### Artificial Selection
The process by which humans change a species by breeding it for certain traits.

### Heritability
The ability of a trait to be passed down from one generation to the next.

### Struggle for Survival
Populations would grow geometrically if resources were unlimited. Instead, disease and a limited food supply keep the population smaller.

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**Key insights led to Darwin’s theory.**

**Natural Selection Explains How Evolution Can Occur.**

**Natural Selection is:**
A mechanism by which individuals that have inherited beneficial adaptations produce more offspring on average than do other individuals.

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The 4 main principles of natural selection are:

- **Variation:**
  The heritable differences that exist in every population are the basis for natural selection.

- **Overproduction:**
  Having many offspring increases the chance of survival but also results in competition for resources.

- **Adaptation:**
  A certain variation that allows an individual to survive better than other individuals it competes against.

- **Descent with Modification:**
  Heritability of adaptations. More individuals will have the trait in every following generation, as long as the environmental conditions remain beneficial for the trait.