CURRICULUM CONNECTIONS

History and Geography, Grade 7
A. Physical Patterns in a Changing World
   A1. Application: analyse some challenges and opportunities presented by the physical environment and ways in which people have responded to them.

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;
   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: Compare, Contract, Counties worksheet for each student

LEARNING GOAL(S)
- Students demonstrate an understanding and can analyse the physical environment they live in.
- Students will compare and contrast their local physical environment to the physical environments of other counties in Ontario.
- Students will analyse how the physical environment affects agricultural activity.
- Students can identify agricultural challenges and opportunities presented by different physical environments.

HOOK
Begin with a think/pair/share* activity and guide students through the activity as they start to think about the physical environment.

- Ask students to think about their dream environment. Prompt students with questions: What are the characteristics of that environment? Is it hot or cold? What are the challenges and opportunities in that environment?
- Ask students to think about the kind of house they would have in their dream environment. Prompt students with questions: What kind of food would you be able to grow or have access to? Would the population be large or small?

*Think/Pair/Share: Students will think about the answers to the questions on their own before sharing their ideas with a partner. Once students have had time to discuss, ask for volunteers to share with the class.
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.
- Inform students they will be using the Agri-Trekking Resource to take an in-depth look at your local county. (Do this activity as a class or have students work independently before coming together to discuss as a group).
- Have students use the map of Ontario to find your county and read through the information available.
- Discuss the characteristics of the county’s physical environment with students. Ask: *How has the physical environment affected the settlement, population, industry and growth of the county?*
  *Has the physical environment been altered by human settlement?*
  *What effect(s) does human activity have on the county?*
- Working individually or in pairs, ask each student to complete the *Compare, Contrast, Counties* worksheet (see Appendix A) by navigating the map of Ontario featured in Agri-Trekking. Assign three counties you would like students to examine (i.e. Northern Ontario vs. Southern Ontario) or let students decide.
- Optional: Ask the students to transfer the information they collected from their *Compare, Contrast, Counties* worksheet onto a three part Venn diagram for a better visual comparison.

ASSESSMENT

Assessment for Learning:
- Record anecdotal notes during the think/pair/share discussion between students to track what they know and what they still need more information about.
- Use the Local County Agri-Trekking activity to assess students’ knowledge and understanding of the local county and terminology before moving on in the lesson.

Assessment of Learning:
- Collect *Compare, Contrast, Counties* worksheets. Assess for knowledge, understanding, communication and analysis.
- If students transfer the data from their *Compare, Contrast, Counties* worksheet onto a three part Venn diagram, assess for knowledge, understanding, communication, application and analysis.

EXTENSIONS

Conduct an experiment:
- Collect several pots and fill them with soil (potting soil, or local soil samples). Plant hardy, quick germinating seeds in the pots (i.e. beans). Name each pot as a different county. Expose each pot to different environmental conditions to mimic the conditions in the different counties. For example: Essex County has the warmest temperatures; place the Essex pot under a heat lamp or near a furnace vent. Lambton County has clay soil with poor drainage; do not poke holes in the bottom of the Lambton pot. Middlesex has rich soil; add compost or fertilizer to that pot. Mimic the different conditions in as many different counties as you can.
- Hypothesize, observe, and report the results.
- Discuss with students the other types of physical environments that might exist in counties throughout Canada. *What are the physical characteristics in counties on the East Coast, West Coast, in the North?*
- As a class, brainstorm sustainable solutions to an environmental challenge presented in one of Ontario’s counties.

County Spokesperson:
- Students conduct in-depth research on one county, then act as county spokesperson or King/Queen of the county, incorporating dramatic arts, to present their findings to the class.
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