

MULTICULTURAL LESSON PLAN: Transportation

GRADE: 6

DISCIPLINE: Science and Technology/Transportation

MINISTRY OF EDUCATION EXPECTATIONS: By the end of Grade 6, students will:

- make use of the physical and aesthetic properties of natural and manufactured materials when designing a product;
- show awareness of the effect on a design of the unavailability of specific materials (e.g., the design of a pair of scissors may need to change if only plastic is available instead of metal);
- write a plan outlining the different materials and processes involved in producing a product (e.g., resources, equipment, marketing);
- identify various criteria for selecting a product (e.g., safety, reliability, durability);
- describe modifications that could improve the action of a variety of devices in the home (e.g., can opener, nutcracker, clothesline that uses pulleys);
- show an understanding of the impact of moving mechanisms (e.g., trucks, snowmobiles) on the environment and on living things (e.g., loss of natural habitat);
- compare qualitatively the effort required to move a load a given distance using different devices and systems;
- describe how different devices and systems have been used by different cultures to meet similar needs (e.g., irrigation systems for farms, temporary shelters, bicycles).

MULTICULTURAL MESSAGE: The teacher will show the importance of various types of transportation for people of all countries around the world.

ACTIVITY:

Preparations:

- 1) Put students into groups and tell them to brainstorm different types of transportation.
- 2) After set time, elicit responses from students and board them.
- 3) Show students photos of following vocab list and elicit answers and then board the correct names.
- 4) Put students into pairs and get them to do discussion questions.
- 5) Assign one question as written homework.
- 6) Alternatively, Questions #10 and #11 can also be used as homework and students can present in next class.

Transportation for the Nation!

Vocabulary

*automobile inline skates balloon
skate board plane helicopter
jet foil hovercraft bus
train streetcar yacht
ferry bicycle surf board
sailboard motorcycle scooter
space shuttle cruise ship sailboat
sail plane hang glider ultralight
subway cargo ship*

- 1) Look at the vocabulary list at the top of this page. Make sure that you and your partner understand what each type of transportation is?
- 2) Which types of transport would you like to take?
- 3) Which of the types of transport from the vocabulary list have you taken?
- 4) What is the most important type of transportation in the world? Why?
- 5) Have you ever driven or ridden a snowmobile? What other types of winter transportation are there.
- 6) Do you think it's safe to drive a car or ride a motorcycle in Canada? Did you ever have an accident? If yes, tell a classmate about it.
- 7) How do you travel to school every day? How long does it take?
- 8) What types of transportation from the list are there in Thunder Bay? Have you seen any other kind?
- 9) What types of transportation are there in Canada?
- 10) What special types of transportation are used in Toronto? Vancouver? Hong Kong? Tokyo? Paris? Do this research with a partner for homework and present to the class.
- 11) What negative effects could the different transportation types listed above have on the environment? Discuss and list with your partner.
- 12) With your partner, imagine a new kind of transportation that is good for the environment and is suitable for use in Canada. Give details about the materials used to build your new vehicle. The materials must be those found in Canada. Draw a design of it and write a description of how it works.

Discussion: Teacher acts as moderator and reviews concepts raised by discussion questions.

EVALUATION: Formal marks can be given for types of transport in foreign cities (#10), environmental impact question (#10), transport design project (#12), and for written assignments on any question. For question #10, the teacher can assign different cities to different individual students, pairs, or groups.