

Environmental Footprint— TRANSPORTATION



Learning Environment:

Outdoors

Prep Time: 15 minutes

Length of Lesson: 1 hr

Staffing: 2 adults

Materials: All materials can be borrowed from the Georgian Bay Biosphere Reserve 705-774-0978.

GRADE

Overall Expectations

Specific Expectations

1

1s1. Assess the role of humans in maintaining a healthy environment.

1s11. Identify personal action that they themselves can take to help maintain a healthy env. for living things.

2

2s1. Assess ways in which humans have an impact upon animals and the places where they live.

2s12. Identify positive and negative impacts that different kinds of human activity have on animals and where they live .

Time	Activity	Guiding Concept	Materials Needed
5 minutes	Getting to School and Other Places	Transportation means moving from one place to another...there are many types of transportation!	none
10 minutes	Getting Around: the Good, the Bad, and the Ugly	Some types of transportation are worse for the environment than others. We can make choices to keep the environment healthy.	Transportation cards
30 minutes	Walk About: Neighbourhood Investigation	Looking at the choices in our own community	Clipboards, observation worksheets
20 minutes	Show and Tell	What does our schoolyard and community tell us about our transportation choices?	none
20 minutes	Our "Transportation Aspirations"	What would our school look like in a perfect "green" world?	Paper and art materials (pencil crayons, crayons, markers, etc.)
5 minutes	Transportation Wrap-Up: Count Yourself In!	Collectively it is easy to make a BIG difference. Taking action to realize the potential of an individual.	>Environmental footprint tree

GETTING TO SCHOOL AND OTHER PLACES

1. Discuss how the students get to school. Make a list titled "how we get around" using the students answers.
2. Ask students to name other ways that humans move around. Add these ideas to the list. Explain that all the ways that humans get around are forms of *transportation*.

GETTING AROUND: THE GOOD, THE BAD AND THE UGLY

1. Give each student a "transportation card". Have students move around the class acting out their cards but not talking. Once they have met another person who is acting out the same type of transportation as them (there will be two of each), they will team up.
2. Once everybody is teamed up, have them make sure that they are all partnered up correctly.
3. Discuss each form of transportation and why it is better or worse for the environment. Start with the question "what are some things that make transportation bad for the earth?" (*They use energy (gas/batteries) and produce pollution*).
4. Using the points brought up from the discussion, have the class divide themselves based on how "green" they are. On one side of the class will be the students who acted a method of "green" transportation (does not use gasoline, produce pollution or make noise). The other side of the class will be those that use energy (batteries/gas) and make pollution.
5. Discuss things that students could do to shrink their transportation footprint.
6. Make a list of these ideas for later use with the "environmental footprint tree".

WALK ABOUT: NEIGHBOURHOOD INVESTIGATION

1. Tell the students that they will be taking a walk around the neighbourhood. Separate the class into four groups. The groups will be in charge of different things during the walk.

Group 1: Think about what we would miss if we were driving. Make sure to notice all the small things (plants, animals, sunshine, trees, friends, etc.).

Group 2: Count 20 vehicles that pass by and observe the number of people in each one. If possible, have the students also make note of the type of vehicle (truck, big/small car, van, etc).

Group 3: Make a tally of the number of cars, buses, trucks, trains, bikes, and pedestrians that they see. Also notice bike racks and parking lots.

Group 4: Observe where in the area you can walk, bike, rollerblade, etc. Are there big shoulders on the road? Are there any trails?

2. Give each group a clipboard (provided) and some paper so that they can write down their observations. Charts for each group are provided to help the students record their observations.

3. Take the students on a walk (20 minutes) around the neighbourhood or school area.

SHOW AND TELL

1. After the walk, have each group give the class a "show and tell" presentation about what they learned about their community on their walk. Things to talk about could include...

GROUP 1: You could miss plants, animals, trees, sunshine, friends, conversations, scenery, etc.

The moral: fast is not everything.

GROUP 2: Why would it be better if more people car-pooled? Why are more people not carpooling? What are some situations where students could car-pool?

GROUP 3: What were some good things you noticed (small cars, people walking?) How many bike racks/bus stops? What changes could be made that would be better for the environment? (smaller cars, more walkers, bike paths/racks, carpooling, etc.)

GROUP 4: Could any more trails be created? Could a bike lane fit on the road? Do you think that if more trails were built then more people would walk or bike?

OUR 'TRANSPORTATION ASPIRATIONS'

1. On the chalkboard, write: "To shrink our transportation footprint, our future school could have_____".

2. Have the students respond to the statement by drawing a picture of an aspect of "green transportation" that could be part of an ideal "future school". Encourage them to use ideas from the "show and tell" discussion. If they are struggling to think of an idea, below is a list to choose from.

- Bus stops
- Bike racks
- Bike trails in the forest
- Bike lanes on the road
- People carpooling
- People walking
- Smaller cars
- Less pollution in the air
- People biking/rollerblading/skateboarding
- Less cars in the parking lot
- They can also add other environmentally friendly aspects to their pictures! (recycling bins, gardens, etc.)

Note: This activity can be done in several ways. For a younger age, or a less complex option, students can simply draw pictures on individual pieces of paper.

Or, ensure that every student is drawing a unique idea and make a book out all the student's pages. Some students could be in charge of drawing a cover page and giving the book a title.

For an older age or more involved option, have each student draw a *map* of the school and surrounding area, labeling all the things that could be added or changed to give the school a smaller transportation footprint. Tell them that this will be an imaginary "future school", in a perfect world.

Finally, to make this more of a group activity, assign each student an aspect of "green transportation" and have them work together to draw a large map of the "future" school on newsprint paper. You can help them by first drawing the outline of the school.

TRANSPORTATION WRAP-UP: COUNT YOURSELF IN!

From the list of transportation conservation ideas, have students choose 5 ways that they can shrink their transportation footprint.

Encourage students to do these things. When they do, have them fill out a leaf and put it on the Environmental Footprint Tree.

COMMUNITY AND HOME ENGAGEMENT OPPORTUNITIES

- Ask students to be observant the next time they are walking or driving around town with their parents. Did they see any good places to ride a bike, or any places that could use bike paths or bike lanes?
- Talk to the students about the possibility of setting up a walking school bus with classmates in their neighbourhood

ONLINE RESOURCES

- In the online game "Tripsters", kids get to choose a character and decide how the character gets around throughout the course of their day. Each travel decision is a chance to earn points for health, environment, and saving money. <http://www.travelsmart.ca/tripsters/>
- Figure out the distance from your school to home, calories burned, cost of car fuel, amount of fuel and greenhouse gas emissions using the kids calculator at <http://www.ischooltravel.org/tools/calculator/>
- Check out Green Education Foundation's free sustainable transportation related lessons and transportation tips at <http://www.amtrak.com/whistle-stop/eco-transportation-education-from-green-education-foundation>