



BUILDING FUTURES IN MANITOBA

TEACHING UNIT

General Topic:	Economic Citizenship
Unit Title:	The Economy and the Environment
Grade Level:	Grade 7
Recommended Curriculum Area:	Social Studies
Recommended Curriculum Area:	Language Arts



The Building Futures Project is sponsored across Canada by IG Wealth Management. CFEF extends our appreciation to IG Wealth Management for their generous support.

Possible Curriculum Integration Points

Grade 7 Social Studies Recommended

Outcomes

- Describe the impact of various factors on quality of life in Canada and elsewhere in the world.
- Describe ways in which their personal actions may affect quality of life for people elsewhere in the world.
- Give examples of government decisions that affect quality of life.
- Respect others' rights to express their point of views.

Other Relevant Curriculum Area(s)

Grade 7 Language Arts

Outcomes

- **Express Ideas** – Use exploratory language to discuss and record a variety of predictions, opinions, and conclusions.
- **Consider Others' Ideas** – Compare own and others' insights and viewpoints.
- **Experiment with Language and Form** – Expand self-expression in oral, written, and visual forms.
- **Develop Understanding** – Recognize and articulate the value of connecting prior and new knowledge and experiences to shape and extend understanding.
- **Explain Opinions** – Summarize and represent personal viewpoints in clear and meaningful ways.
- **Combine Ideas** – Identify or invent personally meaningful ways of organizing ideas and information to clarify and extend understanding.
- **Textual Cues** – Use textual cues such as organizational features of narrative and expository texts, bold print, italics, and footnotes to construct and confirm meaning and interpret texts.
- **Use Personal Knowledge** – Examine personal knowledge of, and experiences related to, a topic to determine information needs.
- **Contribute to Group Inquiry** – Contribute ideas, knowledge, and questions to help establish group inquiry or research focuses and purposes.
- **Identify Personal and Peer Knowledge** – Select and organize personal and peer knowledge of a topic to establish an information base for inquiry or research.
- **Assess Sources** – Use pre-established criteria to evaluate the currency, usefulness, and reliability of information sources in answering inquiry or research questions.
- **Organize Information** – Organize information and ideas by selecting or developing categories appropriate to a particular topic and purpose.
- **Generate Ideas** – Consider form and audience when generating ideas and focusing a topic.
- **Enhance Presentation** – Prepare compositions, reports, and inquiry or research projects using a variety of organizers such as titles, subtitles, headings, subtopics, and graphic organizers.

- **Grammar and Usage** – Edit for consistent verb tense and to eliminate unnecessary repetition of words and ideas.
- **Share Ideas and Information** – Facilitate small-group activities and short, whole-class sessions to share information on a topic using pre-established active learning strategies such as role-plays, language games, and simulations.
- **Attentive Listening and Viewing** – Demonstrate critical listening and viewing skills and strategies such as evaluating content, quality, and presentation delivery and show respect for the presenter(s) through appropriate audience behaviours such as showing attentiveness, and participating in audience activities.
- **Compare Responses** – Demonstrate growing self-confidence when expressing and sharing thoughts, ideas and feelings.
- **Cooperate with Others** – Contribute to group efforts to reach consensus or conclusions.
- **Work in Groups** – Present group conclusions or findings to classmates.
- **Use Language to Show Respect** – Respect diverse languages, ideas, texts, and traditions, and recognize contributions of self, peers, and the wider community.

Relevant Economic Outcomes

- Concept of “economic sustainability”
- Concept of renewable and non-renewable resources
- How business, household, and consumer actions can affect the environment – positively and negatively
- How governments policies and actions can affect the environment – positively and negatively
- Concept of “economic citizenship” and what it means – e.g., help sustain and improve the environment, be an informed voter.

Background Information

People need to live, work and play in ways that help sustain and possibly improve the environment. If children make good decisions now about helping the environment, they are more likely to become eco-friendly adults. Students are big consumers, and they can make a difference if they support businesses that are trying to protect the environment. In the future they will be voters, and need to be aware of how governments impact the quality of life. Learning about making a positive impact may also inspire them to consider a career that involves sustaining and improving the environment.

Overview of the Unit

The unit begins with a review of concepts regarding natural resources. Then the students will be put in groups to create a mind map showing resources and the businesses, households or consumers who use these resources. The maps will be presented to the class, followed by a discussion about how the users could reduce their impact on the environment. After sharing an article with the class about the affect businesses have on the environment, each student will be given an assignment to use the internet to read an article about how people affect the environment. They will then write a personal report containing their own ideas about how they can sustain and improve the environment. The last activity involves a debate as to whether or not the government policies are having a positive or negative impact of the environment.

Estimated Time Frame: 6 periods – 60 minutes each

Suggested Implementation Strategy

Period 1 60 minutes – RESOURCES

- Begin the period by asking the class what these concepts are: 1. natural resources 2. renewable resources 3. non-renewable resources
- The teacher should ask: Who uses these resources?
- Divide the class into an even number of small groups. Each group will make a mind map explaining the kinds of resources - e.g., natural resources – wood – students draw a forest : renewable – students might draw a waterfall: non-renewable – students draw an oil well
- The group must think of a business, household or consumer that uses each resource and write the name of the user beside the resource - e.g., oil well – Fedex, water – washing dishes, wood – newspapers
- Give each group a large Bristol board or piece of chart paper.
- Instruct the groups that their mind map should be divided into the three categories and that the mind maps will be presented to the class.
- Allow the rest of the period to complete their maps.

Period 2 60 minutes – PRESENTATIONS

- Finish up mind maps and make presentations.

Period 3 60 minutes – WHAT SHOULD PEOPLE DO TO HELP THE ENVIRONMENT

- The teacher will ask for volunteers to read the article titled “How Businesses Affect the Environment. (Handout 1)
- The class will look at the businesses, household and consumers that were identified in the mind maps.
- Ask the class to think about how each user is affecting the environment and start a discussion about how the users could make changes to reduce their impact on the environment.
- Using computers, instruct the class to go to the following website:
<https://interestingengineering.com/11-ways-humans-impact-the-environment>
The students are asked to read the article about the effect people have on the environment. They are to then write a personal report with their own ideas about the ways they can sustain and improve the environment.
- This can be finished for homework and handed in next period.

Period 4 60 minutes – HOW GOVERNMENT AFFECTS THE ENVIRONMENT

- Start the period by asking the questions:
 - If businesses are not being eco-friendly, who is responsible to make sure they are? (government)
 - How does the government affect the environment? (policies)
 - Tell the class that they will be preparing a debate on this topic: Is our federal government doing a good job protecting the environment? (yes or no?)
- Divide the class into groups to debate this issue. Hand out copies of the Rules for Classroom Debating and the Debating Rubric. (Handout 2-3) Look at and discuss with the class how the debate will be run and assign the roles needed for the debate.
 - For homework, ask the students to research online how the government positively and negatively affects the environment. They are to bring their findings back for the next period.

Period 5 60 minutes

- Allow the next period for preparation for the debate. During this time the teacher will meet with both sides checking on their progress and offering assistance where needed.

Period 6 60 minutes

- The DEBATE starts!

Possible Evaluations

1. Evaluate the group work and mind maps.
2. The Personal reports can be marked.
3. The teacher could go to the following website: <http://www.neok12.com/Energy-Sources.htm> and print out copies of three quizzes that are available for classroom use. They are called:
 1. Renewable or Non-renewable Quiz
 2. Types of Natural Resources
 3. Quiz on Natural Resources
4. The teacher can use the Rubric to assess the debates.

Modifications or Suggestions for Different Learners

1. All students can have a role in producing the mind maps and presentations. Students can be paired up with some to do the report assignment or they can be directed to a follow-up activity if necessary (activity 1). The teacher can assign the roles for the debate to accommodate all learners.

Follow-up Activities

1. Watch this on line video titled "Economics, Natural Capital & the Environment" at:
<https://study.com/academy/lesson/economics-natural-capital-the-environment.html>
2. Read an article called "5 reasons why the economy is failing the environment, and humanity" at:
<https://www.weforum.org/agenda/2017/01/5-reasons-why-the-economy-is-failing-the-environment-and-humanity/>
3. Read the article "How do Humans Affect the Environment" at:
<https://onlinedegrees.kent.edu/geography/geographic-information-science/community/human-impact-on-the-environment>

Handouts

1. How Businesses Affect the Environment article
2. Rubric for Debating
3. Classroom Rules for Debating

Resources

1. Article -lovetoknow corp.
2. Article -Buzz.com -Intelligent Life on the Web
3. Debating Rubric -Middleschooldebate.com London
4. Rules for Classroom debates -www.montrealgazette.com
5. Internet games - neoK12 Educational games

How Businesses Affect the Environment

By Yvonne Jeffery, Liz Barclay, and Michael Grosvenor

The place you work can affect the environment either positively or negatively to a very large degree. How eco-friendly your employer is when it comes to using energy to heat and cool the building, to bring products into it, and to remove waste from it has a major impact on your community and the planet.

You may be surprised by some specific examples of ways the working world damages the environment:

- Heating and air conditioning systems pump greenhouse gas emissions from offices into the atmosphere and use up vast amounts of electricity. Many buildings aren't designed to include energy-efficient systems or technology to reduce the amount of heat and air conditioning they use.
- Many buildings are built from materials that don't come from renewable sources.
- Office buildings have a huge appetite for electricity to power lighting, air conditioning, computers, printers, and photocopiers. Equipment may be left on 24 hours a day, seven days a week — even when no one's working.
- Offices consume vast amounts of paper. Even with more offices recycling paper, a large amount of paper waste still goes to landfill sites or incinerators.
- In addition to paper, offices produce a lot of other waste, including equipment (especially computers), because companies regularly upgrade their equipment to stay competitive. Electronics such as photocopiers and computers can end up in landfills, where they don't break down and, even worse, can leach harmful chemicals into the ground and water.
- Rush-hour traffic jams in towns and cities are full of people trying to get to work — wasting time and polluting the atmosphere.

According to the U.S. Environmental Protection Agency, industrial and commercial energy use (from such sources as electricity use, product transportation, industrial processes, burning fossil fuels to power boilers and produce steam, and using gasoline to power vehicles) accounts for nearly 30 percent of total U.S. greenhouse gas emissions.

Debating Rules For Class Participation

<p>1. Chairperson: Controls the debate; is neutral: sort of judge.</p> <p>2. Proposer: Speaks for the motion; a sort of lawyer arguing for the motion.</p> <p>3. Opposer: Speaks against the motion; a sort of lawyer arguing against the motion.</p> <p>4. Proposer's Seconder: Second speaker for the motion; helps proposer.</p> <p>5. Opposer's Seconder: Second speaker against the motion; helps opposer.</p> <p>Motion: The topic being debated; the wording is important.</p> <p>How to proceed in a debate:</p> <p>A) No. 1 Reads the motion No. 2 Speaks for the motion No. 3 Speaks against the motion No. 4 Speaks for the motion No. 5 Speaks against the motion</p> <p>B) Then after No. 2-5 have spoken:</p> <p>I. Chairperson opens debate to the floor (rest of the class)</p> <p>II. Students ask questions of speakers 2-5 only;</p> <p>III. <i>when</i> chairperson says they can speak.</p> <p>IV. Students stand up and start by saying, "Mr. Chairman/Ms. Chairwoman."</p> <p>V. Individuals speak carefully. No insulting names, must say things like, "A previous speaker" or the Proposer's seconder says..."</p> <p>VI. Keep the debate impersonal, attack ideas not people.</p> <p>VII. Individuals can make statements or ask speakers No. 2-5 to explain something. Speakers 2-5 answer.</p>	<p>C)</p> <p>I. After the class has nothing else to say or ask, or if it is time for the bell, the Chairperson closes the debate to the floor (the class).</p> <p>II. Chairperson asks the Proposer to briefly sum up his/her main idea.</p> <p>III. Chairperson asks the Opposer to briefly sum up his/her main idea.</p> <p>IV. Chairperson then reads the motion to the class (to make sure they understand it.)</p> <p>D) The Chairperson stands up and asks:</p> <p>I. Those for the motion to put up their hands (chairperson counts and writes down the number).</p> <p>II. Those against the motion to put up their hands (chairperson counts and writes down the number).</p> <p>III. Those who are neutral/ abstaining (can't make up their minds) (chairperson counts and writes down the number).</p> <p>IV. Chairperson then says whether the motion is carried (proposer win) or defeated (opposer win) by saying "I declare this motion – reads motion – carried or defeated."</p> <p>Remember:</p> <ul style="list-style-type: none"> • Abstainers, no matter how many, can never win. • Chairperson has casting vote in the event of a tie. • Vote on the ideas heard in the room, not on what you know from elsewhere.
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Score	Description	Argumentation	Refutation	Structure	Presentation
59 and lower	Below average for an experienced debater. This score may be slightly below average for a new or anxious speaker. Lower markings of this sort simply indicate that a student has yet to master any of the core elements of public speaking and argumentation. A lower score does not indicate a 'failure' on the students' part. It simply reveals skill-level based on a single debate.	Does not use the A-R-E (assertion – reasoning – evidence) format for an argument. Offers assertions with no analytical support or negligible reasoning. There is little or no evidence to support argumentation. The speaker has likely copied arguments from other sources but does not understand the issues. The speaker is unlikely to amplify the arguments of partners.	This speaker is unlikely to reply to the overwhelmingly majority of major points from the other side. This speaker is likely to repeat her/his own arguments without expanding to them or comparing them to the arguments from the opposing side. The result is that there is little 'clash' in the debate. The speaker is likely to either accept or reject all POIs.	Disorganized. Does not have a narrative structure to the speech (introduction – body – conclusion). Arguments are not clearly distinguished from one to another. The speaker does not reply to opposing issues in an orderly manner. It is difficult to flow the speech, due to the lack of organization. The speaker is not using the full amount of allotted speaking time.	The speaker is distracted, anxious, and halting in delivery. There is little eye contact – use of notes inhibits establishing a connection with the judge. The speaker mumbles or has numerous vocal pauses ('umm,' 'you know,' 'whatever.') The speaker disrupts the effectiveness of partners' speeches (interruptions, excessive passing of notes.)
60-64	This is a below average performance for an experienced debater but may be a more common 'average' score for beginning debaters. In general, the speaker is modestly successful in one major performance element (public speaking, organization, argumentation, refutation, interactive elements such as POIs and heckling, etc.) but is ineffective or unsuccessful in other major elements.	Does not generally use the A-R-E format, although there may be an exception for one or two arguments. Little evidence – contemporary and historical examples, statistical information, expert testimony – is used by the speaker. The speaker is likely to have inconsistencies, logic gaps, or one or more fallacies in major arguments. Little integration of issues from teammates.	This speaker is not able to clash with or reply to the majority of arguments from the opposing side. This debater is more apt to repeat previous ideas rather than develop, analyze, or compare them. The speaker does not use advanced refutation techniques, for example, evaluating opportunity costs and opponents' underlying assumptions.	There is little organization to the full speech, although one or more individual points may be appropriately organized. The speaker does not have an attention-getting introduction nor a powerful conclusion. The speaker is difficult to follow for a significant amount of time. The speaker is not clear when moving from one to one point to another. May use full speaking time, but does not allocate it effectively.	The speaker loses clarity for sustained periods. There is poor eye contact and infrequent use of gestures. The speaker does not sound confident or convincing. The speaker rarely attempts a POI; the speaker is distracted by POIs from the opposing team. The speaker does not work effectively with teammates or participate in positive or negative heckling.
65-69	This is a near average performance for an experienced debater and an average or slightly above average performance for a new debater. The speaker is inconsistent – some speech elements are done well and others are unsuccessful.	The speaker clearly understands argumentation but only occasionally uses A-R-E. The speaker is also likely to confuse reasoning and evidence, offering only one of the elements rather than both.	The speaker is more likely to discuss her/his own arguments than answer an opponent's arguments in a direct and forceful way, although there is some refutation of limited effectiveness.	The speaker has a basic structure (introduction, body, conclusion) but strays from it during the presentation. The speaker is likely to be able to organize her/his own arguments but loses structure when trying to address opponent's points. The speaker gets distracted or slows the pace too much when confronted with POIs/heckles.	Speaks clearly but there are noticeable pronunciation and other verbal errors that are sufficiently distracting for the audience or disrupt the natural flow of the speech. The speaker makes POIs but they are generally obvious questions, not tactical arguments.
70-74					