

Name _____

Apples and the Science of Selection



Station 1:

Where did the apple originate?

1. What are the similarities and differences between the cartoon tale of Johnny Appleseed and the real life of John Chapman?
2. What were native apples (crabapples) used for in the 1700s and 1800s? Why?
3. How have apples changed since then?

Station 2:

Why aren't apple trees grown from seed?

1. Why don't farmers grow apples from seed?
2. What is grafting?
3. What is the genetic relationship of two [Granny Smith] apple trees produced by grafting?

Station 3:

What changes apples from a solid to a liquid?

1. What two elements change an apple from a solid to a liquid state?
2. List 2 characteristics of solids and 2 characteristics of liquids.
3. In addition to applesauce, what other food products can be made from apples?

Station 4:

What makes apples crisp?

1. Who is responsible for creating the Honeycrisp apple?
2. Describe the difference between the cells in a Honeycrisp versus the cells in a Red Delicious apple.
3. What is one drawback to the minimal genetic differences found in the apple industry?

Station 5:

How can a specific trait be added to an apple?

1. What are some benefits of the non-browning Arctic® apple?
2. If you were developing a variety of apple, what 3 characteristics would you want it to have?
3. Name 3 differences found in the Arctic® apple that are not found in other apple varieties.