Follow the Farmers — VIRTUAL FARM TOURS —

Follow the Wheat Farmer

TEACHER GUIDE (Grades 3 & 5)

GOALS:

Students will:

- Explore a Manitoba wheat farm to discover where their food comes from.
- Learn about the life cycle of wheat and the conditions needed to grow a healthy wheat crop.
- Identify what foods and nutrients come from wheat.
- Discover how a combine harvester, and all the simple machines in it, work to harvest grain.
- Discover why Manitoba's natural resources are ideal for wheat farming.

OUR MANITOBA WHEAT FARMER!

Jason Rempel and his family run a 3rd generation farm, Rempel Co. Acres near New Bothwell, Manitoba.

Along with wheat, they farm grain, hogs, and goats on their mixed farm.

CURRICULUM CONNECTIONS

Grade 3 Science Cluster 0: Overall Skills and Attitudes	
3-0-2a	Access information using a variety of sources. *Examples: children's magazines, local farmers, CD-ROMs, Internet...*
Cluster 1: Growth and Changes in Plants	
3-1-01	Use appropriate vocabulary related to their investigations of growth and changes in plants. Include: growing medium, nutrient, energy, root, stem, leaf, flowers, pistil, stamen, ovule, pollen, seed, fruit, adaptation, life cycle.
3-1-04	Conduct experiments to determine conditions needed for healthy plant growth. Include: light, water, air, space, warmth, growing medium, nutrients.
3-1-10	Care for a flowering plant throughout its life cycle, tracking its growth and its changes over time.
3-1-11	Identify characteristics that remain constant and those that change throughout the life cycle of a flowering plant. Examples: generally, for a given plant, the leaf shape and flower colour stay the same, whereas the leaf size and number of leaves change...
3-1-15	Identify and describe hobbies and jobs involving plants.
3-1-16	Identify how humans from various cultures use plant parts for food and medicine. Examples: use of roots for food (carrots) and medicine (ginseng).
3-1-18	Explain how humans replenish the plants they use and the consequences if plants are not replenished.
Cluster 4: Soils in the Environment	
3-4-08	Explain the importance of understanding the characteristics of different soils. Examples: enables farmers to determine which crops can be grown in a particular area, enables gardeners to improve plant growth, enables engineers to know what types of foundations to set for structures.
Grade 3 Social Studies Cluster 3: Communities of the World	
3-KL-018	Give examples of the use of natural resources in communities studied.
3-KE-035	Give examples of work, goods, and technologies in communities studied.
3-KE-036	Give examples of how the natural environment influences work, goods, technologies, and trade in communities studied.

Agriculture in the Classroom MANITOBA

CURRICULUM CONNECTIONS (CONT.)

Grade 5 Science Cluster 0: Overall Skills and Attitudes	
5-0-2a	Access information using a variety of sources. *Examples: libraries, magazines, community resource people, outdoor experiences, videos, CD-ROMS, Internet...*
5-0-8e	Describe hobbies and careers related to science and technology.
5-0-8g	Describe positive and negative effects of scientific and technological endeavours. Include: effects on themselves, society, the environment, and the economy.
Cluster 1: Maintaining a Healthy Body	
5-1-01	Use appropriate vocabulary related to their investigations of human health. Include: nutrients; carbohydrates; proteins; fats; vitamins; minerals; Canada's Food Guide to Healthy Eating; food group; serving size; terms related to the digestive, skeletal, muscular, nervous, integumentary, respiratory, and circulatory systems.
5-1-03	Describe the types of nutrients in foods and their function in maintaining a healthy body. Include: carbohydrates, proteins, fats, vitamins, minerals.
Cluster 3: Forces and Simple Machines	
5-3-01	Use appropriate vocabulary related to their investigations of forces and simple machines. Include: applied force, balanced and unbalanced forces, fulcrum, load, friction, terms related to types of simple machines.
5-3-04	Identify objects in the school and at home that use wheels and axles, and describe the forces involved.
5-3-10	Identify and describe types of simple machines. Include: levers, wheel and axle, pulley, gear, inclined plane, screw, wedge.

Lesson Plan

Activate

BEFORE SHOWING THE VIDEO

- Have students answer these 2 questions on a piece of paper.
  - What is wheat? Describe what wheat looks like.
  - What part of the wheat plant do we use for food?
  - Name 3 foods made from wheat.
  - Name the nutrients we get from the wheat in our food.
  - What machine is used to harvest wheat?
    - » Name the simple machines that are part of that machine.

Acquire

DURING THE VIDEO

- Have students watch for:
  - The stages in the life cycle of a wheat plant
  - The answers to the activate questions.

Assess

AFTER THE VIDEO

- Students can add any additional information they learned from the video to the answers for the two "Activate" questions posed above. Then discuss as a class.
- Students can write a paragraph about canola. Suggested topics include:
  - Five interesting things I learned about wheat.
  - The foods and nutrients we get from wheat.
  - The simple machines in a combine and what each does.
- Students can create a picture showing the stages in the life cycle of wheat.

Materials Needed:

Follow the Wheat Farmer video - use either:

- Option 1 – video only, 8:57
- Option 2 – Livestream event recording with video and Q&A with Jason Rempel, 58:44

BACKGROUND INFORMATION:

For a quick overview of wheat production in Manitoba, check out our wheat information on the Foundations of Manitoba Agriculture hub.

Companion Resources

Grade 5 – Simple Machines are Everywhere on the Farm worksheet.