

## Exploration Student Worksheet: Evolution

### Overview

Evolution is a phenomenon through which favorable characteristics are transferred from one generation to the next. In this Exploration, study how a population of bugs evolves to adapt to its surroundings.

### Questions

1. Explain the difference between natural and artificial selection.

2. In the Exploration, the color of the bugs evolves over the course of a few generations. Give another real world example which can support Darwin's theory.

3. List any two factors that affect evolution.

Name \_\_\_\_\_ Date \_\_\_\_\_

4. Scientists experimenting on artificial selection use certain techniques to increase the rate of mutation. Explain why a higher mutation rate is desirable.

5. Sometimes when organisms evolve, it gives rise to multiple species that can coexist simultaneously. Give an example supporting this statement.

6. Explain why some species become extinct.

7. Darwin's Theory of evolution suggests that fishes evolved into amphibians. If this statement is assumed to be true, explain why fishes still exist on the planet.

Name \_\_\_\_\_ Date \_\_\_\_\_

8. Explain the difference between adaptation and evolution.

9. Explain the role played by the rate of mutation in determining the course of evolution.

10. Describe how the process of evolution stops.