

ACTIVE AND SUSTAINABLE SCHOOL TRANSPORTATION

LESSON PLANS FOR THE ONTARIO CURRICULUM

Grade 5
Social Studies



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This lesson plan can help teachers and students with the Curriculum/Ecological Literacy section of their EcoSchools program by engaging students in classroom lessons on the environmental, health and social benefits of making active and sustainable travel choices.



Definition of “ASST”

What is Active and Sustainable School Transportation (ASST)?

Active Transportation refers to any mode of human-powered transportation, including but not limited to:

- Walking/running
- Cycling
- Scootering
- Skateboarding
- In-line skating
- Snowshoeing
- Skiing
- Travel with the use of mobility aids, including motorized wheelchairs and other power-assisted devices moving at comparable speed



Sustainable Transportation refers to modes of transportation of people or goods that meet the needs of the present without compromising the ability of future generations to meet their needs. All modes of active transportation are sustainable. Sustainable transportation also includes mechanized modes of transportation which use energy efficiently:

- School bus
- Carpooling
- Public transportation (bus, subway, light rail, etc.)



Other terms

School boards, public health departments and community advocates have long promoted Active and Sustainable School Transportation through various programs. Terms and phrases commonly associated with such programs include:

- Active and Safe Routes to School
- Active School Travel
- School Travel Planning
- Walk to School, Bike to School
- Micro-mobility



Grade 5 – Social Studies

BIG IDEA: To be active, effective citizens, Canadians need to understand their rights and responsibilities as well as how governments work.

Social Studies: People and Environments: The Role of Government and Responsible Citizenship

Overall Expectations – By the end of Grade 5, students will:

- B1. **Application:** assess responses in governments in Canada to some significant issues, and develop plans of action for governments and citizens to address social and environmental issues;
- B2: **Inquiry:** use the social studies inquiry process to investigate Canadian social and/or environmental issues from various perspectives, including perspective of the level (or levels) of government responsible for addressing the issues
- B3: **Understanding Context:** demonstrate an understanding of the roles and key responsibilities of citizens and of the different levels of government in Canada.

Specific expectations:

- B1.3 create a plan of action to address an environmental issue of local, provincial, and or national significance;
- B2.1 formulate questions to guide investigations into social and/or environmental issues in Canada from various perspectives, including the perspectives of the level (or levels) of government responsible for addressing the issues;
- B3.1 describe the major rights and responsibilities associated with citizenship in Canada;
- B3.7 describe some different ways in which citizens can take action to address social and environmental issues.

These lesson plans also address curricular expectations related to Language.

Language: Writing

Overall Expectations – By the end of Grade 5, students will:

- 1. generate, gather, and organize ideas and information to write for an intended purpose and audience;
- 2. draft and revise their writing, using a variety of informational, literary, and graphic forms and stylistic elements appropriate for the purpose and audience;
- 3. use editing, proofreading, and publishing skills and strategies, and knowledge of language conventions, to correct errors, refine expression, and present their work effectively;

Specific expectations:

- 1.1 identify the topic, purpose, and audience for a variety of writing forms (*e.g., a poem or song on a social issue for performance by the class; a formal letter to the teacher outlining their opinion on eliminating soft drinks from the school vending machine; an article explaining the water cycle and including a flow chart, for an online student encyclopedia*)
- 1.3 gather information to support ideas for writing, using a variety of strategies and a range of print and electronic resources (*e.g., interview people with knowledge of the topic; identify and use graphic and multimedia sources; keep a record of sources used and information gathered*)
- 2.4 establish an appropriate voice in their writing, with a focus on modifying language and tone to suit different circumstances or audiences (*e.g., use a serious tone in a letter to the editor, a humorous tone in a letter to a friend*)
- 3.7 use a range of appropriate elements of effective presentation in the finished product, including print, script, different fonts, graphics, and layout (*e.g., use legible printing and cursive writing; include a labelled diagram, photographs, and a beginning glossary of terms in a read-aloud information book for younger children; use a formal letter layout for a letter to a public official*)

Lesson 1: What is ASST?

Overview

Students are introduced to concepts related to active and sustainable school travel (ASST). Through a card sorting activity, students come to the understanding that ASST is an environmental and responsible citizenship issue.

Curriculum Expectations

Social Studies, Strand B: People and Environments: The Role of Government and Responsible Citizenship

Overall Expectations – By the end of Grade 5, students will:

- B2: **Inquiry:** use the social studies inquiry process to investigate Canadian social and/or environmental issues from various perspectives, including perspective of the level (or levels) of government responsible for addressing the issues.

Specific Expectations: B2.1.

Materials Provided in Lesson

BLM – Grade 5, Lesson #1 – 18 Modes of Transportation

Website and video links

Materials Provided by Teacher

Chart paper

Blank paper

Coloured markers

Teacher Notes

The Ontario curriculum references three levels of government. In some areas, the regional government also plays an important role.

Additional Information

Resources on Government Roles and Responsibilities

Video: “Who Does What?”

TVO, 4:24 min

<https://www.youtube.com/watch?v=AVE3OsR5W-0>

Take a closer look at the responsibilities of the federal, provincial and municipal governments and find out who does what.

Game and Lesson Plan: “Canada’s Three Levels of Government”

Legislative Assembly of Ontario

<http://educationportal.onlta.on.ca/en/teach-learn/youth/about-youth/canadas-three-levels-government>

Lesson #1: What is ASST?

MINDS ON – QUESTION FOR STUDENTS

Time

“How did you travel to school today? What are the different “modes” of transportation that students and families use? Do some use more than one mode of transportation to get to school?”

5 min

ACTION

Card Sorting Exercise

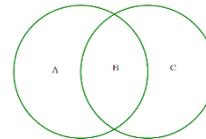
Provide a copy of *BLM – Grade 5, Lesson #1 – 18 Modes of Transportation*.

Divide the students into groups of 3 or 4. Ask them to brainstorm about potential ways to sort the 18 different modes of transportation into two (2) separate groups.



Quick Check In (5 minutes): What did all cards have in common? How did each group decide to sort their modes of transportation?

Now ask students to sort using a Venn Diagram with an overlap in the middle. What might the middle overlap represent?



15 min

TEACHER PROMPT: Which sections of the Venn Diagram includes modes of transportation that are better for the environment?

Example: Section A of the Venn Diagram may include human powered transportation (e.g., walking, cycling, wheelchair). Section C may include private cars and trucks. Section B may include carpooling and public transit, which are motorized modes, but more environmentally sustainable than private cars.

EXPLICIT TEACHING

What are the benefits of ASST?

Health – provides an opportunity to be physically active on a regular basis

Social – accessible to Canadians and increases social interactions

Transportation – reduces road congestion

Environmental – environmentally-friendly and can contribute to reductions in greenhouse gas emissions

Economic – ASST saves money on gas and parking

15 min

EXPLICIT TEACHING (CONTINUED)

Select from the following videos:

Video: “Active Transportation- Planning 101”

Ontario Professional Planners Institute, 2:14 min

<https://www.youtube.com/watch?v=dT93bnZk7U8>

Active transportation is non-motorized travel - on foot, by bicycle, using a wheelchair, rollerblading or even skateboarding. It is sometimes referred to as alternative transportation but there is really nothing alternative about it. Active transportation forms a vital part of healthy and sustainable communities.

Video: “Active Transportation and Health”

Produced at McGill University, 3:13 min

15 min

<https://www.youtube.com/watch?v=gaQHWyNCAAk>

This video explains how inactivity has become a burden on the Canadian economy and explains the physical, mental and social health benefits of active transportation. It presents active transportation as a solution to the problem and features three policy recommendations for local governments. The video was created by Jana Bawaba, Lesley Fordham, Elizabeth Pis, and Nicolas Vachon.

Video: “Sustainable Transport”

Produced by Banyule City Council, Australia, 2:14 min

<https://youtu.be/T9j42-V5cr0>

CONSOLIDATION

What levels of government are involved with transportation? What levels of government do the benefits of ASST touch?

15 min

EXTENSIONS/ENRICHMENT

Drama and language extensions

Have students create their own video to explain what ASST is, and the benefits of it.

Divide students in groups and ask them to create a skit about ASST from the point of view of:

Car dealer	Minister of Health	Environmental activist
Parent	Student	Local MP
MPP	Councillor	Principal

After students present their skits, discuss the different perspectives about ASST.

BLM – Grade 5, Lesson #1 – 18 Modes of Transportation





Lesson #2: Making a Difference – Our Responsibility

Overview

Students explore the rights and responsibilities of Canadian citizens, with respect to social and environmental issues. They suggest actions that they can take in their family, their school and their community.

Curriculum Expectations

Social Studies, Strand B: People and Environments: The Role of Government and Responsible Citizenship

Overall Expectations – By the end of Grade 5, students will:

- B1: **Application:** assess responses in governments in Canada to some significant issues, and develop plans of action for governments and citizens to address social and environmental issues
- B3: **Understanding Context:** demonstrate an understanding of the roles and key responsibilities of citizens and of the different levels of government in Canada

Specific Expectations: B1.3, B3.1, B3.7

Materials Provided in Lesson

Website and video links

Materials Provided by Teacher

Chart paper
Blank paper
Coloured markers

Teacher Notes

This lesson references rights and responsibilities of citizens, a status in law which not all students have. Other types of status include: permanent resident; child of parents with a temporary work permit or study permit; refugee claimant; non-status; visitor.

Additional Information

Website: Active and Safe Routes to School (Canada)

<http://www.saferoutestoschool.ca/programs>

Website: Walk Bike to School (United States)

“50+ Event Ideas”

<http://www.walkbiketoschool.org/get-set/event-ideas/50-event-ideas>

Highlight! Set a goal to symbolically walk or roll towards a destination or goal – e.g., a nearby city or landmark, across Canada, or the length of the Great Wall of China. Log the kilometres which students travel by active and sustainable modes on the trip to/from school, and/or during walking and rolling activities scheduled during the school day.

Lesson #2: Making a Difference – Our Responsibility

MINDS ON – QUESTION FOR STUDENTS

Time

What are your responsibilities in your home? Your school? Your community?

10 min

ACTION

Review the rights and responsibilities of citizenship, especially related to protection of the environment:

Study Guide: “Discover Canada” (page 9)

Published by Immigration, Refugees and Citizenship Canada

<http://www.cic.gc.ca/english/pdf/pub/discover.pdf>

Website: “In My Language: Rights and responsibilities of citizenship”

20 min

Published by OCASI

<http://english.inmylanguage.org/article.aspx?docid=2272174&cat=CITRIGHTRESPONS>

“Citizenship responsibilities include: “Protecting and enjoying our heritage and environment — Every citizen has a role to play in avoiding waste and pollution while protecting Canada’s natural, cultural and architectural heritage for future generations.”

THINK – PAIR – SHARE

Have students brainstorm different ways in which they can take action to address environmental issues. Then have students work in pairs to discuss their ideas. Provide each student with post-it notes to present their ideas. Post ideas on accessible area on the classroom and students can have a quick gallery walk.

20 min

CONSOLIDATION

Highlight ASST-related ideas put forward by students. Tell students that in the next class they are going to design and plan an ASST challenge for students. This can be for the class or school-wide.

10 min

EXTENSIONS/ENRICHMENT

Advanced students can research different ASST initiatives, with resources provided under “Additional Information” as a starting point.

Lesson #3: Students Take the Challenge!

Overview

Students develop a Challenge for students in their school to address the area of ASST as a local environmental issue.

Curriculum Expectations

Social Studies, Strand B: People and Environments - The Role of Government and Responsible Citizenship

Overall Expectations – By the end of Grade 5, students will:

- B1: **Application:** assess responses in governments in Canada to some significant issues, and develop plans of action for governments and citizens to address social and environmental issues.

Specific Expectations: B1.3

Materials Provided in Lesson

Website and video links
BLM – Grade 5, Lesson #3 – Classroom Travel Survey
BLM – Grade 5, Lesson #3 – ASST Distance Log

Materials Provided by Teacher

Chart paper
Blank paper
Coloured markers

Teacher Notes

- The Challenge will take place outside of the lessons in this learning unit.
- Take into consideration the time of year when the Challenge will take place, and likely weather conditions.
- Students may decide to complete their Challenge more than once throughout the year, and compare participation and success rates.
- Make sure to inform your school's Eco Team and to document your Challenge for your school's EcoSchools portfolio (if applicable).

Additional Information

Review ideas for Challenges in *Lesson #2 – Additional Information*, and find links to online distance calculators in *Lesson #3 – Extensions / Enrichment*.

These resources may be useful for communicating with parents about the benefits of ASST:

- **Handout: “Quick Facts for Parents: Learning about Active Transportation, including Cycling”, by Province of Ontario**
<http://edu.gov.on.ca/eng/curriculum/elementary/transportfact.pdf>
- **Video, “Get Fit!”, by Peel District School Board & partners, 5:05 minutes**
https://youtu.be/kHDgSM_nsPQ
- **Video, “Academic Benefits”, by Peel District School Board & partners, 2:54 minutes**
<https://youtu.be/lcfMR1kBBZg>

Lesson #3: Students Take the Challenge!

MINDS ON – QUESTION FOR STUDENTS

Time

“How do you prefer to travel to school, and around your community?”

Watch video and discuss.

Video: “Stepping It Up”

Smart Commute, 4:13 min

https://www.youtube.com/watch?v=r59_rzKuAMA

5 min

ACTION

Revisit sticky notes from gallery walk in Lesson #2.

Decide which Challenge to undertake as a class. How long will it last?

Together develop a plan making sure to include:

- Goals
- Timeline
- Safety concerns
- Tracking
- Parent Contact
- Principal permission

30 min

CONSOLIDATION

Set a date as a class for when the ASST challenge will commence.

10 min

EXTENSIONS

Mathematics: Number Sense and Numeration; Measurement; Data Management and Probability

BLM – Grade 5, Lesson #3 – ASST Distance Log and BLM – Grade 5, Lesson #3 – Classroom Travel Survey can be used to track distances travelled and participation overall. Students can use different methods to calculate the distance they travel and to display participation data.

These online calculators help students measure the environmental, health and financial benefits of ASST, and facilitate friendly competition too!

- **iSchoolTravel:** <http://ischooltravel.org/>
- **Bike Walk Roll:** <http://bikewalkroll.org/>

BLM – Grade 5, Lesson #3 – Classroom Travel Survey

Classroom Travel Survey

Classroom #

Which Trip: Check one:

Teacher name:

Trip TO School

Date survey begins:

Trip FROM School

	Monday	Tuesday	Wednesday	Thursday	Friday
Walk (all or partway, at least one block)					
Mobility aid (e.g., wheelchair)					
Bicycle					
Scooter, Skateboard or other					
School Bus					
Public Transportation (e.g., bus, subway, ferry)					
Carpool (more than one family)					
Total ASST (Active and Sustainable School Transportation)					
Car (not including carpooling)					

Lesson #4: Students Reach Out

Overview

Students engage with local government or decision-makers on an issue related to Active and Sustainable School Transportation.

Curriculum Expectations

Social Studies: Strand B, People and Environments - The Role of Government and Responsible Citizenship

Overall Expectations – By the end of Grade 5, students will:

B3: **Understanding Context:** demonstrate an understanding of the roles and key responsibilities of citizens and of the different levels of government in Canada

Specific Expectations: B3.7

Materials Provided in Lesson

Website and video links

Materials Provided by Teacher

Chart paper

Blank paper

Coloured markers

Teacher Notes

Additional Information

Students can carry out a “Walkability Audit” to assess their school and neighbourhood. This is one template, produced by the United States Department of Transportation:

<http://www.nhtsa.gov/staticfiles/nti/pdf/8015-WalkabilityChecklistForYouth.pdf>

Lesson #4: Students Reach Out

MINDS ON – QUESTION FOR STUDENTS

Time

“Who makes a school, and a neighbourhood, safe and comfortable for active and sustainable transportation?” View video and discuss.

Video: “Safety is Everyone’s Responsibility”

10 min

Peel District School Board, 5:18 min

https://youtu.be/A2q10Z_Uupc

EXPLICIT TEACHING

Reinforce knowledge which emerged in brainstorm and add to it. E.g., “A neighbourhood is safer and more comfortable for ASST when”:

- Students follow the rules.
- Drivers drive safely and pay attention.
- Crossing guards protect students.
- The school administration maintains the schoolyard and bike racks.
- The municipal and/or regional government maintains streets and sidewalks, so that there is enough room for walking, cycling and public transit.
- The municipal, regional and provincial governments establish traffic laws and set speed limits to prevent motorized traffic from moving too quickly or unpredictably.
- Police enforce laws and speed limits.

10 min

ACTION

Ask students to identify the things about their school or neighbourhood that support Active and Sustainable School Transportation. Who is responsible for these? Who is responsible for things that need to be improved?

25 min

Tell students to write a letter to their school, their city councillor, their member of Provincial Parliament (for examples), thanking them for making their neighbourhood safer and/or asking for help to make it safer.

EXTENSIONS / ENRICHMENT

Carry out a Walkability audit to investigate the school and neighbourhood more thoroughly. A template is available under “Additional Information”.