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

**Evolution Study Guide:**

1. What is the biological definition of evolution?

**Scientists:**

1. Who was Charles Lyell and what did he think?
2. Who was Charles Darwin and what did he think?
3. What did Jean Lamarck think and why was it wrong?

**Evidence for Evolution:**

1. What does Biochemistry compare and how does it show evolution?
2. What are homologous structures? Give an example.
3. What are analogous structures? Give an example.
4. What does the fossil record show?
5. What are vestigial structures? Give an example.

**Natural Selection:**

1. What is natural selection? Give an example.
2. What has to be true for natural selection to occur?
3. What does fitness mean?
4. What are alleles and how do they relate to natural selection?
5. What is diversity and variation and how do they relate to natural selection?
6. What is directional selection? Give an example. Draw the graph
7. What is stabilizing selection? Give an example. Draw the graph
8. What is disruptive selection? Give an example. Draw the graph

**Mechanisms for Evolution**

1. What do mutations bring to a population? What happens to bad/harmful mutations?
2. How does migration cause evolution?
3. What is genetic drift?

**Speciation:**

1. What is the definition of a species?
2. What is speciation?
3. What is reproductive isolation?
4. What is geographic isolation?

**Sexual Selection**

1. Why would a female choose a particular male?
2. What are 2 disadvantages to sexual reproduction?

**Macroevolution:**

1. What is the difference between gradualism and punctuated equilibrium?

**Adaptation:**

1. What is an adaptation?
2. The statement “animals adapt to their environment” is FALSE, how could you make it TRUE?