What Did We Figure Out in Africa? (Quarter 1 Assessment) Name_____

1) Life as a Hunter Activity

a. How did you figure out which prey would provide the optimal amount of energy for each lion?

b. What conclusions can you make about hunting solo vs in a group for large predators like lions?

2) Lulu the Lioness (Data Sets 1-5)

a. In what WAYS (different data sets) did you figure out the lion cubs' parentage?

b. How does this connect to the previous activity (Life as a Hunter)?

3) Herbivores, Omnivores, Carnivors, Oh My! Animal Nutrition Lab (Various data sets)

a. How did you figure out what features allowed herbivores and carnivores to consume their diets?

b. How does this connect to the previous activities (Life as a Hunter & Lulu the Lioness)?

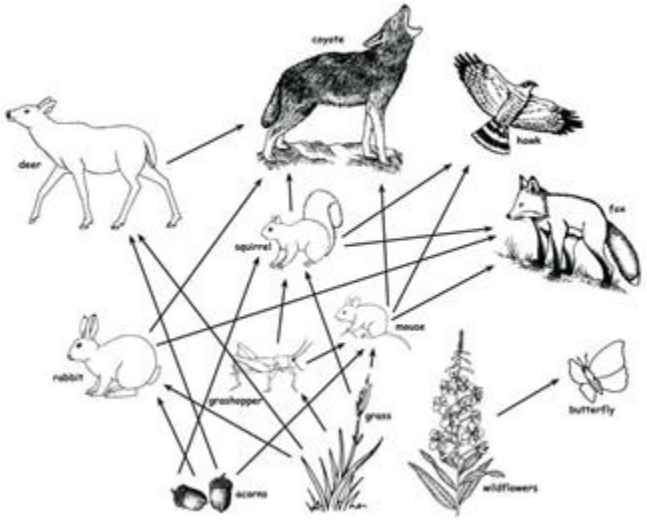
4) Creating Chains and Webs to Model Ecological Relationships (Green Packet)

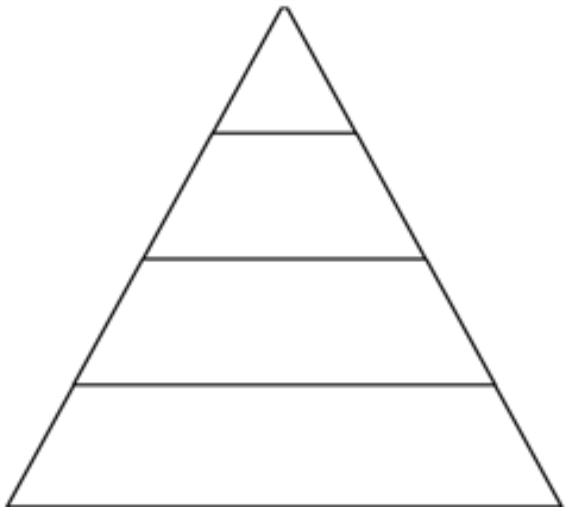
a. Why did you place the trophic levels (and organisms on those trophic levels) where you did?

b. How did you calculate how much energy is lost at each trophic level?
(Use this example: Producers = 3000 kcal)

c. How does this connect to the previous activity (Animal Nutrition Lab)?

Using ***all*** species in the food web, assemble them into the pyramid provided.





5) Building Macromolecules (White Packet)

a. How did you figure out where Lions and Elephants get their main source of energy?

b. How does this connect to Creating Food Webs/Pyramids and the Animal Nutrition Lab?

6) Cycles (Nitrogen Cycle sheet)

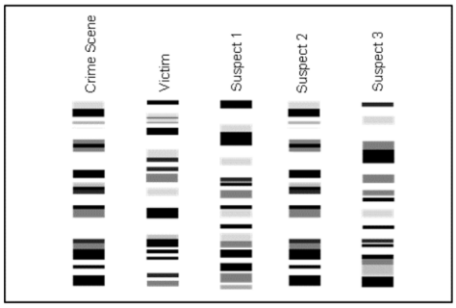
a. Where does nitrogen come from and how is it reused/recycled?

b. How does nitrogen connect to the building of certain macromolecule(s)? (Name those that contain N.)

7) CSI Wildlife (Gel Electrophoresis) - Use the gel below to answer the following.

a. Which suspect was at the crime scene? _____

b. How did you use the DNA fragments shown to figure this out?



c. How does this method work to help save elephants?

8) Tusklessness

a. How did you figure out that there are genetic variations among species? (Like elephants)

b. How does this connect to the previous activity (CSI Wildlife)?

9) A Plant's Raw Materials

a. How did you figure out how plants obtain the materials needed to do photosynthesis?

b. How does this connect to previous activities? (Hint: Think energy!)

10) Cellular Respiration

a. How did you figure out how photosynthesis and cell respiration work in plants and animals?

b. How does this connect to the previous activity? (A Plant's Raw Materials)

c. How does this connect to the carbon cycle?