Activity: New Species in the Making!

Name:_____

Background:

A population of the elusive "Blobola" has been separated into different island populations due to a catastrophic flood. Each island has specific unique characteristics the separated Blobolas will have to adapt to and survive in. Remember, there will be genetic variation within this initial Blobola population, which means the **fittest** Blobolas on each island will survive to reproduce (hmmm... sounds like Natural Selection to me!)

Procedure:

1. Your group has a generic Blobola drawn on a sheet of paper. It will be your task to predict how your Blobola population will evolve over a period of many years in order to survive and reproduce in its new island environment.
2. "Travel" to your island- (OK, we're just heading to the Superlab, but "traveling" makes this sound more exciting!!) and read the description of the environment and available resources.
3. Using the information provided, modify your Blobola to suit its environment by drawing specific features on your generic Blobola. You will need to consider the following features:
   - hair, fur, or skin
   - eye shape & size
   - mouth shape & size (feeding mechanism)
   - nose shape & size
   - appendages (arms/legs/wings)
   - reproductive tactics (mating behaviour)
   - chosen "nesting" habitat or "home base"
   - food choice (what does it eat)
4. Complete the descriptions below for your Blobola population and answer the questions on the back page.

Some Specifics About Your Blobola Population:

1. Describe some specifics about your population's mating behaviours. How are these related to the environment in which it lives?

2. Where does your Blobola population choose to nest or make it's home? Again, describe in relation to the habitat features available to it.

3. What does your Blobola feed on?

Questions:

1. Explain how your Blobola population is "reproductively isolated" from the other Blobola populations.

2. How did your Blobola population evolve into the species you have drawn? Use specific references to the process of Natural Selection and fitness in your answer.

3. Find another group of Blobolas to compare features and behaviours with. Imagine your populations have been reintroduced to each other when a small number of their Blobolas float over to your island on a log (thousands of years after your initial separation).

   (a) Can your 2 Blobola populations co-exist or will there be competition for resources on your island? Explain why or why not.

   (b) Could there be a possibility of interbreeding between the 2 populations? In your answer, take into consideration the mating behaviours you created on the first page on this sheet.

4. This activity is a basic example of factors influencing speciation. Explain how speciation occurs in "real life" using Darwin's finches as an example.