

UNDERSTANDING ACTIVE TRANSPORT

75 MINUTES
CGF3M, CGR4M, CGG3O

A high school lesson plan provided by the University of Guelph

This activity introduces the concept of Active Transportation, a popular topic in community planning across North American communities. Students will learn about the principles of active transportation through activities, videos, discussions and readings. Several activities are designed for hands on learning.

Curriculum Alignments and Expectations

- Analyse and evaluate the impact of human life on the environment, interrelationships among the environment, the economy, and society; evaluate a variety of approaches to resolving environmental and resource management concerns on a local, regional, and national scale.
- Use the methods and tools of geographic inquiry to locate, gather, evaluate, and organize information about environmental and resource management issues and concerns;
- Evaluate the influence of human systems on patterns of travel and tourism and, conversely, the influence of travel and tourism on human systems
- Use the methods and tools of geographic inquiry to locate, gather, evaluate, and organize information; Analyze and interpret data gathered through research and investigation, using a variety of methods and geotechnologies
- Communicate the results of (geographic) inquiries, using appropriate terms and concepts and a variety of forms and techniques

Learning objectives

- Learn concepts of land use planning, including active transportation, walkability, and connectivity
- Learn how to evaluate neighbourhoods based on active transportation concepts
- This activity speaks to environmental science (air pollution and sustainability), geography (land use planning, community development), and health (disease prevention and air quality)
- Understand the consequences and benefits of different modes of transportation
- Apply knowledge of transportation benefits/ consequences to real life choices/scenarios

Assessment Strategies and Success Criteria

- Peer instructors - have students provide feedback to peers. Did they consider all aspects of the interrelationship between humans, environment, society, etc?
- Evaluate the student responses to questions. Consider their knowledge of the impact of humans and human systems on the environment. Adjust teaching as required prior to moving on to the next activity.
- Think-pair-share
- Quizzes

Cross Curricular Links

- Career Studies- Communicating with Others and Interpersonal Relations
- Career Studies- Identifying Trends and Opportunities
- Fundamentals of Economics – Scarcity and Choice
- Environmental Science – Human Health and the Environment

Materials

- Equipment to show videos
- Computer lab (not required)

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TEACHER NOTES

1. Begin by having read over the background resources to familiarize yourself with active transportation, walkability and complete streets. Please refer to background documents 1-3.
2. Survey the class to determine how each student got to school today. Answers will likely include car, bus, bike, walking. Have final numbers displayed for all students to see.
3. Discussion Questions. Based on the information from #2, ask students the following questions:

a) Which form of transportation is the most widely used? Why?

Bus may be used frequently if many students live further away (especially in rural areas). They may also be used if car transportation is not available.

Cars may be used frequently by those who get a ride with friends or parents. They are likely used for convenience and time efficiency

Walking/biking/skateboarding may be used by those living closer to the school and may be used more in the warmer months.

b) Which form of transportation is best for the environment? Is this one of the most commonly used types of transportation in your class?

Cars are clearly the worst option for the

environment. Many may point out that public transportation is a good option for the environment, however, it should be pointed out that active transportation (any form of human powered transportation) is the best option as it does not release any harmful pollutants and reduces road congestion.

4. Introduce the concept of 'active transportation' (see background resources)

Video 1 – Active transportation
Hand-outs: You may want to print out some or all of the background reading and have students familiarize themselves with the key concepts surrounding active transportation.

Note: These can be done in reverse order.

Video can be found at: <http://ontarioplanners.ca/Advocacy/Healthy-Communities-bull-Sustainable-Communities>

5. Active Transportation worksheet and discussion

Using the categories of health, social, transportation, environment, and economy, describe some of the benefits of active transportation. You may want to break the class into five groups, each working on one topic. Discuss results.

6. Turn on Video 2: Walkability, followed by Video 3: Complete Streets.

Note that video 3 will be important for

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completing #8.

Videos can be found at: <http://ontarioplanners.ca/Advocacy/Healthy-Communities-bull-Sustainable-Communities>

7. Video discussion

Based on these videos, are there any additional benefits that you would add to the chart? What about any barriers (e.g. consider those with disabilities or those in rural communities)?

8. Analyze your school's neighbourhood. Tell students they are going to analyze the area around the school and make recommendations that would encourage people to use active transportation to get to school.

9. Students can work in groups to identify areas where improvements could be made for: cyclists, pedestrians, public transit users. As a class discuss the issues for each user.

10. Students should be encouraged to draw a map of the neighbourhood and identify the 'problem' areas. Each problem area should identify which 'user(s)' it is a problem for and what the recommendation for improvement would be.

11. Suggestion: Book a computer lab and allow students to use google maps/ street view and/or have areas of the local community printed off for student groups to assess

(provide a different area to each group to avoid duplication).

12. Extension activity: Design a public service announcement that encourages people to reduce air pollution by choosing to use active transportation or another sustainable transportation method (such as carpooling, bus, etc.).

13. Extension activity: Have students comment on the walkability of their neighbourhood. Using the resource www.walkscore.com, students can enter in their home address (or another address) to determine the 'walkability score' of that neighbourhood. (Note: this website does not grab all services in an area, so in many cases, there should be a disagreement with the score. This is why it should be an area they are familiar with). Students can be asked the following questions:

- Do you agree with the score? Why or why not?
- What can be done to improve the walkability of this neighbourhood?

Additional Resources

Background reading:

- Public Health Agency of Canada (2014). Mobilizing Knowledge on Active Transport. Retrieved from <http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/pa-ap/assets/pdfs/mkat-eng.pdf>
- Health Canada (2002). Air Pollution and

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Active Transportation. Retrieved from <http://publications.gc.ca/collections/Collection/H46-2-02-285E.pdf>

- Ontario Professional Planners Institute (2012). Healthy Communities and Planning for Active Transportation: Planning and Implementing Active Transportation in Ontario Communities – A Call to Action. <https://ontarioplanners.ca/OPPIAssets/Documents/Calls-to-Action/Planning-and-Implementing-Active-Transportation-in-Ontario-Communities-June-21.pdf>

Background Videos:

- [OntarioPlanners]. (2013). Active Transportation - Planning 101 [Video File]. Retrieved from <https://www.youtube.com/watch?v=dT93bnZk7U8>
- [OntarioPlanners]. (2013). Walkability - Planning 101 [Video File]. Retrieved from <https://www.youtube.com/watch?v=EZejDwjNxRg>
- [OntarioPlanners]. (2012). Complete Streets - Planning 101 [Video File]. Retrieved from <https://www.youtube.com/watch?v=sc-GKNeclbg>

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