

In a habitat there are red bugs and green bugs. The birds prefer the taste of the red bugs, so soon there are many green bugs and few red bugs.

Imagine that some giraffes have long necks and others have short ones. An invasive fungus is causing all of the low-lying shrubs to die out. The giraffes with short necks will not get enough food.

A species of rat live in a certain type of tree with the branches evenly spaced. Smaller rats cannot reach from branch to branch and larger rats break the branches and fall.

Deer mice that live in forests migrate to the sand hills of Nebraska because their habitat is being cut down. Their fur is dark brown to help them blend in to the forest floor. The sand hills are light tan and are home to many predators. Some deer mice are born with a genetic mutation that gives them lighter fur color.

On an island in the Galapagos there is a species of finch that has a variety of beak sizes. During drought, there are more large tough seeds that require large beaks to break open. During rainy times, more small seeds are produced than large seeds. The small seeds are too difficult to eat with large beaks. Imagine that the island is normally rainy but it suddenly experiences a five-year drought.

Insects become resistant to pesticides very quickly, sometime in one generation. If an insect is resistant to the chemical, most of the offspring will also be resistant. Considering that insect generations can be a matter of weeks, insects in an area can become immune to a chemical within months.

Peacock females pick their mate according to the male's tail. The females are more attracted to males with big flashy tails than males with small drab tails. Today, males that do not have bright feathers are very rare.

Imagine you are in a jungle in Southeast Asia where a species of lizard lives. This jungle is near a large river that floods every year. Lizards with short legs have trouble climbing trees and reaching food. Lizards with longer legs climb easily and can reach food.

## NATURAL SELECTION JIGSAW

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

- The organism in my example is a(n) \_\_\_\_\_.
- The trait \_\_\_\_\_ for this organism comes in different varieties.  
The varieties are \_\_\_\_\_.
- Which variation gives your organism a disadvantage? \_\_\_\_\_
- Why is this variation a problem for the organism's survival/reproduction?
- Which variation gives your organism an advantage? \_\_\_\_\_
- Why is this variation beneficial for the organism's survival/reproduction?
- Which variation of your organism do you expect to be the most common in 1,000 years? \_\_\_\_\_.

**On the back of this sheet of paper create a short cartoon illustrating the variation in your organism's population and how the environment changes what the population eventually looks like.**

**Be sure to include:**

- **The different varieties in your starting population**
- **What the environment is like/how your environment changes**
- **What your population looks like after 1,000 years**

\_\_\_\_\_

by \_\_\_\_\_

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**Share your example of natural selection with your “home group”. Fill in each of the boxes as you listen to your group members share their examples with you.**

**EXAMPLE 1:**

- 1) Their organism is a(n):
- 2) The environment looks like:
- 3) The organisms with \_\_\_\_\_  
are at a disadvantage because:
- 4) The organisms with \_\_\_\_\_  
are at an advantage because:
- 5) Organisms with \_\_\_\_\_  
will be more common in 1,000 years.

**EXAMPLE 2:**

- 1) Their organism is a(n):
- 2) The environment looks like:
- 3) The organisms with \_\_\_\_\_  
are at a disadvantage because:
- 4) The organisms with \_\_\_\_\_  
are at an advantage because:
- 5) Organisms with \_\_\_\_\_  
will be more common in 1,000 years.

**EXAMPLE 3:**

- 1) Their organism is a(n):
- 2) The environment looks like:
- 3) The organisms with \_\_\_\_\_  
are at a disadvantage because:
- 4) The organisms with \_\_\_\_\_  
are at an advantage because:
- 5) Organisms with \_\_\_\_\_  
will be more common in 1,000 years.

**EXAMPLE 4:**

- 1) Their organism is a(n):
- 2) The environment looks like:
- 3) The organisms with \_\_\_\_\_  
are at a disadvantage because:
- 4) The organisms with \_\_\_\_\_  
are at an advantage because:
- 5) Organisms with \_\_\_\_\_  
will be more common in 1,000 years.