**Evolution Unit Review Honors Biology 2019**

Review the Evolution PowerPoint and address the following questions

1. Explain what is meant by survival of the fittest. How could this shape the diversity in a population of peppered moths that experience predation from a predator if something dramatic changed in the environment. Think of the example of the peppered moths in England during the Industrial Revolution when the trees were covered in ash from the coal burning factories.
2. What are the five sources of genetic variation in a population and why is variation necessary for a population to evolve? *(think - changing environmental conditions, fitness of individuals, etc.)*

**Isolating Mechanisms (Behavioral, Geographical, Temporal)**

1. Describe the 3 main types of isolation that can lead to the formation of a new species.

**Review the three main types of selection (Disruptive, Stabilizing, Directional).**

1. Draw a diagram for each type of selection that can occur on a population, and write a short statement explaining each type.
2. Explain the following examples that provide evidence for the Theory of Evolution:
   1. Embryology
   2. Fossils
   3. Comparative anatomy
   4. Molecular Biology (genetics)

**Other vocabulary**

1. Homologous
2. Analogous
3. Vestigial

**Classification**

Arrange the following levels of classification in order from most inclusive to least inclusive:

genus, order, family, species, kingdom, phylum, domain, class