1 Offspring (Round down)	Number of Food Items	How Many Offspring Can You Produce?	1 Offspring = Time in Minutes	Total Time (# of offspring X 2min)	Total Redesign Time
Type 1 (Think ants)	15 seconds	40			2 minutes		
Type 2 (Think worms)	15 seconds	15			2 minutes		
Type 3 (Think grubs)	15 seconds	15			2 minutes		
Type 4 (Think seeds)	15 seconds	20			2 minutes		
Type 5 (Think fruit)	15 seconds	7			2 minutes		

**Reflection Question:**

<b>How many offspring did you produce?</b>	
<b>Did your beak perform better or worse than you thought it would? Why or why not?</b>	

**Round #1...Reflect**

<p><b>Can you redesign your beak to produce more offspring?</b></p>	
<p><b>If so, what changes did you make?</b></p>	
<p><b>What are your predictions for the second round of testing?</b></p>	

# Round #2...EAT!

Food Source	Collection Time	Number of Collected Food Necessary to Produce 1 Offspring (Round down)	Number of Food Items	How Many Offspring Can You Produce?	1 Offspring = Time in Minutes	Total Time (# of offspring X 2min)	Total Redesign Time
Type 1 (Think ants)	15 seconds	40			2 minutes		
Type 2 (Think worms)	15 seconds	15			2 minutes		
Type 3 (Think grubs)	15 seconds	15			2 minutes		
Type 4 (Think seeds)	15 seconds	20			2 minutes		
Type 5 (Think fruit)	15 seconds	7			2 minutes		

## Reflection Question:

<p><b>How many offspring did you produce? Were your predictions accurate? Include how much higher or lower you were than you predicted.</b></p>	
<p><b>What happened during your test? Was Be sure to provide specific details.</b></p>	

## Round #2...Reflect

<p><b>Could you redesign your beak to produce more offspring?</b></p>	
<p><b>What features are changing and why?</b></p>	

**What are your predictions for the third round of testing?**

## Round #3...EAT!

Food Source	Collection Time	Number of Collected Food Necessary to Produce 1 Offspring (Round down)	Number of Food Items	How Many Offspring Can You Produce?	1 Offspring = Time in Minutes	Total Time (# of offspring X 2min)	Total Redesign Time
Type 1 (Think ants)	15 seconds	40			2 minutes		
Type 2 (Think worms)	15 seconds	15			2 minutes		
Type 3 (Think grubs)	15 seconds	15			2 minutes		
Type 4 (Think seeds)	15 seconds	20			2 minutes		
Type 5 (Think fruit)	15 seconds	7			2 minutes		

### Reflection Question:

<p><b>How many offspring did you produce? Were your predictions accurate? Include how much higher or lower you</b></p>	
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<b>were than you predicted.</b>	
<b>What happened during your test? Be sure to provide specific details.</b>	

## Round #3...Reflect

<p><b>How could a change in environment affect the success of your beak?</b></p>	
<p><b>What would happen if we moved this experiment outside onto the grass?</b></p>	
<p><b>What would happen if we increased the competition?</b></p>	
<p><b>Imagine the entire class having access to a food source. Would your beak be more or less successful?</b></p>	

<p><b>Which beak was best adapted to each type of food? Why?</b></p>	
<p><b>Did editing time impact food collection? How?</b></p>	
<p><b>Which beak was least adapted to each type of food? Why?</b></p>	
<p><b>What do you think would happen if the only available food source was bananas? How would your beak fare? What about your classmates'?</b></p>	