

# SUSTAINABILITY LAB ENVIRONMENT



## G R O W

Ag for Life

### Guiding Questions:

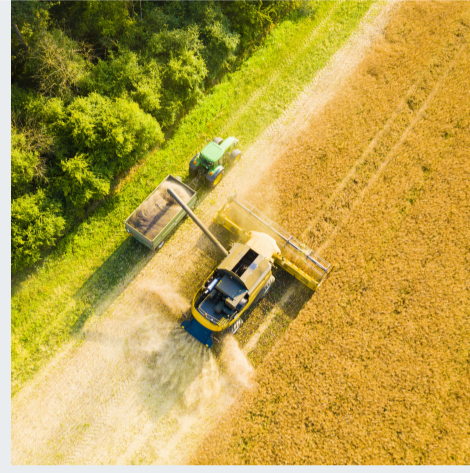
- What are the social, economic and environmental impacts of feeding the world?
- How does innovation in agriculture lead to improved sustainability?
- How can my consumer choices affect sustainability?

### G GET READY

Watch the Video: Sustainability -Farming for the Next Generation

[https://youtu.be/DoV\\_ymt2IYI](https://youtu.be/DoV_ymt2IYI)

What are the greatest challenges facing farmers today?  
What is this farmer doing to make his farm more sustainable?



### R REVIEW LEARNING RESOURCES



In word/ doodle splash, brainstorm a list of all of the agriculture innovations you can think of that help farmers improve environmental sustainability.

Watch the Video: Sustainable Crop Production in Alberta

<https://youtu.be/nzuQouUlseA>

During viewing:

Add to your word/doodle splash with innovations you see in the video – use a different colour to identify which concepts were added during viewing.

After viewing:

Think about why producers continue to invest in new innovations.



Read Article: Feeding 9 Billion

### FEEDING 9 BILLION

<https://www.nationalgeographic.com/foodfeatures/feeding-9-billion/>

In your notebook, list, sketch, and explain the 5 steps identified in the article to sustainably feed the world

A FIVE-STEP PLAN TO  
Feed  
the World

### O OBSERVE RESULTS OF AN ACTIVITY OR EXPERIMENT

Soil conservation is a big issue in sustainability!

Construct this demonstration to see how water erosion affects loose soil.  
How do farmers prevent soil erosion?

[https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/edu/kthru6/?cid=nrcs142p2\\_054299](https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/edu/kthru6/?cid=nrcs142p2_054299)

Challenge:

Compare erosion from loose soil to erosion in planted soil or sod.



### W WHAT DID YOU LEARN?

Explore the FCC Interactive Timeline of Canadian Ag

<https://www.fcc-fac.ca/en/ag-knowledge/agrisuccess/timeline-of-canadian-agriculture.html>

Select one innovation from the timeline and identify its social, economic and environmental impacts. Does it relate to the 5 solutions outlined in the article?

How does innovation in agriculture impact the environment?  
How can your food choices impact the environment?

