



# Tech & Innovation Lab

## Plant Breeding



# G R O W



## GET READY

Watch this video on how breeding works:

[https://www.youtube.com/watch?v=q02g\\_OKTByM](https://www.youtube.com/watch?v=q02g_OKTByM)



### Guiding Questions:

What is plant breeding?  
How long do you think it could take to get the desired traits using this method?



## RESOURCE ROUND UP

Check out this website and video from Bayer CropScience:

<https://www.cropscience.bayer.com/innovations/seeds-traits/plant-breeding>

As you click through, think about and write down:

- Where and when were the first genetically modified seeds created?
- What colour were carrots before we bred them to be orange?
- How many years have we been breeding bananas?
- Which vegetables originated from mustard seeds?

### Consumer Understanding of Modern Agriculture:

<https://www.theglobeandmail.com/life/adv/article-advancing-consumer-understanding-of-modern-agriculture/>

### Facts and Figures on GMOs:

<https://croplife.ca/facts-figures/gmos-in-canada/>



## OBSERVE RESULTS OF YOUR LEARNING

Create a chart for plant breeding.

|                | Year it began | Picture of a plant | Other Crop Examples | Benefits |
|----------------|---------------|--------------------|---------------------|----------|
| Cross Breeding |               |                    |                     |          |
| Mutagenesis    |               |                    |                     |          |
| Transgenesis   |               |                    |                     |          |
| Genome Editing |               |                    |                     |          |



## WHAT DID YOU LEARN?

How long have we been breeding and modifying plants for specific traits?

How are plants bred for specific traits benefiting: Environment, Farmers and Consumers?

