



Types of Farms

CURRICULUM CONNECTIONS

History and Geography, Grade 7

B. Natural Resources Around The World: Use and Sustainability

B3. Understanding Geographic Context: demonstrate an understanding of the sources and use of different types of natural resources and of some of the effects of the extraction/harvesting and use of these resources.

History and Geography, Grade 8

A. Global Settlement: Patterns and Sustainability

A1. Application: analyse some significant interrelationships between Earth's physical features and processes and human settlement patterns, and some ways in which the physical environment and issues of sustainability may affect settlement in the future;

A2. Inquiry: use the geographic inquiry process to investigate issues related to the inter-relationship between human settlement and sustainability from a geographic perspective;

A3. Understanding Geographic Context: demonstrate an understanding of significant patterns and trends related to human settlement and of ways in which human settlement affects the environment.

MATERIALS

- Agri-trekking Interactive Resource
- Computer access for each student or each pair of students
- A copy of Appendix A: *Farm Match-Up Game*, one per group
- A copy of Appendix B: *Farm Design Guide* worksheet for each student or each pair of students

LEARNING GOAL(S)

- Students demonstrate an understanding of the different types and locations of farms in Ontario.
- Students can compare the physical characteristics of different types of farms.
- Students can identify the environmental characteristics of different types of farms.
- Students can identify farm initiatives being adopted to improve agriculture operations.

HOOK

- Divide students into groups of 3-4 and give each group a copy of the *Farm Match-Up Game* pre-cut (see appendix A). Use the *Farm Match-Up Game* to introduce students to five different types of farms. In groups, students will match the name of the farms to their proper descriptions.
- Ask each group to put their matches off to the side for now. Students will revisit this after completing the activity to see if their choices have changed.

ACTIVITY

- Have the students navigate to the online Agri-Trekking Interactive Resource. If this is the students' first time using the resource, provide a quick tutorial of the layout.
- Instruct students to navigate to the "Farm Types" section and ask them to read about the five different types of farms featured in the resource. They may also wish to do additional research.

ACTIVITY CONT'D

- Revisit the matches the groups made during the *Farm Match-Up Game* and discuss as a class. Ask students: *Did you match the correct farm name and description? If yes, how did you know they were a match? If no, what should the correct match be?*
- Working individually or in pairs, have the students choose a county or assign one (Note: This activity works best if there is some variety in the counties being examined).
- Hand out a copy of the *Farm Design Guide* worksheet (see Appendix B). Inform students they will be planning a farm design for the county chosen or assigned.
- Instruct students to explore their chosen or assigned county on the Agri-trekking Interactive Resource. They may also wish to do additional research. Once they have done this, students will choose at least one of the five farm types found in Agri-Trekking to feature in their design: dairy, vegetables, greenhouse, grain or beef. Students will have to justify their choice. The farm chosen should make sense for the characteristics of the county.
- Ask students to complete the *Farm Design Guide* worksheet. Students will have to explain their reasoning for choosing to establish that farm type in the county.
- Provide an opportunity for students to trade farm designs, asking each other to point out potential problems and brainstorm solutions together.

ASSESSMENT

Assessment for Learning:

- Record anecdotal notes as students work in their groups during the *Farm Match-Up Game* to track what they know and what they still need more information about.

Assessment as Learning:

- Students can check their understanding of featured farm types by reviewing their matches in the *Farm Match-Up Game* after reading about the different farms in Agri-Trekking.

Assessment of Learning:

- Collect the *Farm Design Guide* worksheets to assess knowledge, understanding, communication, application and analysis. Conference with students to discuss their farm designs.

EXTENSIONS

Maps:

- Challenge students to draw maps of their farms to scale. Use real photos of farms, including aerial photos, for reference.

Create a Game:

- Give each student two index cards. On one card, students write the name of a county or city, with a point form description of the main physical and environmental features. On the second index card, students write a type of farm with a brief description of the farm features and initiatives related to it.
- Instruct students to place each set of cards in separate piles (one for city or county, the other for farm type). Pull one card at a time from each pile and place them side by side, face up. (Ex: Toronto, Dairy Farm).
- In small groups or as a class, ask students to share ideas about how a dairy farm would be established in Toronto. Allow students to be creative (Ex. Housing a Holstein (cow) in the CN tower). Discuss different characteristics of the city or county and the type of farm to see how those characteristics might impact the feasibility of the farm.

(Note: This game could also be played using a set of farm type index cards and a set of farm initiatives cards).

Farm Match-Up Game

<h1>Dairy Farm</h1>	<p>All of the equipment on this type of farm is washed and sanitized regularly. This type of farm produces products that are important to a healthy, balanced diet. You will find cows on this type of farm. Cows are kept in tie-stalls or free-stalls. The floors in barns are usually made of cement to provide easy clean up of manure. Every day, each cow on this type of farm produces an average of 30 litres of a consumable substance. (Can you guess what that substance might be?)</p>
<h1>Grain Farm</h1>	<p>Some types of crops on this farm are planted in the Spring, others in the Fall. Farmers must pay close attention to soil quality. They test their soil to uncover its nutrient levels. Farmers might improve soil quality by adding properly calculated amounts of fertilizer or manure. Farmers use big machinery like tractors and combines to plant and harvest crops. The major crops found on this type of farm in Canada are: wheat, canola, barley, corn and soybeans.</p>
<h1>Vegetable Farm</h1>	<p>On this type of farm, farmers wait until the Spring when snow has melted and the fields are dry before planting. Planting too early will compact the soil and reduce soil quality. Farmers also wait until the risk of frost is reduced before planting crops. Farmers on this type of farm must pay close attention to the soil and test it to uncover any nutrient deficiencies and to calculate how much fertilizer to apply.</p>
<h1>Beef Farm</h1>	<p>This type of farm can be a cow/calf farm or a feedlot. Cattle are born on a cow/calf farm. Here, they have a diet that consists mainly of grass, with access to minerals, vitamins and fresh drinking water. They spend most of their time grazing in fields or pasture. On a feedlot, cattle live in large, open pens. Cattle are very social animals and enjoy interacting with each other in the pens. Later in the animal's life, 90% of their diet is grains like corn or barley.</p>
<h1>Greenhouse</h1>	<p>The products produced on this farm require water, clean air, fertile soil and light. Pollination must occur for products to grow on this farm. Bees are the primary pollinators on this kind of farm. Products on this farm must be watered regularly. Sometimes automated, computerized watering systems are installed. On this type of farm, the environment is controlled. Temperature, moisture levels, drainage and light are all managed by the farmer.</p>

Farm Design Guide Worksheet

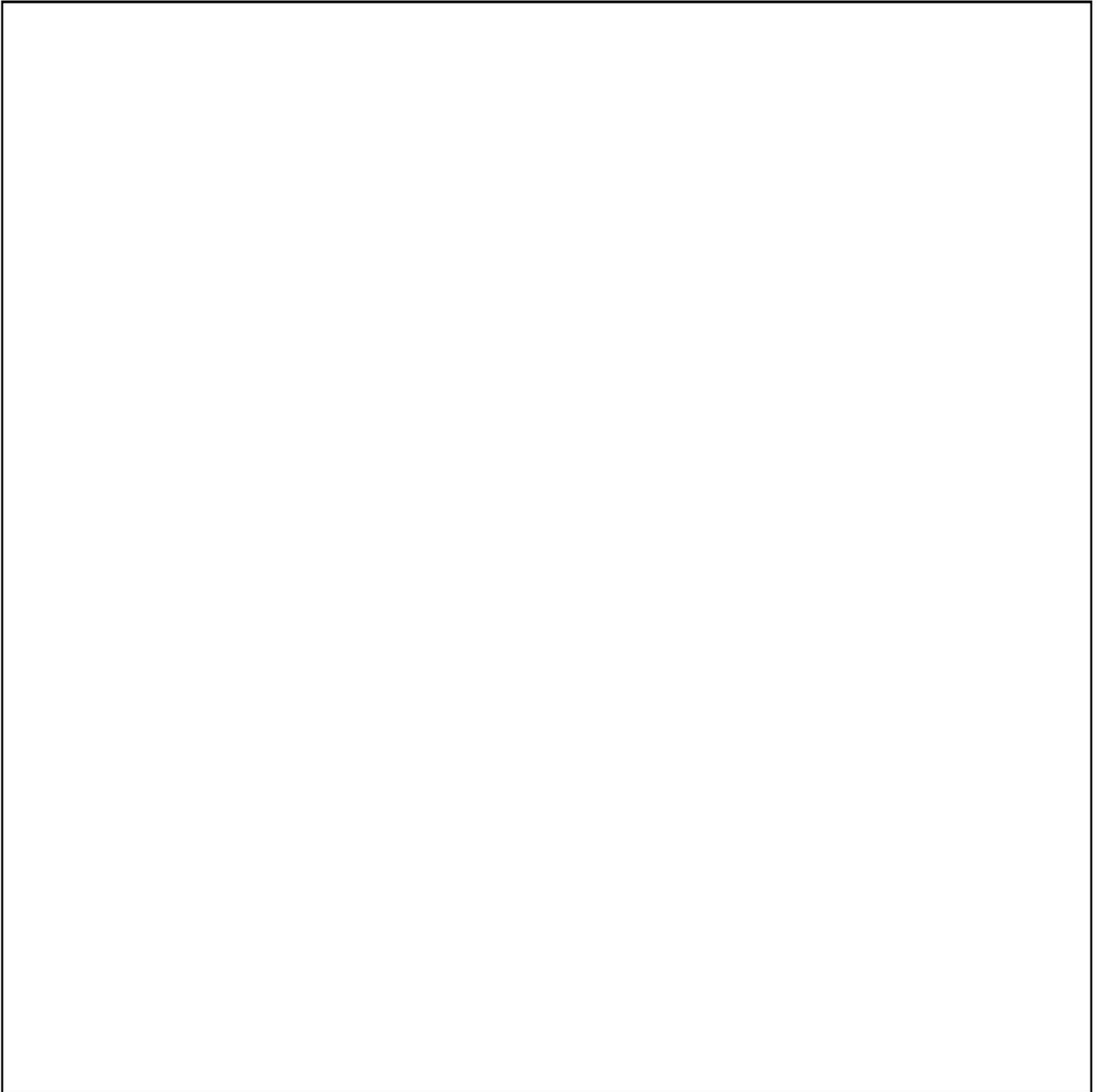
Create a farm design for your chosen or assigned county. Choose at least one of the five farm types featured on Agri-Trekking to be part of your design. Remember to consider the physical environment of the county and farm type when making your decisions.

Farm Type: _____ County: _____

Describe the environmental characteristics of the county (landscape, climate, population, soil quality, etc.):

Describe the characteristics of farm type you have chosen (products, land requirements, initiatives, potential problems/solutions, etc.):

Draw a map of your farm (be sure to include features of the physical environment, farm buildings, and a legend):



Answer the following questions on a separate sheet of paper:

1. Why did you choose to establish this type of farm?
2. What obstacles does the county's environment pose to your farm?
3. What sustainable solutions can you come up with to improve your farm?