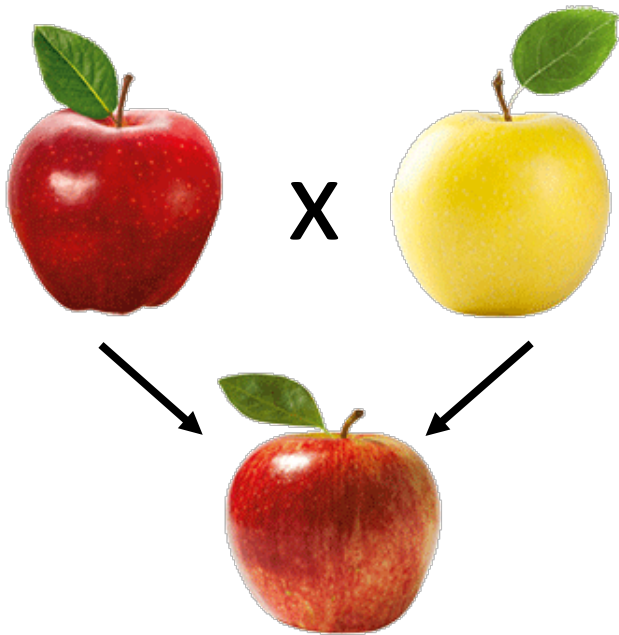


## Station 5:

# *How can a specific trait be added to an apple?*



## **Selective Breeding**

*A process where specific plants or animals are paired for breeding in order to perpetuate specific phenotypic traits.*

The apples we purchase at the grocery store were produced on a tree propagated by grafting. This allows all the apples to be consistent in color, texture, and flavor.

However, in the pursuit of new varieties of apples with improved characteristics, apple breeders cross pollinate apple cultivars in search of new genetic characteristics.

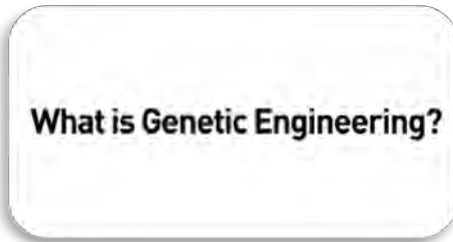
Honeycrisp apples were created through cross breeding. The Arctic apple was developed through transgenesis or genetic engineering.

Watch the following videos:

1

*"What is Genetic Engineering"*

*"How are GMOs Created?"*



2

Answer the Challenge Questions on your handout and taste samples of an Arctic® apple and a Yellow Delicious.

Learn about the new Arctic® apple:

*"Arctic® Apples Explained"*

*"Arctic® Apple Time Lapse"*

3

