Standard 4: Students will understand that offspring inherit traits that make them more or less suitable to survive in the environment.

Objective 1: Compare how sexual and asexual reproduction passes genetic information from parent to offspring.

Enduring Understanding:

Reproduction passes information from parent to offspring. Asexual reproduction requires one parent and produces nearly identical offspring. Sexual reproduction requires two parents, and provides variety in a species.

Essential Questions

- 1. How are traits from parents passed on to offspring?
- 2. What is the difference between inherited and acquired traits?
- 3. Which form of reproduction results in identical offspring to the parent?
- 4. Give examples of two organisms that reproduce sexually and two that reproduce asexually.
- 5. What structural traits do offspring have that are similar to their parents?

Standard 4: Students will understand that offspring inherit traits that make them more or less suitable to survive in the environment.

Objective 2: Relate the adaptability of organisms in an environment to their inherited traits and structures.

Enduring Understanding:

Genetic variation allows a species to adapt to changes in the environment and help the species survive. A species may change due to the passing of traits naturally or by techniques used and developed by science. Genetic information is passed on in a predictable manner.

Essential Questions

- 1. How do species adapt to changes in their environments?
- 2. How do structures like sharp teeth and long legs help a wolf survive?
- 3. What traits help a deer survive in a forest? What would happen if the deer were moved to a desert?
- 4. What genetic traits of a cow have been altered by people?