

Follow the Canola Farmer

TEACHER GUIDE (Grades 3 & 5)



GOALS:

Students will:

- Explore a Manitoba canola farm to discover where their food comes from
- Learn about the life cycle of canola and the conditions needed to grow a healthy canola crop.
- Identify what food comes from canola.
- Describe the role of fats in our diet.
- Discover why Manitoba's resources are ideal for canola farming.

OUR MANITOBA FARMER!

Will Bergmann and his family run a third generation farm, Bergmann Bros. Farms, in partnership with his father and uncle.

They grow crops including wheat, oats, canola, corn, soybeans, and vegetables and raise pigs near Glenlea, Manitoba.

CURRICULUM CONNECTIONS

Grade 3 Science	
Cluster 0: Overall Skills and Attitudes	
3-0-2a	Access information using a variety of sources. <i>Examples: children's magazines, local farmers, CD-ROMs, Internet...</i>
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. <i>Examples: generally, for a given plant, the leaf shape and flower colour stay the same, whereas the leaf size and number of leaves change...</i>
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. <i>Examples: use of roots for food (carrots) and medicine (ginseng).</i>
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. <i>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.</i>
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.

CURRICULUM CONNECTIONS (CONT.)

Grade 5 Science Cluster 0: Overall Skills and Attitudes	
5-0-2a	Access information using a variety of sources. <i>Examples: libraries, magazines, community resource people, outdoor experiences, videos, CD-ROMS, Internet</i>
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.

Materials Needed:

Follow the Canola Farmer video - use either:

- o Option 1 - [video only](#) (10:16)
- o Option 2 - [Livestream event recording with video and Q&A with Will Bergmann](#) (1:02:29)

BACKGROUND INFORMATION:

For a quick overview of canola production in Manitoba, check out our canola information on the [Foundations of Manitoba Agriculture hub](#).

Lesson Plan

➔ Activate

BEFORE SHOWING THE VIDEO

- Have students answer these 2 questions on a piece of paper.
 - o What is canola? Describe what it looks like.
 - o What food is made from canola?

➔ Acquire

DURING THE VIDEO

- Have students watch for:
 - o The conditions needed to grow canola
 - o The stages in the life cycle of a canola plant
 - o The food that is made from canola
 - o Why fat is important in our diet

➔ 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:
 - o Five interesting things I learned about canola.
 - o Why canola is a healthy fat and why fat is an important part of our diet.
- Students can create a picture showing the stages in the life cycle of canola

Companion Resources

Grade 3 – Order the companion resource [Canola Crush Kit](#) and have your students try grading and crushing canola seeds.

Grade 5 & 7 – Students can complete the companion resource [Make Your Own Salad Dressing Using Canola Oil!](#) In this activity, students will explore the concepts of:

- o reversible and non-reversible changes;
- o physical and chemical changes;
- o the particle theory of matter;
- o soluble and insoluble solutions;
- o mechanical mixtures.

while experimenting with creating a simple emulsified salad dressing.