

Name: _____

I am better than you!

Station 1: Bird beaks Match the “beaks” with the food source: spoon, forceps/tweezers

Beak	Number of beans
Spoon	
Forceps/tweezers	

Beak	Number of pasta noodles
Spoon	
Forceps/tweezers	

Which beak picked up the most beans and why do you think it could pick up more of that particular food source?

Which beak picked up the most pasta and why do you think it could pick up more of that particular food source?

If there was a famine and half of the bean plants died, what do you think would happen to the population of birds and why? _____

What kind of selection would that be, explain? (hint, remember the 3 types of natural selection graphs).

Station 2: Camouflage: Try to find as many hidden animals in the pictures as you can in 30 seconds.

How many did you find: _____

Why did you have difficulty finding the animals you missed? _____

What is camouflage: _____

Station 3: Claws: First dig with your bare hand and find as many beans as you can in 20 seconds. Then try the “claw” on and see if that makes a difference.

How many beans were you able to find using just your fingers? _____

How many beans were you able to find using the claws? _____

What do you think the claws are good for? _____

Station 4: Mimicry: You can ONLY pick 3 of the 5 cups. Try to pick the one that is soda

What is mimicry? _____

Were you successful in picking the correct cup? Why or Why not? _____

What were the tiny differences you looking for? _____

Station 5: Fur: See how long you can last in the cold

How long were you able to hold your bare hand in the ice water? _____

How long were you able to hold the gloved hand in the ice water? _____

Do you think you would have had the same results if the water was very warm? Explain. _____

Where would you find the adaptation for fur? _____

What kind of adaptation would you find in hot climates? (hint, no fur is not an option, think of the organisms found in a desert). _____

Station 6: Genetic Drift: The RANDOM Evolution

Genetic Drift: There are 20 fish in your pond. 13 are one colored bead (species #1) and 7 are a different colored bead (species #2). Species #1 camouflage into the sand on the bottom of the lake better and therefore are better suited. However, a tornado comes through, that is you. Close your eyes and pick 10 fish (beads) out of your pond that die due the tornado.

Number of Species #1	Number of Species #2

How did the population change? _____

Add the same colored fish for each fish that remains to bring the population back up to 20 without changing the frequency.

A few months later another tornado comes through. Close your eyes and pick 10 fish out of your pond again.

Number of Species #1	Number of Species #2

How did the population change? _____

A few months later a drought occurs drying up part of the pond. Close your eyes and pick 10 fish out of your pond again.

Number of Species #1	Number of Species #2

How did the population change? _____

How did the final new population change compared to the original? _____

Species #1 were better suited for their environment. Did the better suited color survive more and pass on their genes? _____

What was different about this evolution than if they were dying due to how well their predators could see them? _____