

# Global Awareness, Local Action

***building respect for God's creation***

a cross-curricular project for Grade Seven students



**May 2010**

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# PROJECT DESCRIPTION

This project will help Grade Seven students **build respect for God's creation** by making them **aware of environmental issues** around the world and by participating in at least **one local environmental protection project**. Lessons from **seven different curriculum areas** can be used in an inter-disciplinary, grade-wide, initiative or teachers can use individual lessons to support environmental initiatives in their own classes. While this project has been developed for Grade Seven, many of the activities can be **easily adapted for earlier and later grade levels**.

The project is rooted in **four Catholic Graduation Expectations**. It helps students see the value of all life (CGE 1) and gives them the opportunity to reflect on their own values and choices (CGE 4). The project asks students to collaborate in teams to investigate issues (CGE 5) and develop attitudes and initiatives that are reflective of responsible citizenship (CGE 7).

A wide variety of overall expectations are addressed in the seven curriculum areas (see below). These can be tackled in isolation or they can be easily integrated across the Grade Seven curriculum. At various points throughout the project, **Curriculum Connection Tip Boxes** (see below) identify opportunities for integration.

Throughout the project there are **numerous opportunities to assess** the students' learning. There is a **culminating performance task** that gives the students the opportunity to show the depth of understanding and skill that they have developed over the course of the term/year. Opportunities for **formative assessment** are also suggested at various points in all of the curriculum units.

The cross-curricular grade-wide project starts with an **in-depth investigation of global environmental issues** in Geography class while students look more closely at the **impact of technology and human behaviour on local environments** in Science using skills that they are learning in Mathematics. Religion teachers will set the project in a **Catholic perspective** while History classes look into the **Aboriginal peoples' relationship with their environment** and Physical Education classes focus on **health issues and the impact of sport on the environment**. Throughout the project, in all of these curriculum areas, there are also numerous opportunities to integrate the **learning of Language**.

All lessons and activities include a list of related Catholic Graduate Expectations and Overall Expectations covered in each curriculum area, formative and summative assessment pieces, and Learning Activities that can be followed as is or that can be easily adapted by individual teachers. Many of the Learning Activities include a wide variety of resources, student assignment handouts, topic lists and other teaching materials that are also included.

## Project Organization

### Cross-Curricular Culminating Performance Task

Subject Curriculum Units (Geography, Science and Technology, Mathematics, Religious Education, Health and Physical Education, History, Language)

- Unit Description
- Learning Outcomes
- Learning Assessment summary
- Learning Activities
- Teaching Materials
- Resources and References

### Appendix I – Cross-Curricular Teaching Materials

# Tip Boxes

Throughout the project there are *Tip Boxes* that offer information and suggestions to supplement, add to and/or enhance the Unit Descriptions and Activities. Descriptions and examples of each of the five different types of Tip Boxes are provided here.

## Modifications and Extensions

The **Modifications and Extensions** *Tip Boxes* offer suggestions for ways to add to the lesson. Examples of modifications and extensions include additional exercises that could be done, different ways to present a lesson or ways to extend or differentiate an Activity. An example of this kind of *Tip Box* is given below.



While this Activity is set up specifically to collect data related to lunch waste, it could be easily adapted to track other environment-related practices like turning off computers and lights etc.

## Assessment Opportunities

The **Assessment Opportunities** *Tip Boxes* identify specific knowledge and skills (K&U - Knowledge and Understanding, TH – Thinking, CM – Communication and AP – Application) that would be evident in student work that is generated in an Activity. This evidence of the students’ understanding and skill could be used for either formative or summative assessment. An example of this kind of *Tip Box* is given below.



Assessment  
Opportunity

The “Planning a Nature Hike” assignment allows for assessment in the following areas:

**K&U:** fitness, strength and agility benefits

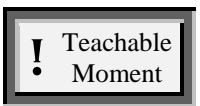
**TH:** ability to plan within parameters

**CM:** ability to express ideas effectively

**AP:** ability to make connections between an activity and its benefits

## Teachable Moment

The **Teachable Moment** *Tip Boxes* identify specific points in Activities where concepts and skills might be highlighted or explicitly taught. An example of this kind of *Tip Box* is given below.

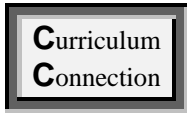


Teachable  
Moment

This could be used as an opportunity to teach the students **how to create useful notes**. Things like concise and appropriate titles, using point-form, the importance of neatness, the importance of leaving space etc. could be highlighted.

## Curriculum Connection

The **Curriculum Connection Tip Boxes** identify where one subject's content is linked to another subject's content. These points are the best opportunities for cross-curricular integration. An example of this kind of *Tip Box* is given below.



There are clear connections to **Science and Technology** in this Activity. It may be useful to refer to notes and concepts like ecosystem from that class to inform this brainstorming exercise. The *Environmental Investigations* Activity may give the students some ideas about local issues.

## CGE Connection

The **CGE Connection Tip Boxes** identify where the Catholic Graduate Expectations can be easily integrated into the Activities of other subject areas. An example of this kind of *Tip Box* is given below.



**CGE 7i** (...respects the environment and uses resources wisely): The connection could be made that there is a religious imperative to our eating and waste disposal habits – God would expect us to eat in a way that respects our environment.

# **Cross-Curricular Culminating Performance Task**



# Cross-Curricular Culminating Performance Task

## Description

This culminating performance task, to be completed at the end of the project, consists of two parts. The first part asks students to create a presentation on how humans treat their environment and to reflect on ways that we do and do not follow what God expects of us. Part II asks the students to write a report on the *Reducing Lunch Waste* project they will have planned, implemented and assessed as part of this project.



While this performance task would be best suited to a grade-wide interdisciplinary project, it can be easily taken apart and adapted to specific curriculum areas.

## Catholic Graduate Expectations

This performance task will be the culmination of activities that will help each student become, amongst other things:

A **discerning believer** formed in the Catholic faith community who develops attitudes and values founded on Catholic social teaching and acts to promote social responsibility, human solidarity and the common good, and who integrates faith with life.

A **collaborative contributor** who finds meaning, dignity, fulfillment and vocation in work which contributes to the common good.

A **responsible citizen** who respects the environment and uses resources wisely, and who contributes to the common good.

A **reflective and creative thinker** who adopts a holistic approach to life by integrating learning from various subject areas and experience.

## Relevant Overall Expectations

Expectations that can be assessed are identified in each of the two Parts of this Performance Task (see below).

## Teaching/Learning Activities

The teaching/learning Activities described in each Curriculum Unit will help the students build the skill and understanding necessary to complete this Task.

## **Summative Assessment** (the Culminating Performance Task)

Please see the student copy of the *Cross-Curricular Performance Task* in **Appendix I – CROSS-CURRICULAR TEACHING MATERIALS** (p. 160) for details.

The performance task is divided into two parts.

### **Part I: Presentation - *How we treat the environment***

This Part asks the students to create a media presentation (slide show, pamphlet, video, poster, web page etc.) that depicts how people treat the environment in both positive and negative ways. The students can work together to do this but each student must create their own presentation.

The students' presentation must also include a response to the following question: *As humans, do we have respect for God's creation?*



The students could be asked to turn in evidence of planning (brainstorming, outlines, storyboards etc.) and could be graded on this. They might also be graded on their work in groups and related oral communication skills.

### ***Expectations to be Evaluated***

The following expectations are taken directly from the Ministry curriculum documents. In some cases they have been adapted slightly to make clearer links to this performance task. The specific curriculum area is identified in brackets at the end of each expectation.

explain how patterns of physical geography affect human activity around the world (GEO)

describe positive and negative ways in which human activity can affect resource sustainability and the health of the environment (GEO)

assess the impacts of human activities and technologies on the environment, and evaluate ways of controlling these impacts (SCI)

...identify factors that affect the balance between different components of the ecosystem. (SCI)

create a media text for a purpose and audience using appropriate forms, conventions and techniques (LAN)

thinks reflectively and creatively to make decisions in light of gospel values with an informed moral conscience (REL)

thinks reflectively and creatively to examine, evaluate and apply knowledge of interdependent systems (physical, political, ethical, socio-economic and ecological) for the development of a just and compassionate society (REL)

## Part II: Conservation Project Report

In this Part, the students write a one to two page report on their environmental conservation project. They should include each of the following in their report:

- a brief description of the environmental conservation project in which they were involved
- an in-depth explanation of why the project, if successful, is good for the environment; include why it would be good for the health of humans
- an explanation of whether or not the project was successful; at least one mathematical graphic (chart, graph etc.) must be included to support the conclusion made

### *Expectations to be Evaluated*

The following expectations are taken directly from the Ministry curriculum documents. In some cases they have been adapted slightly to make clearer links to this performance task. The specific curriculum area is identified in brackets at the end of each expectation.

describe positive and negative ways in which human activity can affect resource sustainability and the health of the environment (GEO)

assess the impacts of human activities...on the environment... (SCI)

demonstrate the ability to apply health knowledge and living skills to make reasoned decisions and take appropriate actions relating to their personal health and well-being (H&PE)

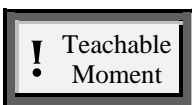
display...data using charts and graphs, including relative frequency tables and circle graphs (MAT)

make and evaluate convincing arguments, based on the analysis of data (MAT)

...write for an intended purpose and audience (LAN)

## Formative Assessment

Throughout the project, in conjunction with the teaching/learning Activities, the students will be asked to produce pieces similar to what they will be expected to produce for this culminating performance task (graphs, descriptions, explanations, media presentations...). The teacher can then offer comments and observations on the quality of this work and make suggestions for improvements. When necessary, whole class or small group lessons may be used to address problems that are uncovered in these formative assessments.



Throughout the project, exemplary work can be collected, displayed and remarked upon so that students are fully aware of what is expected of them. A list and examples of common mistakes can be collected and referred to as well.

# **Curriculum Units**

# GEOGRAPHY

## Description

The Geography component is one of the cornerstones of this environmental studies cross-curricular project. It gives students the opportunity to see the many ways in which our environment is being threatened and to think deeply about things that we can do to alleviate or lessen these threats. It also gives them the opportunity to develop many of the thinking and communication skills necessary to study such an important issue.

## Activities

There are three Activities in the Geography Component.

Activity I – Global Environmental Issues Brainstorming

Activity II – Environmental Issues Research and Report

Activity III – Environmental Issues Debate

The three Activities give the students a general idea of the issues that face the world, to study one issue in depth and then participate in a debate that forces them to see the complex human and physical dynamics that underlie our relationship with God's creation.

### Curriculum Connection

The **Science and Technology** unit looks at the large scale issues covered in Geography from a local perspective by studying the impact of human activity on the ecosystem and its components.

## **LEARNING OUTCOMES**

### **CATHOLIC GRADUATE EXPECTATIONS**

During this series of Learning Activities the student will develop as...

**CGE 3 - A REFLECTIVE AND CREATIVE THINKER WHO:**

c. thinks reflectively and creatively to evaluate situations and solve problems

**CGE 7 – A RESPONSIBLE CITIZEN WHO:**

i. respects the environment and uses resources wisely

j. contributes to the common good

### **GEOGRAPHY**

#### **Overall Expectations**

By the end of Grade 7, the students will:

- identify and explain the themes of geographic inquiry (specifically environment and interaction)
- describe how humans acquire, manage, and use natural resources...
- explain how patterns of physical geography affect human activity around the world
- describe positive and negative ways in which human activity can affect resource sustainability and the health of the environment
- use a variety of geographic resources and tools to gather, process and communicate geographic information
- analyze current environmental issues or events from the perspective of one or more of the themes of geographic inquiry

# LEARNING ASSESSMENT

## Summative Assessment of Learning

The **Cross-Curricular Culminating Performance Task** (see p. 4) can be used to assess the learning outcomes identified above.

## Formative and Summative Assessment of Learning

The following products, created by the students in the Learning Activities described below, can be used to assess the learning outcomes. These are identified in each Activity by the *Assessment Opportunity* icon.

### Activity I – Global Environmental Issues Brainstorming

*Global Environmental Issues* chart  
Maps of the World, Canada and local area  
group presentation of charts

### Activity II – Environmental Issues Research and Report

*Information Resource Analysis*  
Environmental Issue report  
Environmental Issue presentation

### Activity III – Environmental Issues Debate

research notes  
Argument Writing and Argument Presentation  
Argument Critiques and Rebuttals  
Final Statement

## LEARNING ACTIVITIES

The *Learning Activities* for the GEOGRAPHY unit are organized into three parts.

Global Environmental Issues Brainstorming

Environmental Issues Research and Presentation

Environmental Issues Debate

**TEACHING MATERIALS** used to support the Learning Activities are referred to in the Activity descriptions and are provided following the description of all of the Learning Activities.

A list of *Resources and References* used to develop and support these Learning Activities can be found after the **TEACHING MATERIALS**.



## ACTIVITY I

### Global Environmental Issues

#### *Brainstorming*

### ACTIVITY SUMMARY

The class will generate a list of environmental issues that are facing the world. Small groups will more deeply focus on three to five issues and will present their findings to the rest of the class. Using this information, all students will build their own note listing environmental issues facing the world.

### TEACHING OPPORTUNITIES

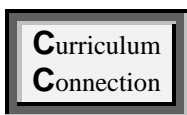
The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• natural resources</li><li>• environment</li><li>• interdependence</li></ul>	<ul style="list-style-type: none"><li>• note-taking and writing (communicating in different forms)</li><li>• mapping skills (use of tools)</li><li>• oral communication (communicating in different forms)</li><li>• Internet research (gathering information)</li><li>• using text features (index, table of contents etc.) to find information</li></ul>

### ACTIVITY DESCRIPTION

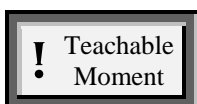
#### Whole Class Brainstorming

Review the meaning of environment and use deforestation (or some other issue with which the teacher is familiar) as an example of an issue facing the environment. Talk about ways that deforestation threatens various aspects of the environment, giving local, Canadian and global examples.



There are clear connections to **Science and Technology** in this Activity. It may be useful to refer to notes and concepts like ecosystem from that class to inform this brainstorming exercise. The *Environmental Investigations* Activity (see p. 34) may give the students some ideas about local issues.

Individually or in small groups, have the students generate lists of environmental issues. The students could use textbooks, the Internet, newspapers and/or magazines etc. to help them generate their lists.



This would be a good opportunity to review or teach research strategies that would help students generate lists. For example, it is not necessary to read entire articles; the index of books and table of contents of magazines on their own are good sources of ideas.

Using the issues the students or groups have come up with, generate a class master list of environmental issues (see the *Environmental Issues* list in **Appendix I – Cross-Curricular TEACHING MATERIALS** – p. 163).

After the class master list has been created, the teacher can add important issues that the students have not suggested. This master list of issues could be kept on an overhead, slide or chart paper to refer to later in the unit.

### Small Group Research and Brainstorming

#### *Global Environmental Issues charts*

After the class master list has been created, small groups of three to five students will look more deeply at three to five issues. For each issue they will identify the aspects of the environment that are affected and locations in the local area, in Canada and in other parts of the world that are affected by each issue. Assign issues to each group so that there is no overlap. However, it might be informative to assign major issues to more than one group.

The groups will create a chart to present their findings. This chart will have three columns: issues, aspects of the environment affected, and locations. Blank maps of the world, Canada and the local area could be used to identify the locations (see blank Canada and World maps in **TEACHING MATERIALS**). The students could create their own charts or a master template (see *Global Environmental Issues* chart in the **TEACHING MATERIALS** section) could be given to each student. It is important that *each* student have a copy of a chart. Students will add to their charts when other groups present on their issues (see below).

Use deforestation as an example to show the class what is expected of them.



The charts and maps could be assessed before and/or after the Group Presentations to assess the following:

**K&U:** issues, resources affected, accuracy of map locations

**AP:** mapping skills (labels, neatness...); examples of locations of issues

### Group Presentations

Each group will briefly present on their issues. Each student is responsible for adding the information presented to their charts and maps.



**CM:** ability to effectively express ideas orally



The students could be asked to write a short paragraph arguing which one of the issues is the most pressing concern.

## ACTIVITY II

### Environmental Issues

#### *Research and Presentation*

### ACTIVITY SUMMARY

Each student will research and present on one environmental issue.

### TEACHING OPPORTUNITIES

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• environment</li><li>• natural resources</li><li>• interdependence</li><li>• perspective</li></ul>	<ul style="list-style-type: none"><li>• Internet research</li><li>• critical analysis of information resources (how reliable etc.)</li><li>• identifying perspective, bias etc.</li><li>• oral and graphical presentation</li><li>• note-taking skills</li></ul>

### ACTIVITY DESCRIPTION

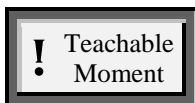
#### Preparation

Assign, or have the students choose one environmental issue on which they will do research, create a visual presentation and orally present to the class.

#### *Research*

The students must find three to five sources of information about their issue. They should use different kinds of resources (web site, newspaper article, textbook, encyclopaedia, personal interview etc.).

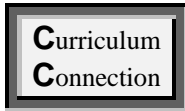
They should take notes from each source of information.



Before the students start doing their research, it would be useful to either review or teach the students about the **reliability, qualities and uses of different types of resources**. It would also be useful to review or teach note-taking strategies.

## Information Resource Analysis

Each student will analyze and critique two or three different sources of information (web site, newspaper article, textbook, encyclopedia, personal interview...) that they use. For each source they must state how reliable the source is and why. They must also suggest ways to ensure that the information they are getting from each source is trustworthy.



Essentially, this is a **critical literacy** exercise. Critical Literacy is taught/learned extensively in the **Language** curriculum (see p. 141).



The *Information Resource Analysis* can be used as evidence of the students' skill in the following areas:

**TH:** identifying perspectives, bias etc.

**CM:** general ability to communicate ideas

**AP:** ability to identify strengths and weaknesses of sources of information

## Report

The students will create a report on the details, locations, perspectives and possible solutions related to their issue. See the *Environmental Issue Report* assignment in **TEACHING MATERIALS**.



The report will provide evidence in the following areas:

**K&U:** general understanding of the issue; accuracy of map locations

**TH:** ability to identify solutions

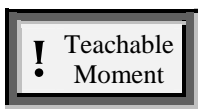
**CM:** organization and use of conventions; use of text features

**AP:** examples of related resources, locations and perspectives

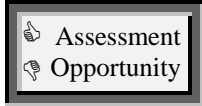
## Presentations

Other students in the class should have access to some or all of the reports of their peers so that they can learn about issues other than their own. This can be done in short oral presentations, or using a carousel format in which students have access to their peers' presentations.

Students could also be given the task of taking notes on some or all of the issues presented.



Before the students view the presentations of their peers, the teacher might review or teach important **note-taking skills** like headings, point-form, bullets, use of short-forms etc.



The students' notes on their peers' presentation could be collected and assessed on the following skill:

**AP:** note-taking - uses appropriate tools (bullets, short-forms etc.) and is concise and accurate



After viewing their peers' presentations, the students could be asked to write short (three to five sentences) summaries of five or six of the issues. This could be assessed to determine the students' understanding of the issues and their ability to write short summaries.

# ACTIVITY III

## Environmental Issues

### *Debate*

#### Activity Summary

In small groups, the students will research a topic and will then engage in a dialogue with other students. All students could debate one topic or pairs of groups could debate different topics.



This can be done orally, on paper or online.

#### Teaching Opportunities

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• environment</li><li>• natural resources</li><li>• interdependence</li></ul>	<ul style="list-style-type: none"><li>• Internet research</li><li>• critical thinking</li><li>• critical analysis of information resources (how reliable etc.)</li><li>• oral and graphical presentation</li><li>• use of examples to support descriptions and arguments</li><li>• note-taking</li></ul>

#### Activity Description

In small groups, the students will argue one (or both sides) of a thesis that forces them to consider the human impact on the environment.

#### Theses

Some examples of possible debate theses are as follows.

- All fossil fuels should be banned.
- China must protect the environment more.
- Cities are good for the environment.
- Exploitation of animals for human recreation (hunting, bull fighting, riding...) should be allowed.
- Good soil should be protected.
- Human activity that negatively impacts the environment should be taxed.
- Plastic bags should be banned.
- Resources in protected areas (national parks, wildlife reserves etc.) should be exploited.
- Synthetic pesticides and fertilizers should not be used in farming.
- Third World countries should be allowed to use insecticides.

## Debate Stages

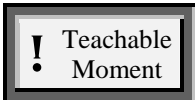
The debate should be conducted in the following stages:

### *Research*

Each group will research the topic looking for arguments to support the position they will be taking.



It might be powerful to have each group research both sides of the debate **before** positions are assigned.



This would be a good time to discuss the **usefulness of different resources** and to review good **note-taking techniques**.



The students' research notes could be collected and assessed on the following skill:

**AP:** note-taking - uses appropriate tools (bullets, short-forms etc.) and is concise and accurate

### *Argument Writing*

Once positions have been assigned to each group, the students will write arguments supporting their position in the debate. They should be told that they must include examples to support the arguments that they make.

Each student would be expected to write and present at least one argument. Again, it might be powerful for groups to argue both sides of the issue.

### *Argument Presentation*

Either in an oral debate, on paper, as students make their arguments by passing their written work to opposing sides, or online in a discussion board, students will present their arguments.



While the students are participating in this debate it is important that they develop the skills necessary to truly “hear” their peers. This can be directly related to a number of Catholic Graduation Expectations, but specifically to being effective communicators, reflective thinkers and collaborative contributors. This is an excellent opportunity to illustrate the “practicality” of our religious beliefs.



The Argument Presentations could be used as evidence to assess the following understanding and skills:

**K&U:** general understanding of the issue

**TH:** ability to generate logical arguments

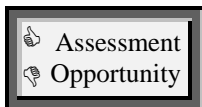
**CM:** ability to organize and use conventions to write and orally communicate effectively

### *Argument Critiques*

After hearing or reading their opponents' arguments, students will critique those positions. This can be put in the form of counter-arguments, questioning the logic of arguments, or suggesting alternative explanations for what has been suggested. Again, this can be done orally, on paper, or in an online discussion group.

### *Rebuttal*

Students should then respond to the critiques of their arguments.



The critiques and rebuttals could be used to assess the following skills:

**TH:** ability to ask questions and evaluate

**CM:** ability to communicate clearly and respectfully

### *Final Statement*

After the debate has been conducted, the students write a final statement on the debate topic. This can be a re-write of their original position, a summary of the debate, or an outline of both sides of the debate. One powerful way to ensure that the students consider both sides of the debate is to have them write an argument for the side *opposite* to the one they debated.



This Final Statement would provide evidence for assessment in the following areas:

**K&U:** general understanding of humans' acquisition, management & use of resources

**TH:** critical analysis (logical arguments, critiques and rebuttals)

**CM:** oral presentation of arguments; organization of writing and use of conventions

**AP:** use of examples to support arguments



# **GEOGRAPHY**

## **Teaching Materials**

## Global Environmental Issues

Issue	Aspect(s) of Environment Threatened	Locations (map reference)
deforestation	<ul style="list-style-type: none"> <li>trees are lost</li> <li>air cannot be recycled and cleaned</li> <li>people, animals, plants, and insect species lose habitat</li> </ul>	<ul style="list-style-type: none"> <li>Barrhaven (A1)</li> <li>British Columbia (A7)</li> <li>South American rain forest (B1)</li> <li>Central African rain forest (D3)</li> <li>Borneo (E4)</li> </ul>

Issue	Aspect(s) of Environment Threatened	Locations (map reference)







# Environmental Issue Report

You will create a report on the issue you have been assigned. Your report should include all of the following:

- a description of the issue
- a description of the problem noting natural resources that are affected
- a list of important locations related to the issue in the local area, Canada and the world (with map) – this would include locations where the issue is caused and places where the issue has a significant impact
- the perspectives of 3 or 4 different groups of people affected by the issue (consumers of the resource, resource industry workers, local business owners, parents, politicians, local citizens, citizens of the country, the church etc.)
- three possible solutions or ways to alleviate the problems associated with the issue

This report can be presented in many forms. It can be done as a formal essay, as a pamphlet or flyer, as a web site, in a radio or TV commercial etc. Choose a form that allows you to communicate your information to the best of your ability.

## Assessment

As you plan and create your report, review the following grading rubric to ensure that you provide evidence of the skills and understanding being assessed:

### Knowledge and Understanding Level 3

knowledge of important locations related to the issue	<ul style="list-style-type: none"><li>• most locations are accurately located on the maps</li></ul>
general understanding of the issue	<ul style="list-style-type: none"><li>• solid grasp of the issue, with considerable depth and detail</li></ul>

### Thinking Level 3

ability to solve problems	<ul style="list-style-type: none"><li>• solutions are logical and plausible and, in some cases, are creative</li></ul>
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### Communication Level 3

ability to express ideas using proper conventions and good organization	<ul style="list-style-type: none"><li>• overall, information and ideas are communicated with considerable effectiveness</li><li>• text features (colour, transitions, headings etc.) are used well with some creativity</li></ul>
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### Application Level 3

ability to apply knowledge and understanding of the issue	<ul style="list-style-type: none"><li>• locations chosen and perspectives described are appropriate and indicate considerable understanding of the issue</li></ul>
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## **Resources and References**

Ontario Ministry of Education (2004). *The Ontario Curriculum: History and Geography Grades 7 and 8*. Toronto: Ministry of Education, 2004.



# SCIENCE AND TECHNOLOGY

## Description

The Science and Technology component gives the students the opportunity to experience the environment first hand identifying ways in which humans impact the ecosystem. While they are doing this, the students will use and develop important communication and thinking skills. This is followed by an activity in which the students assess the “environmental friendliness” of habits and practices in their school community and then develop a plan to encourage their peers to improve these practices.

## Activities

There are two Activities in the Science and Technology Component.

Activity I – Environmental Investigations

Activity II – School Environmental Assessment and Action Plan

### Curriculum Connections

The **Geography** component helps students identify some of the global problems that have some root causes in local areas. The Science and Technology component investigates these local causes.

The **Health and Physical Education** component includes a hiking exercise that could be done in concert with the *Environmental Investigations* Activity in this component.

Part of this component is integrated with the **Mathematics** curriculum. Calculations that need to be done in the Science and Technology Activities are described in the Mathematics component.

# LEARNING OUTCOMES

## CATHOLIC GRADUATE EXPECTATIONS

During this series of Learning Activities the student will develop as...

CGE 3 - A REFLECTIVE AND CREATIVE THINKER WHO:

c. thinks reflectively and creatively to evaluate situations and solve problems

CGE 7 – A RESPONSIBLE CITIZEN WHO:

i. respects the environment and uses resources wisely

j. contributes to the common good

## SCIENCE AND TECHNOLOGY

### Overall Expectations

UNDERSTANDING LIFE SYSTEMS: Interactions in the Environment

By the end of Grade 7, the students will:

- assess the impacts of human activities and technologies on the environment, and evaluate ways of controlling these impacts
- investigate interactions within the environment, and identify factors that affect the balance between different components of the ecosystem
- demonstrate an understanding of interactions between and among biotic and abiotic elements in the environment

### Big Ideas

- Ecosystems are made up of biotic (living) and abiotic (non-living) elements that interact.
- Ecosystems are changing everyday and these changes may be caused by natural factors or by human impacts.
- Human activities and technologies have an impact on the environment. Humans must have an awareness of these impacts and evaluate ways of controlling them.

# LEARNING ASSESSMENT

## Summative Assessment of Learning

The **Cross-Curricular Culminating Performance Task** (see p.4) can be used to assess the learning outcomes identified above.

## Formative and Summative Assessment of Learning

The following products, created by the students in the Learning Activities described below, can also be used to assess the learning outcomes. These are identified in each Activity by the *Assessment Opportunity* icon.

### Activity I – Environmental Investigations

*Environmental Observations* note  
Local Area observations notes  
consolidation activities

### Activity II – School Environmental Assessment and Action Plan

*Preliminary Reflection* paragraph  
*Lessening the Impact of One Waste Product* media text  
media text sharing point-form notes  
*Lunch Waste Reduction Project* report

## LEARNING ACTIVITIES

The *Learning Activities* in the Science and Technology unit are organized into the following two sets of learning exercises:

Environmental Investigations

Reducing Lunch Waste

**TEACHING MATERIALS** used to support the Learning Activities are referred to in the Activity descriptions and are provided following the description of all of the Learning Activities.

A list of *Resources and References* used to develop and support these Learning Activities can be found after the **TEACHING MATERIALS**.

**ACTIVITY I**  
**Environmental Investigations**  
*using note-taking to make observations about a local area*

**ACTIVITY SUMMARY**

This Activity gives students extensive experience with a local area. This experience gives them the information, ideas and concepts with which to build their understanding of the human impact on the environment and reinforce their understanding of the make-up of the ecosystem. It also has the students practice many thinking and communication skills they need to develop and gives them many opportunities to apply these skills and to develop their understanding of the Big Ideas.

After investigating a local area in this series of exercises, they will use their experience to extend their understanding of how humans affect their environment.

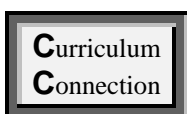
**TEACHING OPPORTUNITIES**

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts and Content	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• ecosystem components (biotic, abiotic)</li><li>• human impact on environment</li><li>• systems and interactions</li><li>• sustainability and stewardship</li></ul>	<ul style="list-style-type: none"><li>• asking questions</li><li>• gathering evidence and data</li><li>• creating or using a data table with titles and headings</li><li>• recording data appropriately</li><li>• developing hypotheses</li><li>• forming and justifying conclusions</li><li>• evaluating the human impact on the environment</li><li>• note-taking techniques</li><li>• describing using pictures, simple sentences, grade appropriate vocabulary</li></ul>

**ACTIVITY DESCRIPTION**

During this Activity, the students will visit a local area and take notes on what they find there. Before visiting the local area, they will discuss how they will make their observations and they will brainstorm the kinds of things they should be looking for. After the field trip, they will return to the classroom and share their notes. After the notes have been shared, the students will make observations about the human impact on the local environment.



This could very easily be done at the same time as one of the hikes in the **Health and Physical Education** unit (see p. 95 for details).

**Preparation:** filling out the *Environmental Observations* handout

In order to prepare the students for taking good notes on the local area, the teacher should help the students complete the *Environmental Observations* handout (see **TEACHING MATERIALS**).



You may already have developed a similar worksheet that you can easily adapt to this activity, or this worksheet might be adapted to use in other investigations requiring observations and note-taking

### *Look Fors*

The teacher should clearly identify what the students are looking for. Depending on the ability and the readiness of the students, this can be teacher-directed with the teacher telling the students what aspects of the environment the students should be looking for, or it can be a collaborative sharing activity with the class brainstorming the different types of things they should look for. The students should add the following “Look Fors” to their *Environmental Observations* handout:

biotic and abiotic elements of the environment  
human elements in the environment  
human impact on the environment  
indicators of things that are not seen

### *Note-Taking Techniques*

The teacher should also ensure that the students have some idea of the kinds of things that they can do to record what they find in an ecosystem. Again, this can be a teacher-led activity or the class can brainstorm note-taking techniques. The students should add these techniques to their *Environmental Observations* handout. Some of the techniques that should be covered are:

- short-forms and point-form notes
- diagrams, charts, data tables, map, drawings
- photographs, video...

After the class has visited the ecosystem, the students might add other techniques that they found useful.

## *Making Good Observations*

The students should discuss what they can do to ensure that they observe as much as possible. The teacher should ensure that a variety of observation techniques are discussed and added to the students' *Environmental Observations* handout. Some of the observation techniques that can be covered are:

- methodically move from place to place using grid patterns, quadrants, transects, hula hoop outlines etc.
- note locations, diagramming and/or mapping movements
- use all of your senses: touch, stop and smell, close your eyes and listen etc.
- look at, smell and listen to things from all angles
- look, smell and listen in all directions
- bend over, move away, step back etc.
- move, and replace, smaller objects like sticks, pop cans, stones, leaves, paper...
- “take nothing but pictures/notes and leave nothing but footprints”



**AP:** *note-taking* - The *Environmental Observations* sheets can be collected to determine how completely the students have taken notes.



It would be powerful to point out and display good examples of student note-taking from this sheet (see above) so that others students can clearly see what good notes look like.

## **Field Trip – Local Area Investigation**

The visit to the local area to take notes should take approximately one hour. A local site would be best, but transportation to a site at some distance might be better. Areas to visit might include a park, a city block, a farmer's field, the area around a creek or even the area around the school.



It would be good to visit two or even three different kinds of places to give students more varied experience with human impact on the environment. Taking students in rural areas to urban sites and vice versa would be particularly informative.

## *Small Groups*

The students should be divided into small groups of two or three. All students should make observations and take notes but group members should be encouraged to share what they are seeing and how they are recording their observations.

## Perimeter

A reasonable perimeter within which the class will take their notes must be defined. The size of the area covered should take into account the time allotted for making observations, the number of students, adult supervision, and the complexity of the area. It is not necessary for every student to go over the entire area but more than one group should visit each section. This will ensure that each section is observed thoroughly.

## Making Observations

In their groups, the students should move through the area making observations about what they see there, occasionally referring to their *Environmental Observations* handout (see **TEACHING MATERIALS**) to ensure that they are staying on task.

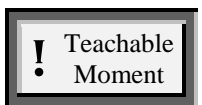


**CM:** while the students make their observations, their oral communication skills could be assessed by observing their collaboration

**AP:** The students' note could be used as evidence of note-taking.

## Post Field Trip Sharing

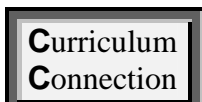
After the field trip and note-taking, the students should share what they have found, adding to and extending their notes. This could be done in a modified Jigsaw activity (see *Think Literacy Cross-Curricular Approaches Grades 7 -12*, p. 170) in which group members split up and share their observations with different groups.



The teacher could also ask the students to share their note-taking and observation experiences so that the students can add to their *Environmental Observations* notes.

## Consolidation

After the students have shared their findings and have added to their observations, they should do an activity or activities to consolidate and summarize what they have found. A number of ways to do this are suggested below. The primary focus of these activities is to deepen their understanding of the ecosystem and to identify the impact of humans on our environment. An example of an assignment entitled "*Name of Local Area*" – *A Case Study of Humans' Impact on Their Environment* can be found in **TEACHING MATERIALS**.



Many of the following activities have links to the **Language** curriculum and could be used to help teach and assess Language expectations.



### *Human Impact on (name of the Local Area) Media Presentation*

The students would choose a number of human impacts on the area observed and describe those impacts in some form of media (a written note, a poster, a brochure, a video, a web site, a letter to the editor of the newspaper, a newspaper article etc.). Student-generated photographs, drawings, diagrams and charts etc. could be used in their media pieces.

### *Field Trip summary note*

The students would create a point-form note summarizing what they found during their field trip. The headings identified in the “Look Fors” section of their *Environmental Observations* handout (biotic and abiotic elements, human impact...) could be used to form the structure of the note.

### *Class Documentary*

The class could create a documentary or a combined newspaper feature article on the human impact on the environment they found in their visit to the local area. Again, student-generated photographs, drawings, diagrams and charts etc. could be used in these media pieces.

### *Environmental Stewardship Strategies*

The students carefully consider the human impact on the local area and determine what they think are powerful things that they can do to be good stewards of our environment.



This discussion can be framed around our role as **Collaborative Contributors** to society, the common good, and to supporting others as **Responsible Citizens** who respects the environment.



Whichever medium is chosen, the students' work should provide evidence for assessment of the following understanding and skills:

**K&U:** ecosystem components; systems and interactions

**TH:** ability to make inferences based on evidence

**CM:** ability to communicate

**AP:** ability to make connections between humans and the environment

**Activity II**  
**Reducing Lunch Waste**  
*Protecting Our Environment, Preserving Our Resources*

## ACTIVITY SUMMARY

The students will consider their impact on the environment by collecting data on waste created by their lunches. They will research the impact of this waste and will consider ways to reduce this impact. The students will create a campaign to make others aware of the impact of their lunch waste on the environment and will make suggestions about how their peers might lessen that impact. At the end of the campaign, the students will collect data again and make conclusions about the success of their interventions and report on the activity as a whole.

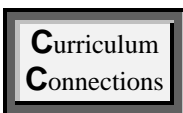


At the end of the year, the students could assess their accomplishments and make suggestions for the following year – these suggestions could then be passed on to the students who will be doing these activities the following year.

## TEACHING OPPORTUNITIES

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

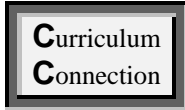
Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• human impact on the environment</li><li>• ecological footprint</li><li>• interdependence</li><li>• sustainability</li><li>• ecosystem, community</li><li>• abiotic and biotic</li></ul>	<ul style="list-style-type: none"><li>• analysing and interpreting (determining cause and effect)</li><li>• initiating and planning</li><li>• collection and organization of data</li><li>• communicating findings</li><li>• making connections</li></ul>



Components of this Activity are directly tied to **Mathematics** and **Language** Activities. The degree to which expectations associated with those curricula are integrated into this Activity will depend on the situation at your school (i.e. degree and ease of integration).

## ACTIVITY DESCRIPTION

During this Activity, the students will think about the waste that they create and do research on the impacts of that waste on the environment. They will then conduct a campaign to encourage their peers to lessen their lunch time waste.



During these activities, the students will use their **Mathematics** skills to collect data and make conclusions about waste and their efforts to address its impact on the environment.



Throughout this Activity, when it is appropriate and you are comfortable doing so, you can refer to God, Jesus and the Holy Spirit to generate a moral imperative. For example, asking “*What would Jesus do?*” in response to waste etc., will set a tone and encourage a moral mindset. In order to do this though, you have to be comfortable and it cannot sound “preachy”.

### Preliminary Reflection

The purpose of this reflection is to get the students to think about what waste is, how it affects the environment, and ultimately, to motivate them to do something about it.

To introduce this reflection, have the students share examples of waste that is created by their lunches (what goes into the garbage). A list of the examples that the students generate can be left on the blackboard, on a sheet of chart paper, a PowerPoint slide, or a page on the class web site so that the students can refer to the list to help them answer the questions below.

After coming up with this list of waste products, have the students do a *Think, Pair, Share* activity (see *Think Literacy Cross-Curricular Approaches Grades 7 - 12*, p. 152) to address the following questions:

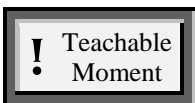
What is waste?

Why is waste a problem?

What are some of the things we can do to solve the problem of waste?

### *Think*

Have the students quickly jot down responses to the three reflection questions. This can be done in complete sentences or point-form depending on student preference.



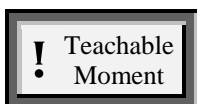
This would be a good opportunity to get students to share their **brainstorming strategies**. After giving them a chance to start writing, stop the class and have them share how they came up with their ideas. The teacher could offer suggestions like spontaneous writing to let ideas flow, or using what you know (list of examples of waste) to help you come up with new ideas. The students would then continue this activity, hopefully using some of the strategies they pick up from this discussion.

### Pair

Have the students share their ideas with one or two other students. They should add their peers' ideas to their own notes.

### Share

As a large, whole-class group, take up some of the students' ideas. Again, the students should add to their notes.



While the students are offering their responses to the reflection questions, the teacher could ask them to **make connections** to things they observed in the *Environment Investigations* Activity (Activity I) or other topics and activities that have been covered earlier in the course.



After the questions have been thoroughly considered, the students could be given the task of **writing a paragraph** response to a question that focuses this activity on Science, like: *What does waste tell us about humans' impact on their environment?*



This paragraph would be a perfect formative assessment opportunity to gauge the students' understanding and skill in the following areas. It could also be adapted to be an "exit card" activity (see the Ministry of Education's *Differentiated Instruction* kit for details).

**K&U:** understanding of human impact on the environment

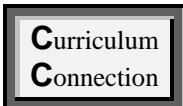
**TH:** ability to recognize cause and effect relationships

**CM:** paragraph writing using appropriate terminology

**AP:** ability to make specific connections using examples

### Data Collection: *What waste do we create?*

Depending on the nature of the school's organization, choose a classroom, series of classrooms, a common area (cafeteria, outside garbage pail, bus stop...) etc. and have the students determine what kinds of waste products are produced by the school population during lunch.

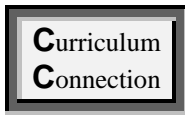


The collection and organization and the analysis of data done here addresses important curriculum expectations in the **Mathematics** curriculum. The related data collection activities are described in detail in the Mathematics unit (see p. 53).

Using the information generated by the data collection exercise (see p. 53 in the Mathematics unit), make a list of common waste products that are produced by the school. This list of waste products will be used in the following exercise.

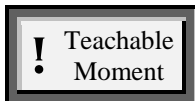
## Lunch Waste Reduction Project: research and media campaign

See the group assignment entitled *Lessening the Impact of One Waste Product* that can be found in the **TEACHING MATERIALS** section.



The media text creation component of this assignment is clearly linked to the **Language** curriculum. The *Creating a Media Text* activity (p. 53) has been developed to be part of this Science and Technology/Math activity.

Each group will choose or be assigned one common waste product (paper, plastic bottles, aluminum cans etc.), and will research how its production and disposal impact on the environment. This research can be done using the Internet, by contacting experts, agencies or companies specializing in waste or waste management (City or Township Departments, Recycling Council of Ontario, Waste Management Canada etc.), by using textbooks, or visiting the library, etc.



Time can be taken here to teach **research skills**. This could include Internet research skills, interviewing skills, use of tables of contents and indexes etc., depending on what has and has not been taught before.



If available, school or public library staff might be used as a resource to help the students complete this Activity.



The media text created in the *Lessening the Environmental Impact of One Waste Product* assignment can be used to assess the following:

**K&U:** accuracy and variety of the information given

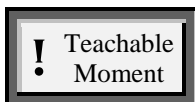
**TH:** ability to problem solve – determine solutions to a waste problem

**CM:** ability to communicate information effectively to the intended audience

**AP:** ability to connect the waste product to the environment

## Sharing

After the media texts have been created, have the students present them to one another. Each student should then be responsible for creating a point-form note on how each of the waste materials researched and presented impacts the environment.



This would be a good opportunity to either teach the students how to write good point-form notes, or have them remind each other what good notes look like.



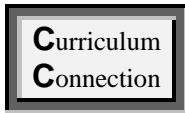
The point-form note could be assessed in the following areas:

**K&U:** understanding of the impact of each waste product

**AP:** ability to write effective point form notes

## Making Conclusions

After the media campaign, the data collection exercise will be repeated to determine if the media campaign has made a difference.



The data collection and conclusion making part of this component of the Activity is done as a Mathematics exercise. See **Mathematics** Activity I (p. 53) for details.

After collecting the data, the students would write a report summarizing their findings.



The *Lunch Waste Reduction Project Report* assignment (see **TEACHING MATERIALS**) has been developed to give the students the opportunity to provide evidence that they have achieved the following expectations:

**K&U:** of ecosystem components and mechanisms

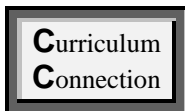
**TH:** ability to make and justify conclusions based on evidence

**CM:** ability to clearly express ideas

**AP:** ability to see the impact of humans and technology on the environment



**CGE 7i** (...respects the environment and uses resources wisely): The connection could be made that there is a religious imperative to our eating and waste disposal habits – God would expect us to eat in a way that respects our environment.



This unit could lead into the **Health and Physical Education** exercise that asks the students to build a meal plan that is both healthy and respects the environment (see p. 92 in the Health and Physical Education unit).

Conservation habits (composting, reusable packaging, buying local etc.) related to food production and disposal could be discussed at other points in **Science and Technology** and in **Geography** classes.

# **SCIENCE AND TECHNOLOGY**

## **Teaching Materials**

## **Environmental Observations**

We are going to visit a local area. When we are there, you are expected to take notes on what you find there.

### **Ecosystem *Look Fors***

You should take notes on all of the following:

### **Note-Taking Techniques**

Some of the techniques that can be used to record what is observed are:

### **Observation Hints**

In order to make good observations you should do the following:



**“Name of Local Area”**  
***A Case Study of Humans’ Impact on Their Environment***

Using the notes that you took and the information that you gathered from others in the class, create a presentation on the **human impact on the environment** you found during the field trip.

You may choose the medium (essay, poster, slide show, radio or TV advertisement etc.) of your report. Choose your medium carefully keeping in mind that you must provide your teacher with evidence of the skills and understanding that will be assessed (see below).

### **Assessment**

Your analysis will be graded using the following rubric. Read it carefully to understand exactly what you should be showing the teacher with your answers.

#### **Knowledge and Understanding**

#### **Level 3**

understanding of **ecosystem components** and **systems and interactions**

- considerable understanding
- accurate use of correct vocabulary most of the time

#### **Thinking**

#### **Level 3**

ability to **make inferences** based on evidence

- one or two impacts presented are accurate but are not obvious

#### **Communication**

#### **Level 3**

ability to clearly **express ideas**

- human impacts are easy to understand
- text features (headings, graphics, colour etc.) are used with considerable effect

#### **Application**

#### **Level 3**

ability to **accurately illustrate** the human impact on the local area

- connections made are clear; some connections are creative

# Lessening the Environmental Impact of One Waste Product

## small group assignment

Your group has been assigned a waste product (paper, water bottles, tin cans etc.). As a group, you must do two tasks.

1. **RESEARCH the impact of the waste product on the environment.** This would include determining the resources used to produce the product and the impact of disposing the product as waste. You must also find **alternatives to throwing the waste product in the garbage** (ways to recycle, reuse, reduce).
2. **CREATE A MEDIA TEXT** (one page flyer, web page or blog, radio or TV ad etc.) to inform the rest of the school about the **consequences of waste** and to **encourage students to reuse, recycle or reduce** their waste.

## Assessment

Your media text will be graded using the following rubric. Read it carefully to understand exactly what you should be showing the teacher with your media texts.

### Knowledge and Understanding

#### Level 3

accuracy and variety of the information given	<ul style="list-style-type: none"><li>• almost all information given is appropriate and varied</li><li>• almost all of the information given is correct</li></ul>
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### Thinking

#### Level 3

ability to problem solve	<ul style="list-style-type: none"><li>• conservation methods are practical</li></ul>
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### Communication

#### Level 3

ability to communicate information effectively to the intended audience	<ul style="list-style-type: none"><li>• communicates clearly, with a good grasp of all basic devices and appropriate vocabulary and terminology; some minor errors</li><li>• devices used are appropriate for the intended audience (other students)</li></ul>
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### Application

#### Level 3

ability to connect the waste product to the environment	<ul style="list-style-type: none"><li>• a variety of impacts are suggested, some are creative</li><li>• conservation methods are appropriate for the product</li><li>• connections made are almost all logical and correct</li></ul>
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# Lunch Waste Reduction Project REPORT

Write a report to present your conclusions after studying the impact of your Lunch Waste Reduction Project. The report must describe what you did and explain whether or not your efforts were successful.

Your report must include all of the following:

- a brief description of the Lunch Waste Reduction Project
- a description of the research you did to determine the success or failure of the project (your data collection)
- a statement of whether or not the project was successful supported by information generated by your data collection
- chart(s) or diagram(s) to support your statement
- ways that the waste reduction project has affected or will affect the environment (refer specifically to resources affected)

## Assessment

Your report will be graded using the following rubric. Read it carefully to understand exactly what you should be showing the teacher.

### Knowledge and Understanding

#### Level 3

understanding of <b>ecosystem components and mechanisms</b>	<ul style="list-style-type: none"> <li>• clear understanding with accurate examples</li> </ul>
---	--

### Thinking

#### Level 3

ability to make and <b>justify conclusions based on evidence</b>	<ul style="list-style-type: none"> <li>• conclusions drawn are accurate and sometimes creative</li> </ul>
--	---

### Communication

#### Level 3

ability to <b>clearly express ideas</b>	<ul style="list-style-type: none"> <li>• organization, conventions and media devices are used to communicate findings clearly</li> </ul>
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### Application

#### Level 3

ability to <b>see the impact</b> of humans and technology on the environment	<ul style="list-style-type: none"> <li>• connections made are clear and are sometimes creative</li> </ul>
ability to <b>create and use tables and charts</b>	<ul style="list-style-type: none"> <li>• charts used are informative and support conclusions drawn</li> </ul>

## Resources and References

Ontario Ministry of Education. *Differentiated Instruction GAINS*. EduGAINS, February 2010. Web. March 23, 2010. <<http://www.edugains.ca/newsite/di/difinstgains.htm>>

Ontario Ministry of Education. *The Ontario Curriculum Grades 1 – 8: Science and Technology*. Toronto: Ministry of Education, 2007.

Ontario Ministry of Education. *Think Literacy: Cross-Curricular Approaches Grades 7 – 12*. Toronto: Ministry of Education, 2003.

# MATHEMATICS

## Description

The Learning Activity described here has been written specifically to support the Lunch Waste Reduction Project Activity in the Science and Technology component. In this Activity the students collect data about the waste created during lunch and then display their findings in appropriate ways. This data collection is repeated to see if the interventions taken as part of the Science and Technology project have an impact on the amount of waste produced.

The data collection exercises described here can be easily adapted to other purposes.

## Activities

There is one Activity in the Mathematics Component.

Activity I – Collecting and Displaying Data

# LEARNING OUTCOMES

## CATHOLIC GRADUATE EXPECTATIONS

During this series of Learning Activities the student will develop as...

CGE 3 - A REFLECTIVE AND CREATIVE THINKER WHO:

c. thinks reflectively and creatively to evaluate situations and solve problems

CGE 7 – A RESPONSIBLE CITIZEN WHO:

i. respects the environment and uses resources wisely

j. contributes to the common good

## MATHEMATICS

### Overall Expectations

#### Number Sense and Numeration

By the end of Grade 7, students will:

- represent, compare and order numbers, including integers
- demonstrate an understanding of proportional relationships using percent, ratio and rate

#### Data Management and Probability

By the end of Grade 7, students will:

- collect and organize categorical, discrete, or continuous primary data and secondary data and display the data using charts and graphs, including relative frequency tables and circle graphs
- make and evaluate convincing arguments, based on the analysis of data

# LEARNING ASSESSMENT

## Summative Assessment of Learning

The **Cross-Curricular Culminating Performance Task** (see p.4) can be used to assess the learning outcomes identified above.

## Formative and Summative Assessment of Learning

The following products, created by the students in the Learning Activities described below, can also be used to assess the learning outcomes. These are identified in each Activity by the *Assessment Opportunity* icon.

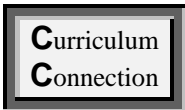
### Activity I – Collecting and Displaying Data

Introduction “Exit Card”

Data Collection Plan brainstorming activity

Data Collection products

*Lunch Waste Reduction Project Report*



Throughout this Activity, the students should be aware that, at the end of the project, they will be responsible for writing a report on their findings (see the *Lunch Waste Reduction Project Report* assignment in the **Science and Technology TEACHING MATERIALS**).

## LEARNING ACTIVITY

There is one *Learning Activity* in the Mathematics unit, entitled *Collecting and Displaying Data*.

**TEACHING MATERIALS** used to support the Learning Activities are referred to in the Activity descriptions and are provided following the description of all of the Learning Activities.

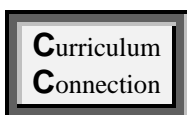
A list of *Resources and References* used to develop and support these Learning Activities can be found after the **TEACHING MATERIALS**.



ACTIVITY I  
**Collecting and Displaying Data**  
*What waste is created during lunch?*

**ACTIVITY SUMMARY**

This Activity is part of a classroom campaign to reduce the amount of waste that the students create during lunch. During this Activity, the students collect data on waste generated by their lunches, chart that data and then use these charts to help the class reduce waste by showing their peers how much waste is created during lunch. The data will also be used to evaluate the effectiveness of the waste reduction campaign.



The data collection in this Activity has been developed to be used to support the *Reducing Lunch Waste* Activity in the **Science and Technology** unit (see p. 38).

**TEACHING OPPORTUNITIES**

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts and Content	Skills
<ul style="list-style-type: none"><li>• mean</li><li>• median</li><li>• primary and secondary data</li><li>• proportion</li><li>• frequency tables</li><li>• pie graphs</li></ul>	<ul style="list-style-type: none"><li>• use measures of central tendency</li><li>• plan data collection</li><li>• collect and organize data</li><li>• choose appropriate ways to display data</li><li>• identify trends</li><li>• make predictions</li><li>• make convincing arguments using data</li><li>• analyze data</li><li>• display data in various forms (frequency tables, bar graphs, pie graphs etc.)</li></ul>

## ACTIVITY DESCRIPTION

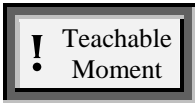
During this Activity, the students will collect data on the waste created during lunch. They will plan the data collection, carry it out, organize the data that is collected and display it in an appropriate format.



While this Activity is set up specifically to collect data related to lunch waste, it could be easily adapted to track other environment-related practices like turning off computers and lights etc.

### Introduction

The teacher will introduce this Activity by identifying the task at hand. In this case, the task is to collect data on waste created during lunch. The goal is to determine what is wasted and how much of each type of waste product is created at lunch. The students will then communicate their findings in an appropriate and powerful way (graphs, charts etc.).



During this discussion, important terms like **data**, **primary** and **secondary data**, **proportion**, **frequency tables** and **pie graphs** etc., should be used when appropriate and timely. When necessary, their meaning should be discussed and examples should be given.

Have the students ask questions to ensure that they understand exactly what they are going to be doing.



To ensure that the students have a good grasp of what they are being asked to do, use an “Exit Card” at the end of your introduction to the Activity. An example question might be: *Use at least 4/5 of the following words to explain what you are being asked to do: chart, collect, data, graph. primary, secondary, table.* The following expectations could be assessed:

**K&U:** of important terms and the purpose of the Activity

**CM:** ability to communicate clearly

## Creating a Data Collection Plan: brainstorming

After ensuring that the students have a clear understanding of the purpose of the data collection activity, have them brainstorm ideas about how the data collection will be carried out.

Give them the following task. This could be done as a *Think, Pair, Share* activity (see *Think Literacy Cross-curricular Approaches Grades 7 – 12*, p. 152), or it can be done entirely in small groups.

Make a plan to determine what waste is created during lunch. Start by thinking of ways to collect your data and then think of ways you can display your findings.

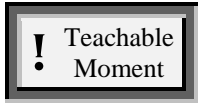
If it would be useful, give the class the *Data Collection steps* (see **TEACHING MATERIALS**) as a guide for their planning.



This would be a good time to circulate amongst the groups to gauge the students' ability to do the following:

**TH:** think through a problem

**CM:** interact in a positive and supportive way (tone, attitude, etc.) to help each other solve the problem at hand



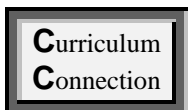
After having assessed the students' problem-solving and group work skills, point out exemplar behaviours.

## Large Group Sharing

After the small groups have brainstormed their data collection and display plans, have them share their ideas to develop a "Lunch Waste Data Collection Plan". Use the *Data Collection steps* as a guide to focus and direct the discussion.

Ensure that they come up with some or all of the steps noted in the *Lunch Waste Data Collection Plan example* (see **TEACHING MATERIALS**). Generate discussion of each point to help the students understand why each step is necessary.

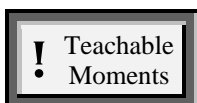
This class' Lunch Waste Data Collection Plan should be displayed somehow (chart paper, slideshow slide, overhead etc.) so that it can be followed each time waste is collected.



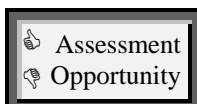
A variety of **computer** programs could be used in this process. Spread sheets (Excel, Google Forms etc. ) could be used to collect, combine and display data, word processing programs could be used to create tables and collect and display data, and presentation software like PowerPoint could be used to present findings and chronicles of the project.

## Data Collection

Data will be collected a number of times to determine whether or not the campaign to reduce lunch waste is successful. Each time data is collected, the students will take on more and more responsibility and independence. This will follow an adapted *Gradual Release of Responsibility* model with the teacher actively guiding the first data collection iteration and slowly removing himself from later collections.



During the data collection, the teacher will have the opportunity to explain or review concepts like **data** and **proportion**. Each data collection iteration will also give the teacher the opportunity to have the students practice **comparing the item totals using fractions and proportions** and then **creating graphs and charts** to display these relationships.



Each time the data is collected, the students can be assessed on their grasp of the following expectations. This can be done informally by observing their work, or by collecting and assessing the products of this work (data tables, charts, diagrams etc.).

**TH:** collection and organization of data

**CM:** communication of findings

**AP:** following data collection plan; production of charts and graphs etc.

Throughout this process, the students should be aware that at the end of the project, they will be responsible for writing a report on their findings (see below).

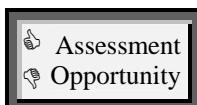
## Report Writing

After the last data collection period, each student will be asked to report on their findings (see the *Lunch Waste Reduction Project Report* assignment in **Science TEACHING MATERIALS**).



The report is meant to address both Science and Mathematics expectations. The last piece of the report, asking the students to suggest environmental impacts of the project could be removed if the report is only meant to assess Mathematics.

The students can work in small groups and with the whole class when appropriate, but they must produce their own report.



The *Lunch Waste Reduction Project Report* can be used to assess the following skills:

**TH:** ability to make a plan to solve a problem; ability to form conclusions based on data

**CM:** ability to present data and conclusions using proper forms (charts, graphs etc.), organization and conventions (symbols etc.)

**AP:** ability to create tables and charts and use them to make connections to the world

# **MATHEMATICS**

## **Teaching Materials**

# **Data Collection** ***steps***

PREPARATION

COLLECTION

SORTING

RECORDING

COMBINING THE DATA

DISPLAYING DATA

DATA ANALYSIS

# **Lunch Waste Data Collection Plan**

## **example**

### **PREPARATION**

- select an area for study (cafeteria, classroom, series of classrooms, staff room etc.)
- decide which items will be tallied (paper, glass bottles, plastic bottles, plastic wrapping, foil, waxed paper, tetra packs/juice boxes, meat products, vegetable products, dry food scraps etc.)
- decide how the waste materials will be recorded (weight, number etc.)
- decide on, and organize, the equipment (rubber gloves, tongs, bins, tarps, scales etc.) needed
- decide on and create or assemble data collection tools that will be used/needed (checklists etc.)
- ensure that there is no waste present BEFORE the school begins lunch – to ensure that only data on lunch waste is collected

### **WASTE COLLECTION**

- after lunch is finished, collect all of the waste; ensure that all waste is placed in bins and that all bins are collected (it will be necessary to coordinate this with administration and custodial staff)

### **SORTING and RECORDING**

- individually, or in groups, sort the waste into groups of items
- record the number/weight of the items

### **COMBINING THE DATA**

- bring all of the data together (this could be done on a spreadsheet)
- come up with totals for each of the waste items

### **DISPLAYING DATA**

- decide on how the data will be displayed (pie graphs, charts etc.)
- create the data display

### **DATA ANALYSIS**

- consider the data that has been collected and come up with observations, conclusions and/or questions (which items are most often present? why are these items present? which items can be recycled/reused/reduced? what changes can be made most easily; what other information would be good to know? etc.)
- if available, compare past to current data

## Resources and References

Ontario Ministry of Education. *The Ontario Curriculum Grades 1 – 8: Mathematics*. Toronto: Ministry of Education, 2007.

Ontario Ministry of Education. *Think Literacy: Cross-Curricular Approaches Grades 7 – 12*. Toronto: Ministry of Education, 2003.



# RELIGIOUS EDUCATION

## **Description**

This Religious Education Unit helps the students to understand the faith-based aspect of their relationship with the environment. They start by considering what Catholicism says about how we should interact with the world that God has given us. The students then do an Activity that puts them in a position to consider what decisions they have to make in order to stay true to the teachings of our religion. Finally, the students plan, participate in and reflect upon a student led outdoor liturgy. In doing this, they will see the deep connection Jesus had with his surroundings and they will develop an understanding of the importance of God's creation.

## **Activities**

There are three Activities in the Religious Education Component.

Activity I – Catholics and the Environment

Activity II – Human Needs vs. Stewardship of God's Creation

Activity III – Outdoor Classroom Liturgy

# LEARNING OUTCOMES

## OVERALL EXPECTATION

The graduate is expected to be:

- a discerning believer formed in the Catholic faith community.

## SPECIFIC CATHOLIC GRADUATE EXPECTATIONS

The graduate is expected to be a discerning believer formed in the Catholic faith community who:

- actively reflects on God's Word as communicated through the Hebrew and Christian scriptures (CGE1c)
- seeks intimacy with God and celebrates communion with God, others and creation through prayer and worship (CGE1f)
- integrates faith with life (CGE1i)

# LEARNING ASSESSMENT

## Summative Assessment of Learning

The **Cross-Curricular Culminating Performance Task** (see p.4) can be used to assess the learning outcomes identified above.

## Formative and Summative Assessment of Learning

The following products, created by the students in the Learning Activities described below, can also be used to assess the learning outcomes. These are identified in each Activity by the *Assessment Opportunity* icon.

### Activity I – Catholics and the Environment

brainstorming ideas – presentation, treatment of peers, note-taking  
*Environmental Commandments* assignment

### Activity II – Human Needs vs. Stewardship of God’s Creation

Scenario: large group sharing  
Scenario: writing assignment

### Activity III – Outdoor Classroom Liturgy

Liturgy Components quiz  
Closure: reflections

## LEARNING ACTIVITIES

The Learning Activities for the **Religious Education** component are organized into three parts.

Catholics and the Environment

Human Needs vs. Stewardship of God's Creation

Outdoor Classroom Liturgy

**TEACHING MATERIALS** used to support the Learning Activities are referred to in the Activity descriptions and are provided following the description of all of the Learning Activities.

A list of *Resources and References* used to develop and support these Learning Activities can be found after the **TEACHING MATERIALS**.

**ACTIVITY I**  
**Catholics and the Environment**  
*How should Catholics treat the environment?*

**ACTIVITY SUMMARY**

The purpose of this Activity is to inform the students about the place of the environment in the Catholic Faith and to help them see their role as Catholics with respect to the environment. Using a variety of resources (the Bible, *Catechism of the Catholic Church*, the Internet etc.), the students will do research to investigate the position of Catholicism and Christianity on the environment. They will then write three “environmental commandments” that all Catholics should follow.

**TEACHING OPPORTUNITIES**

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts and Content	Skills
<ul style="list-style-type: none"><li>• creation</li><li>• liturgy</li><li>• Commandments</li><li>• justice</li><li>• stewardship</li></ul>	<ul style="list-style-type: none"><li>• Internet research</li><li>• respecting the rights and contributions of others</li></ul>

**ACTIVITY DESCRIPTION**

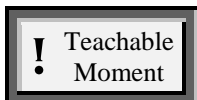
**Introduction**

Tell the students that the purpose of this Activity is to determine the link between religion and the environment. At the end of the Activity, they should have an understanding of how Catholics should treat the environment, and why.

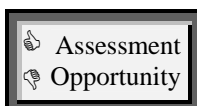
## Brainstorm

Have the students brainstorm answers to the following question: *What does religion have to do with the environment?*

- post the question and have each student jot down their own ideas
- give them some time to share with a partner or small group
- have the students share their answers as a large group
- each student should add their peers' ideas to their own



This would be an excellent opportunity to point out that humans are part of God's creation. As we are created by God, humans have fundamental value and purpose.



As the students are brainstorming and suggesting their ideas, consider, and perhaps keep anecdotal notes on, their strengths and weaknesses in the following areas. The students' notes could also be collected.

**CM:** oral presentation of ideas; note-taking (neat, organized, thorough)

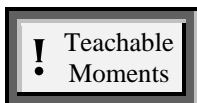
**AP:** respecting the rights and contributions of others

## Internet Research

### Research

Individually, or in pairs, depending on access to the Internet, have the students find answers to this question: *As Catholics, what is our role with respect to the environment?*

As they do their research they should jot down answers to the question, references to support their answers, and any other ideas that might be useful or interesting to know.



It would be useful to have the students share their **Internet research strategies** before, during and after this exercise by providing examples of how they find information to help them complete this task.

It would be helpful to point out appropriate and exemplary responses to this task from time to time while the students are doing their research so that the students can be sure that they are on the right track.

### Sharing

After the class has been given time to do the Internet research, have them share what they have found. Each student would be expected to add to their notes.

## Environmental Commandments

Each student will complete the *Environmental Commandments* assignment. See the assignment hand out in **TEACHING MATERIALS** for details.

The teacher can decide the degree to which the students will work with others to complete this assignment. It would be useful to at least allow the students to edit each others' work at some point before the final product is turned in for grading.



Assessment of the students' understanding and ability could be done in the following areas:

**K&U:** understanding of **Catholics' role with respect to the environment**

**TH:** ability to provide support for a position

**CM:** ability to express ideas clearly (organization, spelling and grammar)

**ACTIVITY II**  
**Human Needs vs. Stewardship of God's Creation**  
*thinking deeply to address ethical dilemmas*

**ACTIVITY SUMMARY**

The purpose of this Activity is to give the students the opportunity to think deeply about the teachings of the Catholic Church and what this means for living in the world.

**TEACHING OPPORTUNITIES**

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

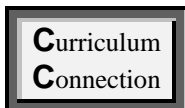
Concepts and Content	Skills
<ul style="list-style-type: none"><li>• choice</li><li>• creation</li><li>• Commandments</li><li>• doctrine</li><li>• Gospel stories</li><li>• justice</li><li>• stewardship</li></ul>	<ul style="list-style-type: none"><li>• evaluation and problem solving</li><li>• Internet research</li><li>• oral communication to persuade</li><li>• written communication</li><li>• use of doctrine and story to support arguments</li></ul>

**ACTIVITY DESCRIPTION**

**Introduction**

Although Bible teachings and laws are often pretty straightforward, real world issues are not.

Give the students examples of complex ethical issues like stealing for your hungry family or using violence to confront evil like Hitler and the Nazis. Encourage them to state their position on these issues and to support their positions with logic.



This would be an excellent opportunity to have the students bring up difficult topics that they are discussing in Geography. Some of these issues can be found on pages 13 and 18 of the **GEOGRAPHY** component.



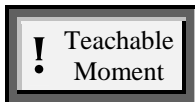
## Scenario

Give the students the following scenario:

*Farmers in a developing nation want to cut down a rainforest so that they can grow food. Many people in the nation are hungry. However, the forest is filled with rare and endangered animals and plants. Should farmers be allowed to use the land?*

### Small group discussion

Have the students discuss the scenario and answer the question in small groups.



After some time has been given to respond to the scenario, stop the class and have the students give examples of **ways to support their positions** with references to Catholic doctrine, Gospel stories and parables etc.

### Large group sharing

As a large group, discuss some of the positions that people would take. Ensure that each of the positions taken is supported by reference to doctrine, the Gospels and other Bible teachings etc. Have the students refer to their *Environmental Commandments* when appropriate.



This large group discussion could easily be carried out as a debate. See p. 18 in the **GEOGRAPHY** component for one example of the format of an in-class or online debate.



In both the small group and large group sharing activities, take anecdotal notes or use checklists to assess the students' ability to do the following:

**CM:** presents ideas clearly and honestly with sensitivity to others

### Writing Assignment

Have each student answer the following question in a well-organized, cleanly written, 100 to 200 word paragraph:

*As a good Catholic ruler of this country, would you let your citizens cut down the rainforest to grow crops? Give examples of Catholic teachings to support your argument.*



The students' paragraphs could be assessed for the following skills:

**TH:** ability to think reflectively and creatively to evaluate situations and solve problems

**CM:** ability to express ideas clearly (organization, spelling and grammar)

**AP:** ability to use appropriate Catholic doctrine and biblical story to support arguments

**ACTIVITY III**  
**Outdoor Classroom Liturgy**  
*using liturgy to help build respect for the environment*

## ACTIVITY SUMMARY

The purpose of this Activity is to help students see the role of liturgy in our lives, particularly with respect to our relationship with the environment. The Activity will also make them more familiar with different aspects of liturgy.

## TEACHING OPPORTUNITIES

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts and Content	Skills
<ul style="list-style-type: none"><li>• creation</li><li>• gospel</li><li>• intentions</li><li>• liturgy</li><li>• responsorial psalm</li><li>• stewardship</li></ul>	<ul style="list-style-type: none"><li>• written communication (organization, spelling and grammar)</li><li>• research (Internet, books, interviews...)</li><li>• making connections between religion and personal habits</li></ul>

## ACTIVITY DESCRIPTION

**NOTE:** The “Student Participation Checklist” (see **TEACHING MATERIALS**) could be used or adapted to assess the quality of the students’ participation in this Activity.

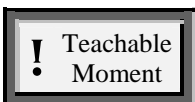
### Introduction



As a preparatory exercise, you might have the students find definitions of the terms mass, liturgy and “liturgy of the word”. These could be used to generate discussion about the liturgy that the class will prepare (see below).

Share with the students that Jesus taught many of his greatest lessons outside (Sermon on the Mount, feeding the masses with fishes and loaves, teaching the apostles to be fishers of men etc.).

Tell the students that they will be preparing an outdoor Liturgy of the Word to celebrate God’s gift of the Earth.



Talk about the meaning and purpose of liturgy and mass. Have the students talk about what they think is the purpose of liturgy and mass.

## Building the Liturgy

### *Liturgy Components*

Divide the class into eight groups. Have each group choose one component of the liturgy from the following list. Draw lots if two or more groups choose the same component.

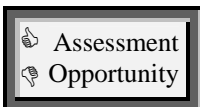
- opening prayer
- first reading
- responsorial psalm
- second reading
- intentions
- closing prayer
- songs
- location of the liturgy

Have each group do research on their component and its purpose. This can be done by doing library or Internet research, by referring to class texts like the *Catechism of the Catholic Church* and the *Daily Missal*, if they are available, or by asking the school chaplain or parish priest for information.

Each group will then be responsible for creating and giving a brief (1-2 minute) **presentation** on their component of the liturgy.



If there is not enough time to do the research for this assignment, the teacher can provide materials outlining the content and purpose of each component to the groups.



After the presentations have been made, the class could be given a quick quiz asking them to suggest three ways that a liturgy would help Catholics understand and improve their relationship with God's creation.

**K&U:** understanding of the components of the liturgy and their purpose

**CM:** ability to communicate clearly (organization, spelling and grammar)

**AP:** ability to make a connection between the liturgical components and our relationship with God's creation

### *Making Content Choices*

Each group is then responsible for deciding on the content of their component.

Give each group the suggestion handout that corresponds to their role (see **TEACHING MATERIALS**).

Have the groups read through the options and select one, or **come up with their own**. This could be done in discussion with the school chaplain or parish priest.



Each group might be asked to present briefly on their choice and take suggestions from the rest of the class.

## *Liturgy Roles*

Make sure all of the students have a role in the set up and celebration of the outdoors liturgy. The following are a list of roles that can be assigned to students:

- Opening Prayer reader(s)
- Closing Prayer reader(s)
- First Reading reader(s)
- Second Reading reader(s)
- Speakers for each verse of the Psalm
- Intention readers
- Singers/Choir/Musicians
- Students to write invitation letters to parents, administration, trustees and the parish priest
- Students responsible for cleaning and setting up the area where the celebration will take place
- Students responsible for creating and distributing orders of service
- Students responsible for welcoming and guiding guests to the celebration area.

Some of the larger passages can be broken up to provide opportunities for more students to take part in the celebration, or to make reading easier for exceptional learners.



Students can create a liturgical dance or drama piece to accompany one of the song selections.

## **Celebration**

Choose a convenient time for the liturgy to take place. Create a backup plan and choose a location to hold the celebration in case of inclement weather.

When appropriate, invite parents, members of the community, other classes, administration etc. to celebrate the liturgy with the class.

Celebrate the student planned outdoor liturgy.



A digital camera can be used to take pictures during the celebration and students could make use of Photostory 3 to create a video reflection.

## Closure

Have the students create a reflective journal entry where they share some of their thoughts on the process of celebrating a Liturgy of the Word. Some prompts could be:

What were some of the things that went really well in planning and taking part in our celebration?

What were some of the things that did not go very well and why?

What would you change if you were to celebrate another classroom liturgy?

What were the differences between praying outside, in the school and at church?

Do you feel that God's creation speaks without words? Why or why not?



Accommodations for learners could include a digital audio recording of their reflective journal, or the use of assistive technology to help create a written document.



The students' reflections could be assessed in the following areas:

**TH:** ability to think reflectively and creatively to evaluate situations and solve problems

**CM:** ability to express ideas clearly (organization, spelling and grammar)

# **RELIGIOUS EDUCATION**

## **Teaching Materials**

# Environmental Commandments

Make a list of **three** Environmental Commandments. Each commandment should be a clear statement of what we should do as Catholics with respect to our environment.

You should provide the following for each commandment:

- an artistic rendering of the commandment which includes
  - the commandment
  - a graphic (pictures, drawings etc.) to illustrate the commandment
- 2 – 4 examples of what we should do to follow the commandment
- an explanation of why the commandment is an important part of Catholicism; this could include a biblical reference, a catechism reference, reference to an important Catholic person or document etc.

## Assessment

Your *Environmental Commandments* will be graded using the following rubric. Read it carefully to understand exactly what you should be showing the teacher with your answers.

### Knowledge and Understanding

#### Level 3

understanding of **the role of Catholics with respect to the environment**

- solid understanding of Catholic teaching with respect to the environment

### Thinking

#### Level 3

ability to provide support for a position

- explanation is logical and supported by at least one reference

### Communication

#### Level 3

ability to express ideas clearly

- commandment is clear
- graphics are clearly connected to the text
- explanation is easy to understand

## **Student Participation Checklist**

**Name:** \_\_\_\_\_

- ☐ **Actively Contributed as a member of the group**
- ☐ **Participated in the liturgy in a reverent manner through set up, prayer, readings or welcoming community members**
- ☐ **Reflected upon the experience in a meaningful way**
- ☐ **Contributed a reading, prayer or saying to the liturgy**
- ☐ **Demonstrated understanding and graciousness upon accepting liturgical role**
- ☐ **Participated actively in classroom discussions regarding liturgical planning**
- ☐ **Demonstrated understanding of the parts of a Liturgy of the Word**
- ☐ **Worked collaboratively with others and showed respect for the contributions of others.**

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## Opening Prayer Selections

### Prayer 1

O God, we thank you for this earth, our home; for the wide sky and the blessed sun, for the ocean and streams, for the towering hills and the whispering wind, for the trees and green grass.

We thank you for our senses by which we hear the songs of birds, and see the splendor of fields of golden wheat, and taste autumn's fruit, rejoice in the feel of snow, and smell the breath of spring flowers.

Grant us a heart opened wide to all this beauty; and save us from being so blind that we pass unseeing when even the common thornbush is aflame with your glory.

For each new dawn is filled with infinite possibilities for new beginnings and new discoveries. Life is constantly changing and renewing itself. In this new day of new beginnings with God, all things are possible. We are restored and renewed in a joyous awakening to the wonder that our lives are and, yet, can be.

Amen.

### Prayer 2

For flowers that bloom about our feet,  
For tender grass, so fresh, so sweet,  
For song of bird, and hum of bee,  
For all things fair we hear or see,  
Father in heaven, we thank Thee!

For blue of stream and blue of sky,  
For pleasant shade of branches high,  
For fragrant air and cooling breeze,  
For beauty of the blooming trees,  
Father in heaven, we thank Thee!

### Prayer 3

O merciful Creator, your hand is open wide to meet the needs of every living creature: We are ever thankful for the gifts of your Creation; and grant that we may be faithful stewards of your world you entrusted to us; We ask this through Jesus Christ our Lord.

## **First Reading Selections**

### **Genesis 1: 28 – 2: 3**

God blessed them, and God said to them, "Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth. God said, "See I have given you every plant yielding seed that is upon the face of all the earth, and every tree with seed in its fruit; you shall have them for food. And to every beast of the earth, and to every bird of the air, and to everything that creeps on the earth, everything that has the breath of life, I have given every green plant for food. And it was so. God saw everything that he had made, and indeed, it was very good. And there was evening and there was morning, the sixth day. Thus the heavens and the earth were finished, and all their multitude. And on the seventh day God finished the work that he had done, and he rested on the seventh day from all the work that he had done. So God blessed the seventh day and hallowed it, because on it God rested from all the work that he had done in creation.

### **Genesis 8: 15 – 22**

Then God said to Noah, "Come out of the ark, you and your wife and your sons and their wives. Bring out every kind of living creature that is with you—the birds, the animals, and all the creatures that move along the ground—so they can multiply on the earth and be fruitful and increase in number upon it." So Noah came out, together with his sons and his wife and his sons' wives. All the animals and all the creatures that move along the ground and all the birds—everything that moves on the earth—came out of the ark, one kind after another.

Then Noah built an altar to the LORD and, taking some of all the clean animals and clean birds, he sacrificed burnt offerings on it. The LORD smelled the pleasing aroma and said in his heart: Never again will I curse the ground because of man, even though every inclination of his heart is evil from childhood. And never again will I destroy all living creatures, as I have done. "As long as the earth endures, seedtime and harvest, cold and heat, summer and winter, day and night will never cease."

### **Anne Frank**

The best remedy for those who are afraid, lonely or unhappy is to go outside, somewhere where they can be quiet, alone with the heavens, nature and God. Because only then does one feel that all is as it should be and that God wishes to see people happy, amidst the simple beauty of nature.

## First Reading Selections (continued)

### Job 38: 1 - 15

Then the LORD answered Job out of the storm. He said:

"Who is this that darkens my counsel  
with words without knowledge?

Brace yourself like a man;

I will question you,  
and you shall answer me.

"Where were you when I laid the earth's foundation?

Tell me, if you understand.

Who marked off its dimensions? Surely you know!

Who stretched a measuring line across it?

On what were its footings set,

or who laid its cornerstone-

while the morning stars sang together

and all the angels shouted for joy?

"Who shut up the sea behind doors

when it burst forth from the womb,

when I made the clouds its garment

and wrapped it in thick darkness,

when I fixed limits for it

and set its doors and bars in place,

when I said, 'This far you may come and no farther;

here is where your proud waves halt'?

"Have you ever given orders to the morning,

or shown the dawn its place,

that it might take the earth by the edges

and shake the wicked out of it?

The earth takes shape like clay under a seal;

its features stand out like those of a garment.

The wicked are denied their light,

and their upraised arm is broken.

## **Psalm Readings Selections**

### **The Glory of God - Psalm 19: 1- 6**

The heavens are telling the glory of God;  
and the firmament proclaims his handiwork.  
Day to day pours forth speech,  
and night to night declares knowledge.  
There is no speech, nor are there words;  
their voice is not heard;  
yet their voice goes out through all the earth,  
and their words to the end of the world.  
In the heavens he has set a tent for the sun,  
which comes out like a bridegroom from his wedding canopy,  
and like a strong man runs its course with joy.  
Its rising is from the end of the heavens,  
and its circuit to the end of them;  
and nothing is hidden from its heat.

### **The Earth is the Lord's - Psalm 24:1**

The earth is the Lord's and all that is in it,  
the world, and those who live in it;  
for he has founded it on the seas,  
and established it on the rivers.

### **The Lord Made the Heavens - Psalm 33: 6-9**

By the word of the Lord the heavens were made,  
and all their host by the breath of his mouth.  
He gathered the waters of the sea as in a bottle;  
he put the deeps in storehouses.  
Let all the earth fear the Lord;  
let all the inhabitants of the world stand in awe of him.  
For he spoke, and it came to be;  
he commanded, and it stood firm.

### **The Lord is a Great God - Psalm 95**

O come, let us sing to the Lord;  
let us make a joyful noise to the rock of our salvation!  
Let us come into his presence with thanksgiving;  
let us make a joyful noise to him with songs of praise!  
For the Lord is a great God,  
and a great King above all gods.  
In his hand are the depths of the earth;  
the heights of the mountains are his also.  
The sea is his, for he made it,  
and the dry land, which his hands have formed.

## Second Reading Selections

### Reading 1

Reader 1: How wonderful, O Lord, are the works of your hands! The heavens declare Your glory, the arch of sky displays Your handiwork.

All: The heavens declare the glory of God.

Reader 2: In Your love You have given us the power to behold the beauty of Your world, Robed in all its splendor.

Reader 3: How wonderful, O Lord, are the works of your hands! The heavens declare Your glory, the arch of sky displays Your handiwork.

All: The heavens declare the glory of God.

Reader 4: In Your love You have given us the power to behold the beauty of Your world, Robed in all its splendor.

Reader 5: The sun and the stars, the valleys and the hills, the rivers and lakes, All disclose Your presence.

All: The Earth reveals God's eternal presence.

Reader 6: The roaring breakers of the seas tell of Your awesome might; The beasts of the fields and the birds of the air bespeak Your wondrous will.

All: Life comes forth by God's creative will.

Reader 7: In Your goodness You have made us able to hear the music of the world.

Reader 8: The raging of the winds, the whisperings of trees in the wood, and the precious voices of loved ones reveal to us that You are in our midst.

All: The Divine voice sings through all of creation.

### Reading 2

A reading according to the Gospel of Matthew

"And why do you worry about clothes? See how the lilies of the field grow. They do not labour or spin. Yet I tell you that not even Solomon in all his splendour was dressed like one of these.

Matthew 6:27-29

## Second Reading Selections (continued)

### Reading 3 - *Canticle of Creation* by St. Francis of Assisi

Be praised Good Lord for Brother Sun  
who brings us each new day.  
Be praised for Sister Moon: white  
beauty bright and fair, with wandering  
stars she moves through the night.  
Be praised my Lord for Brother Wind,  
for air and clouds and the skies of every season.  
Be praised for Sister Water: humble,  
helpful, precious, pure; she cleanses  
us in rivers and renews us in rain.  
Be praised my Lord for Brother fire:  
he purifies and enlightens us.  
Be praised my Lord for Mother Earth:  
abundant source, all life sustaining;  
she feeds us bread and fruit and gives us flowers.  
Be praised my Lord for the gift of life;  
for changing dusk and dawn; for touch  
and scent and song.  
Be praised my Lord for those who  
pardon one another for love of thee,  
and endure sickness and tribulation.  
Blessed are they who shall endure it in  
peace, for they shall be crowned by Thee.  
Be praised Good Lord for sister Death  
who welcomes us in loving embrace.  
Be praised my Lord for all your  
creation serving you joyfully.

### Reading 4 - *Aboriginal Prayer*

"Oh, Great Spirit, whose voice I hear in the wind,  
Whose breath gives life to all the world.  
Hear me; I need your strength and wisdom.  
Let me walk in beauty, and make my eyes ever behold the red and purple sunset.  
Make my hands respect the things you have made and my ears sharp to hear your voice  
Make me wise so that I may understand the things you have taught my people.  
Help me to remain calm and strong in the face of all that comes towards me.  
Let me learn the lessons you have hidden in every leaf and rock.  
Help me seek pure thoughts and act with the intention of helping others.  
Help me find compassion without empathy overwhelming me.  
I seek strength, not to be greater than my brother, but to fight my greatest enemy  
Myself.  
Make me always ready to come to you with clean hands and straight eyes.  
So when life fades, as the fading sunset, my spirit may come to you without shame.

## **Intentions**

The response is “Lord hear our prayer.”

For the good earth which God has given us, and for the wisdom and will to conserve it. We pray to the Lord.

Grant that we learn that what we do to this Earth, we also do to ourselves. We pray to the Lord.

We pray that we cherish both the living water, and the water that flows upon the Earth so that we may help our brothers and sisters who continue to thirst. We pray to the Lord.

Help us to become aware of how our actions here at school can help or hurt innocent people and creatures throughout the world. We pray to the Lord.

## **Closing Prayer Selections**

### **Prayer 1**

There is no place where God is not. God is there in a thousand wonders, upholding rocky barriers, filling the buttercups with their perfume and refreshing the lonely pines with the breath of his mouth. Descend...into the lowest depths of the ocean, where undisturbed water sleeps, and the very sand is motionless in unbroken quiet, but the glory of the Lord is there, revealing its excellence in the silent palace of the sea. Borrow the wings of the morning and fly to the uttermost parts of the sea, but God is there."

His beauty is stamped in all of creation:

The glory of God can be seen

from the smallest raindrop

to the mighty flash of lightning;

from the tiny rosebud

to the huge magnolia blossom;

from the rich, fertile soil of the Mississippi Delta

to the arid, dusty land of the desert.

We can see His stamp of glory in all the world,

from the music of a sparkling brook

to the majestic tumbling waterfall;

from the gnarled, gentle hands of a loving grandfather

to the birth-fresh fragility of a baby's fingernail;

from the silence of the stars to the peal of thunder;

from the mirror-like smoothness of a placid lake

to the wind-driven thunderous waves smashing on the shore.

In the fresh greenery of the spring; in the dazzling color of autumn; in the joy of discovery on a baby's face; and in the fulfillment and meaning of the New Birth, we can see the glory of God.

### **Prayer 2**

Love all God's creation, the whole and every grain of sand in it.

Love every leaf, every ray of God's light.

Love the animals, love the plants, love everything.

If you love everything, you will perceive the divine mystery in things.

Once you perceive it, you will begin to comprehend it better everyday.

And you will come at last to love the whole world with an all-embracing love."



## **Closing Prayer Selections (continued)**

### **Prayer 3**

May the God of the misty dawn waken you,  
May the God of the rising sun stir you up,  
May the God of morning sky send you on your way,  
May the God of noon-day stillness renew your strength,  
May the God of afternoon bring you home,  
May the God of sunset delight your eye,  
May the God of twilight calm your nerves,  
And may the God of dusk bring you peace.  
And may God bless you,  
The rising and the setting sun,  
The Alpha and the Omega,  
The Beginning and the end,  
Father, Son and Holy Spirit.

### **Prayer 4**

May the blessings of light be on you—light without and light within.  
May the blessed sunshine shine on you and warm your heart until it glows like a great peat fire—so that the stranger may come and warm himself, and also a friend.  
And may the light shine out of the two eyes of you, like a candle set in two windows of a house, bidding the wanderer to come in out of the storm.  
May the blessing of the Rain be on you—the soft, sweet rain.  
May it fall upon your spirit, so that all the flowers may spring up, and shed their sweetness on the air.  
And may the blessing of the Great Rains be on you: may they beat upon your spirits and wash it fair and clean and leave there many a shining pool, where the blue heaven shines reflected—and sometimes a star.  
And may the blessing of the Earth be on you—the great round earth.  
May you ever have a kindly greeting for those you pass, as you're going along the roads.  
May the earth be soft under you. When you lie out upon it, tired at the end of the day. And may it rest easily over you, when at last you be out under it. May it rest so lightly over you that your soul may be quickly through it, and up, and off, and on its way to God.

## **Song Selections**

### **Catholic Book of Worship III**

531 For the Beauty of the Earth

532 For the Fruit of All Creation

534 Let All Things Now Living

537 God, Whose Firm is All Creation

542 Canticle of the Sun

545 Sing Out, Earth and Skies

548 All the Ends of the Earth

## **Location Selections**

School Courtyard

Field

Hill

Near trees

Garden

## Resources and References

Canadian Conference of Catholic Bishops. *Believe In Me*. Ottawa: Canadian Conference of Catholic Bishops, 2003.

Canadian Conference of Catholic Bishops. *Catechism of the Catholic Church*. Ottawa: Canadian Conference of Catholic Bishops, 1992.

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The Catholic Liturgical Library. *General Instruction of the Roman Missal (4th Edition)*, 1975. Accessed from <http://www.catholicliturgy.com/index.cfm/FuseAction/DocumentContents/Index/2/SubIndex/11/DocumentIndex/1>

Novalis. *The Daily Missal*. Montreal: Novalis, 2010.

Wood, Douglas. *Grandad's Prayer for the Earth*. Cambridge, Massachusetts: Candlewick Press, 1999.

# HEALTH AND PHYSICAL EDUCATION

## Description

The focus of these Activities is the concept of **active living**. The students will think about the implications of eating, hiking and their own athletic activity on their fitness and health. They will create a menu, plan and go on a hike and write a report on an individual or team sport in which they participate.

The Health and Physical Education curriculum provides a number of opportunities for students to integrate an awareness of and respect for the environment into these class activities. In each of these Activities, the students will be asked to consider their impact on the environment as well as the benefits for their own physical well-being.

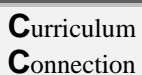
## Activities

There are three Activities in the Health and Physical Education Component.

Activity I – Healthy Eating

Activity II – Hiking

Activity III – Participation in Individual and Team Sports



The link to the environment is made when the students consider how healthy eating, hiking and participation in their sport impacts on the environment.

# LEARNING OUTCOMES

## CATHOLIC GRADUATE EXPECTATIONS

CGE1e, Speaks the language of life..."recognizing that life is an unearned gift and that a person entrusted with life does not own it but that one is called to protect and cherish it."

CGE3c, Thinks reflectively and creatively to evaluate situations and solve problems

CGE3e, Adopts a holistic approach to life by integrating learning from various subject areas and experience.

CGE3f, Examines, evaluates and applies knowledge of interdependent systems (physical, political, ethical, socio-economic and ecological) for the development of a just and compassionate society

CGE7i, Respects the environment and uses resources wisely

## HEALTH AND PHYSICAL EDUCATION

### Overall Expectations

By the end of Grade 7, students will:

#### *Living Skills*

- demonstrate the personal and interpersonal skills and the use of critical and thinking processes as they acquire knowledge and skills in connection with the expectations in the Active Living, Movement Competence and Healthy Living strands for this grade.

#### *Active Living*

- participate actively and regularly in a wide variety of physical activities, and demonstrate an understanding of factors that encourage lifelong participation in physical activity;
- demonstrate an understanding of the importance of being physically active, and apply physical fitness concepts and practices that contribute to healthy, active living;
- demonstrate responsibility for their own safety and the safety of others as they participate in physical activities

#### *Healthy Living*

- demonstrate the ability to apply health knowledge and living skills to make reasoned decisions and take appropriate actions relating to their personal health and well-being;

#### *Movement Competence: Skills, concepts and strategies*

- apply movement strategies appropriately, demonstrating an understanding of the components of a variety of physical activities, in order to enhance their ability to participate successfully in those activities

# LEARNING ASSESSMENT

## Summative Assessment of Learning

The **Cross-Curricular Culminating Performance Task** (see p.4) can be used to assess the learning outcomes identified above.

## Formative and Summative Assessment of Learning

The following products, created by the students in the Learning Activities described below, can also be used to assess the learning outcomes. These are identified in each Activity by the *Assessment Opportunity* icon.

### Activity I – Healthy Eating

student menus

*Environmental Impact Assessment* reports

### Activity II – Hiking

*Planning a Nature Hike* assignment

*Environmental Impact Assessment* assignment

### Activity III – Participation in Individual and Team Sports

*Sporting Activity Report* assignment

## LEARNING ACTIVITIES

The *Learning Activities* for the **Health and Physical Education Component** are organized into four parts.

Activity I – Healthy Eating

Activity II – Hiking

Activity III – Participation in Individual and Team Sports

**TEACHING MATERIALS** used to support the Learning Activities are provided following the description of all of the activities.

A list of *Resources and References* used to develop and support these Learning Activities can be found after the **TEACHING MATERIALS**.

**ACTIVITY I**  
***Healthy Eating***  
***choosing food to improve health and avoid illness***

## ACTIVITY SUMMARY

In this Activity the students will develop a daily healthy eating menu. They will then consider the impact of healthy eating on the environment.

## TEACHING OPPORTUNITIES

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• nutrition</li><li>• food types</li><li>• healthy eating practices</li></ul>	<ul style="list-style-type: none"><li>• problem-solving</li><li>• brainstorming</li><li>• effective communication using appropriate terminology</li><li>• numeracy skills</li><li>• making connections between food and body type</li><li>• making connections between eating and environment</li></ul>

## ACTIVITY DESCRIPTION

### Menu Planning Assignment

Students are given a budget of \$25 each to plan their food consumption for the day. They must consider the impact that food has on their body, their overall fitness and their health in general. Using flyers, grocery store websites, or even a trip to the grocery store, they will create a “healthy” menu for that day. This menu should include all meals, snacks and drinks that they will need. They should try to choose food that they would actually eat, rather than what they think they should eat.

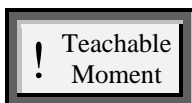
### *Brainstorming*

Before the students start working on their own menus, discuss, in groups or as a class, what “healthy” snacks and meals would look like. Use the *Daily Meal Plan checklist* (see **TEACHING MATERIALS**) to ensure that they have addressed all of their nutrition needs in their meal plan.



It would be useful to have a Canada Food Guide poster to refer to during this activity. These are available from Health Canada.

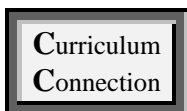




This would be the perfect opportunity to make connections between the types of food and the physical needs that they address.

### *Menu Planning*

Students, working in groups to encourage discussion and sharing of ideas, will then look through the grocery flyers and/or Internet sites and plan a daily menu. The students' reports can take many forms, but they must describe the meals and snacks etc. and their cost.



**Numeracy:** This Activity has obvious connections to numeracy, particularly basic calculation and record keeping skills.

**Language:** The format of the reports could be assigned so that students are given the opportunity to use a variety of Language skills.



It would be interesting to give the students, perhaps those who complete this activity before their peers, the opportunity to use their budget to create an “unhealthy” menu.



The students' menus could be used as evidence of the following knowledge and skills:

**K&U:** healthy eating practices

**TH:** problem-solving – ability to create an appropriate menu

**CM:** ability to express ideas clearly using appropriate terminology

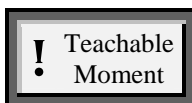
### **Environmental Impact Assessment**

See the “Environmental Impact Assessment” Assignment (in **CROSS-CURRICULAR TEACHING MATERIALS**, p. 161) for details.

### *Brainstorming/Sharing*

After completing the Menu Planning exercise, have the students list 10 to 15 ways that healthy eating impacts on or is impacted by the environment.

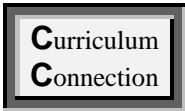
Have the class share their impacts with each other, adding to their own ideas.



**Brainstorming/Thinking Strategies:** The students might also share how they came up with the connections between the environment and their menus.

### *Individual Student Assignment*

After listing the environmental needs and impacts of healthy eating, the students could be asked to choose four/five/six varied needs and impacts and describe them carefully. For each impact they should also suggest one way to lessen its impact. This could be done in sentences, as a chart, or even as a poster or web page etc.



The aspect of this activity that asks students to suggest ways to lessen their environmental impact is closely related to **Science and Technology** Activity II (see p. 38 for details).



The students' reports could be used as evidence of the following skills:

**CM:** ability to clearly communicate ideas

**AP:** ability to make connections between healthy eating and the environment

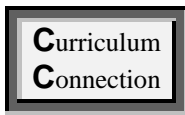


It would be interesting to have the students compare the environmental implications of healthy vs. unhealthy diets.

**ACTIVITY II**  
***Nature Walk / Hiking***  
***hiking to achieve personal fitness goals***

## ACTIVITY SUMMARY

In this Activity the students will plan and then go on a nature hike. They will then consider the impact of hiking on the environment.



This Activity could be very easily linked with the *Environmental Investigations* Activity (see p. 33) in the **Science and Technology** component.

## TEACHING OPPORTUNITIES

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• fitness</li><li>• agility</li><li>• strength</li></ul>	<ul style="list-style-type: none"><li>• planning/problem-solving</li><li>• determining the impact of human activity (hiking, tourism, etc.) on the environment</li><li>• brainstorming strategies</li><li>• effective communication</li><li>• making connections between activities and fitness</li><li>• making connections between environment and God</li><li>• mapping skills</li></ul>

## ACTIVITY DESCRIPTION

### Introduction

The students will plan a nature hike in the local area. Before assigning this task, decide on an appropriate length for the walk/hike.

Tell the students that they will develop a nature walk/hike for the class. The hike should provide a mix of fitness and beauty or interesting scenery. An important purpose of this Activity is to help students develop activities that will help them achieve their physical fitness goals.

## Class Assignment: Planning a Nature Hike

The purpose of this assignment is to give the students the opportunity to enjoy a hike through nature in order to get them excited about being outdoors and participating in healthy activity.

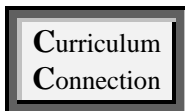
See the “Planning a Nature Hike” assignment in **TEACHING MATERIALS** for details.



**Physical benefits of hiking:** Before, during or after the students are doing the brainstorming, the students can share the benefits of hiking (cardio vascular fitness, agility gained by avoiding obstacles, strength developed by attacking steep inclines etc.). It might be necessary to inform the students about some of these benefits.



A link could be made to Activity I by having the students suggest the kinds of snacks that would be best suited to this type of physical activity.



**Geography** can be easily incorporated into this Activity by having the students **use local maps**, by identifying the **differences between urban and rural** hikes and by encouraging students to choose settings that will give them the chance to **appreciate the environment and our impact** on it.



The “Planning a Nature Hike” assignment allows for assessment in the following areas:

**K&U:** fitness, strength and agility benefits

**TH:** ability to plan within parameters

**CM:** ability to express ideas effectively

**AP:** ability to make connections between an activity and its benefits

## Taking a Hike

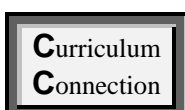
Choose one of the students’ hikes or have the students choose a hike based on their peers’ presentations.



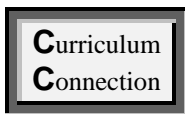
If this Activity is started early in the year, the students could go on a number of hikes in a variety of different settings.



While the students are “in nature” they should be encouraged to reflect on its beauty and the feelings that this beauty invokes. Where appropriate, a connection between this feeling and God, or the Holy Spirit, could be made.



If the class did a variety of different hikes throughout the year, they could chart their improvement in fitness based on indicators like speed, heart rate, BMI etc. using a variety of **Mathematics** skills (data collection and graphing etc.).



**Science and Technology:** While participating in the hike or hikes, the students could be asked to take notes on the evidence of human impact on their environment. This could be easily integrated with the “Environmental Investigations” Activity described on p. 33.

## Environmental Impact Assessment

See the “Environmental Impact Assessment” assignment (see p. 161 in **Appendix I - Cross-curricular Teaching Materials...**) for details.

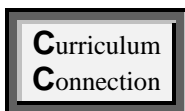
This Activity is almost identical to the one described in Activity I (*Healthy Eating*). The teacher must decide how much of this exercise has to be repeated.



The students’ reports on the environmental impacts of their activities would provide another opportunity to practice the skills assessed. As well, reports written in earlier activities could be used formatively, while latter reports could be used as evidence for summative assessment.

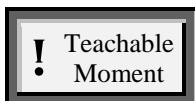
## Brainstorming/Sharing

After completing the hiking activities, have the students list 10 to 15 ways that hiking impacts on or is impacted by the environment.



**Geography:** It would be interesting to see if the students might be able to connect their experience to the impact of similar eco-tourism activities in developing countries.

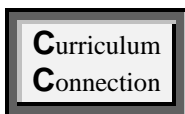
Have the class share their impacts with each other adding to their own ideas.



**Brainstorming/Thinking Strategies:** The students might also share how they came up with the connections between the environment and their menus.

## Individual Student Assignment

After listing the environmental needs and impacts of hiking, the students could be asked to choose four/five/six varied needs and impacts and describe them carefully. For each impact they should also suggest one way to lessen its impact. This could be done in sentences, as a chart, or even as a poster or web page etc.



The aspect of this activity that asks students to suggest ways to lessen their environmental impact is closely related to **Science and Technology** Activity II (see p. 38 for details).



The students' reports could be used as evidence of the following skills:

**CM:** ability to clearly communicate ideas

**AP:** ability to make connections between healthy eating and the environment

### ACTIVITY III

## *Participation in Individual and Team Sports*

### *analyzing the impact of sport on health and fitness and the environment*

#### ACTIVITY SUMMARY

Each student will create a report on a sport in which they participate. The report will ask them to make connections between the sport and their health and fitness, the environment and God. The report could be used to summatively assess the understanding and skills developed in this Health and Physical Education unit.

#### TEACHING OPPORTUNITIES

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"> <li>• fitness</li> <li>• agility</li> <li>• strength</li> </ul>	<ul style="list-style-type: none"> <li>• clear and effective communication</li> <li>• use of appropriate text features of slideshows, video, posters, written reports etc.</li> <li>• making connections between the sport and the student's body, the environment and religion</li> </ul>

#### ACTIVITY DESCRIPTION

Each student will create a report on a sporting activity. The *Sporting Activity Report* assignment handout in **TEACHING MATERIALS** can be used as is or it can be adapted to meet the needs of each class.



This Activity could be used formatively for review, or it could be used as a culminating performance task.



Depending on the population, the students might be allowed to do their report on electronic gaming activities like *Wii Sports*.

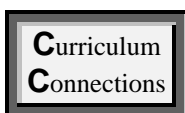


The students' reports allow you to assess the following:

**K&U:** understanding of fitness, agility, strength etc.

**CM:** ability to communicate clearly using text features

**AP:** ability to make connections between sport and healthy bodies, the environment and religion



**Language:** The report format would provide evidence of a number of writing and/or media skills.

# **HEALTH AND PHYSICAL EDUCATION Teaching Materials**



## DAILY MEAL PLAN CHECKLIST

Things to consider as you plan your meals for the day.

Each meal contains elements of the 4 major food groups as set out by Canada's Food Guide.

Throughout the day, you have consumed the appropriate number of servings from each food group as set out by Canada's Food Guide.

Water and other beverages are included in your daily food plan.

You have included food that you will actually eat.

You have used as much of your \$25 dollars as is possible to create the best daily meal plan.

# Planning a Nature Hike

**Brainstorming:** physical benefits, possible settings

Make a list of the physical benefits (fitness, development of strength and agility etc.) of a hike. Keep in mind how a hiking activity will help you achieve the kind of fitness and physical health you would like to have.

After getting some direction from your teacher, make a list of possible settings for your hike.

## Planning

Plan a hike in your area that will help you maximize the physical benefits but that will also allow you to enjoy the setting of the hike. Choose an appropriate location and suggest a route.

## Presentation

Create a short presentation to illustrate the benefits of your route. This presentation could take many forms: a poster, a short video, a brief slide presentation etc.

## Assessment

Your presentation will be assessed using the following rubric. Review it carefully to understand exactly what your presentation should be showing the teacher.

### Knowledge and Understanding

#### Level 3

fitness, strength and agility benefits	<ul style="list-style-type: none"><li>• these concepts are clearly understood</li></ul>
--	---

### Thinking

#### Level 3

ability to plan within parameters	<ul style="list-style-type: none"><li>• follows the parameters for distance and location</li><li>• gives hikers an opportunity to appreciate a beautiful setting</li></ul>
-----------------------------------	--

### Communication

#### Level 3

ability to express ideas	<ul style="list-style-type: none"><li>• communicates ideas and information clearly</li><li>• uses text (poster, slide show, video etc.) devices effectively</li></ul>
--------------------------	---

### Application

#### Level 3

ability to make connections	<ul style="list-style-type: none"><li>• makes a clear connection between the hike and physical fitness and health</li></ul>
-----------------------------	---

# Sporting Activity Report

Create a report on one individual or team sport in which you participate. Your report must include the following things:

- a description of the activity and your participation in it (amount of time, location, your role etc.)
- a description of the athletic benefits (fitness, strength, agility etc.) that can be derived from the activity
- an explanation of how this activity helps you achieve your personal fitness goals; give specific examples where possible
- an environmental impact analysis: aspects of the environment necessary in order to participate in this activity and ways in which the activity impacts the environment
- an explanation of how participation in this activity is a good thing from a Catholic perspective

## Report Format

You may choose the format of your report. It can be done in a written form, or as a poster, slideshow, web page or video etc. Carefully choose a format that allows you to meet the requirements of this project (see above and below).

## Assessment

Your report will be assessed using the following rubric. Review it carefully to understand exactly what your report should be showing the teacher.

Knowledge and Understanding	Level 3
-----------------------------	---------

fitness, strength and agility	<ul style="list-style-type: none"><li>• these concepts are clearly understood</li></ul>
-------------------------------	---

Communication	Level 3
---------------	---------

ability to express ideas	<ul style="list-style-type: none"><li>• communicates ideas and information clearly</li><li>• uses text (poster, slide show, video etc.) devices effectively</li></ul>
--------------------------	---

Application	Level 3
-------------	---------

ability to make connections	<ul style="list-style-type: none"><li>• makes clear and logical connections between the sport and the environment, religion, and building health and fitness</li></ul>
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## Resources and References

Ontario Ministry of Education. *The Ontario Curriculum Grades 1 – 8: Health and Physical Education*. Toronto: Ministry of Education, 2010.

Ontario Ministry of Education. *Think Literacy: Cross-Curricular Approaches Grades 7 – 12*. Toronto: Ministry of Education, 2003.

# HISTORY

## Description

This Component contains one Activity divided into a number of exercises that will put students in a position to deeply consider the differences between aboriginal people living in 16<sup>th</sup> and 17<sup>th</sup> Century New France/Canada and our current reality. By considering the differences between the production and consumption of food in the two time periods, students will experience the past and the lives of the Aboriginal people and, at the same time, they will think deeply about how something as simple as eating, shapes our relationship with our environment.

## Activities

There is one Activity in the History Component.

### Activity I – Food Production: Then and Now

#### Curriculum Connections

This unit is connected to and could lead into other curriculum areas in a number of ways.

**Geography:** effect of local geography (*Place*) on eating habits

**Health and Physical Education:** healthy eating and lifestyle

**Language:** report writing, scripture reading and interpreting graphics

**Religion:** respect for the environment; importance of sharing food

**Science and Technology:** impact of humans and technology on the environment

# LEARNING OUTCOMES

## **CATHOLIC GRADUATE EXPECTATIONS**

During this series of Learning Activities the student will develop as...

### **CGE 1 – A DISCERNING BELIEVER FORMED IN THE CATHOLIC FAITH COMMUNITY WHO:**

- c. actively reflects on God's Word as communicated through the Hebrew and Christian scriptures.

### **CGE 3 – A REFLECTIVE AND CREATIVE THINKER WHO:**

- c. thinks reflectively and creatively to evaluate situations and solve problems

### **CGE 7 – A RESPONSIBLE CITIZEN WHO:**

- i. respects the environment; uses resources wisely

## **HISTORY: New France**

### **Overall Expectations**

By the end of Grade 7, the students will:

identify and explain similarities and differences in the goals and interests of various groups in New France, including French settlers, First Nations peoples, and both French and English fur traders.

# LEARNING ASSESSMENT

## Formative and Summative Assessment of Learning

The following products, created by the students in the Learning Activities described below, can be used to assess the learning outcomes. These are identified in each Activity by the *Assessment Opportunity* icon.

### Activity I – Food Production: Then and Now

#### Food Flow Charts

*Most Important Differences* integration exercise

*Food Chart Analysis* sharing

*Food Chart Analysis* report

## LEARNING ACTIVITY

There is one Learning Activity: ***Our Food: Then and Now*** in this component. It is organized in three parts:

Differences Between Then and Now

Creating Food Flow Charts

Food Flow Chart Analysis

**TEACHING MATERIALS** used to support the Learning Activities are referred to in the Activity descriptions and are provided following the description of all of the Learning Activities.

A list of *Resources and References* used to develop and support these Learning Activities can be found after the **TEACHING MATERIALS**.



**ACTIVITY I**  
**Food Production: Then and Now**  
*comparing modern and Native Peoples' production and consumption of food*

## ACTIVITY SUMMARY

During this Activity, the class will identify the differences between the way Native Peoples produced and consumed food and the way we produce and consume food now. They will investigate food processes and habits of the Native Peoples in the early years of European settlement and compare those habits with current food processes and habits. By doing this they will see how lives have changed in many ways, including in our relationship to the environment.

## TEACHING OPPORTUNITIES

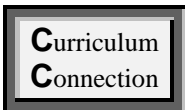
The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• lives of aboriginal peoples</li><li>• changes in technology</li></ul>	<ul style="list-style-type: none"><li>• brainstorming</li><li>• analysis: integrating, evaluating and synthesizing</li><li>• comparing and contrasting</li><li>• communicating using written text and graphics</li><li>• oral communication</li></ul>

## ACTIVITY DESCRIPTION

### Preparation

This Activity would be best done when the students are thinking about how we live with our environment. If possible, it would be very powerful for the students to be thinking of the changes in our eating habits and food production while having recently considered the spiritual and catechetical implications of our relationship with the environment.



The **Religious Education** component of this Cross-Curricular Project addresses many of these issues and would give the students many opportunities to link their faith with other the curriculum areas.



CGE 7 asks the students to consider their roles as **responsible citizens**. By asking the students to think deeply about something as basic as what they eat, we make a very close connection between our faith and our everyday lives.



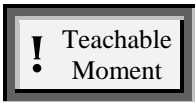
**Motivational Hook:** The teacher could make the link between History and Catholicism by starting this Activity with a reflection on Gospel stories like the fishes and loaves (Matthew 14:15-21), by referring to the importance of food at the Last Supper (Luke 22: 7-23), or even by making a connection to the Lord's Prayer ("Give us this day our daily bread").

### Differences between then and now

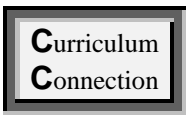
The following discussion is carried out in a *Think, Pair, Share* instructional format (see *Think Literacy Cross-Curricular Approaches Grades 7 - 12*, p. 152).

*Think: individual brainstorming*

**Task:** Make a list of differences in the lives of people now and aboriginal people living at the time that the French first came to Canada. The "H Chart" found in **TEACHING MATERIALS** could be used to help the students organize their ideas.



This is a perfect opportunity to teach/share **brainstorming strategies**. Give the students some time to start this task then stop the class and have them share the strategies they used to come up with ideas. Point out that they could use general characteristics of the people or characteristics of the time periods to help them generate more specific ideas.



Any work with brainstorming is connected to the concept of **metacognition** studied in **Language**. By thinking about ways to stimulate their thinking to generate ideas, the students are practicing metacognition.

After letting them brainstorm a bit more, have the students focus the differences on **food production and consumption**. Use the differences that they have generated to suggest ways that food production and consumption would be different between then and now. Point out that this is a good way to use general ideas (differences in time periods) to help them come up with more specific information (food differences).

*Pair: sharing with one or two other students*

Have the students share their ideas, adding to what they already have. Encourage them to look at their partner(s)' initial ideas (general differences) to see if those can be used to prod their thinking about differences in food production.

*Share: large group*

Take up the ideas that the students have come up with under the following heading:

Changes in Canada: 17<sup>th</sup> to 21<sup>st</sup> Century  
Differences in Food Production and Consumption



This could be done in graphic form on the blackboard or SMART Board, or using SMART Ideas (and a projector). First, make a list of the differences between then and now, then link those differences to changes in food production and consumption.

*Integration*

Have the students consider what that they have come up with and write a short description of what they think are the Most Important Differences.



**Differentiation Opportunity:** Each student could be allowed to choose the form (sentences, quick point-form notes, in a chart etc.) of presentation.



The *Most Important Differences* descriptions could be assessed in the following areas:

**K&U:** general understanding of the earlier time period

**TH:** ability to identify important differences in food production

**CM:** ability to clearly express ideas in the form chosen

## Creating Food Flow Charts

*Introduction*

Tell the students that they are going to use the information they came up with in the previous task to help them create flow charts that describe the steps that go into the production and consumption of one food item. Flow charts will be created for each time period. The flow charts will show all of inputs (**energy, materials, labour**) and outputs (**food item, waste, pollution**) at each stage.

**Example:** Show the students the corn flow charts from the two time periods (see **TEACHING MATERIALS**).

Give the students the opportunity to ask questions to ensure that they understand what they are being asked to do.

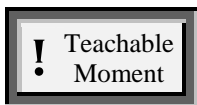
### *Large Group Brainstorming*

Ask students to share some of the things that they had eaten that day. List them on the blackboard or chart paper.

### *Group Work*

Organize students into small groups and have them choose a food item listed or an appropriate one of their choosing. Each group should choose a different food item if possible. Ensure that groups are assigned foods that they are capable of analyzing.

Each group should then create their two flow charts.



Depending on the independence and ability of the class, the teacher can either give a lesson on native peoples' food, technologies and production methods or the students could be given the task of doing their own research.



The students might want to do **Internet research** on their food item. The Canadian Museum of Civilization and other museums have web sites that describe aboriginal life, the food they ate and how it was produced.



The students' flow charts could be assessed in the following areas:

**K&U:** general understanding of the two time periods

**TH:** ability to derive cause and effect relationships

**CM:** ability to communicate clearly using text features and terminology

### **Food Flow Chart Analysis – *differences between time periods***

After the flow charts have been created, the students will analyze their charts. They will do this by answering the following questions.

What are the main differences you see between the two charts? The differences might fall in some or all of the following areas:

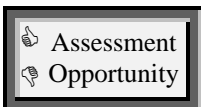
- kinds of food eaten
- quality of the food
- use of technology
- impact of eating on the environment
- peoples' relationship to the environment
- values

## Sharing

Allow students to share their food charts and analysis with their peers by presenting the charts and pointing out the important differences that they could see. The class would then suggest other differences that they can see.



In order to help students determine differences, the *Environment Impact Assessment* (see APPENDIX I – CROSS-CURRICULAR TEACHING MATERIALS, p. 161) could be done for both time periods.



While the students are sharing, the students' skill and understanding could be assessed in the following areas. Observations made in these areas could determine the focus of future learning activities.

**K&U:** the general lifestyle of the aboriginal peoples in the 17<sup>th</sup> Century

**TH:** ability to identify *important* differences

**CM:** ability to communicate orally in large groups

**AP:** ability to make connections between then and now

## Analysis Report

Each student will write a report on the differences between Native Peoples' use of food in the 17<sup>th</sup> Century and food production now. The following task could be used to assign the report:

Carefully describe three differences between the way the Native Peoples produced and consumed food in the 17<sup>th</sup> Century and the way we produce and consume food now. This report should be no longer than one page (approximately 200 words).



The Analysis Report can be used as evidence to assess the following:

**K&U:** knowledge of life of native peoples in 17<sup>th</sup> Century

**TH:** ability to identify important differences (environment, technology, values etc.)

**CM:** ability to clearly communicate ideas

**AP:** ability to use examples to describe differences

# **HISTORY**

## **Teaching Materials**

Name:\_\_\_\_\_

**Similarities and Differences  
H – Chart**

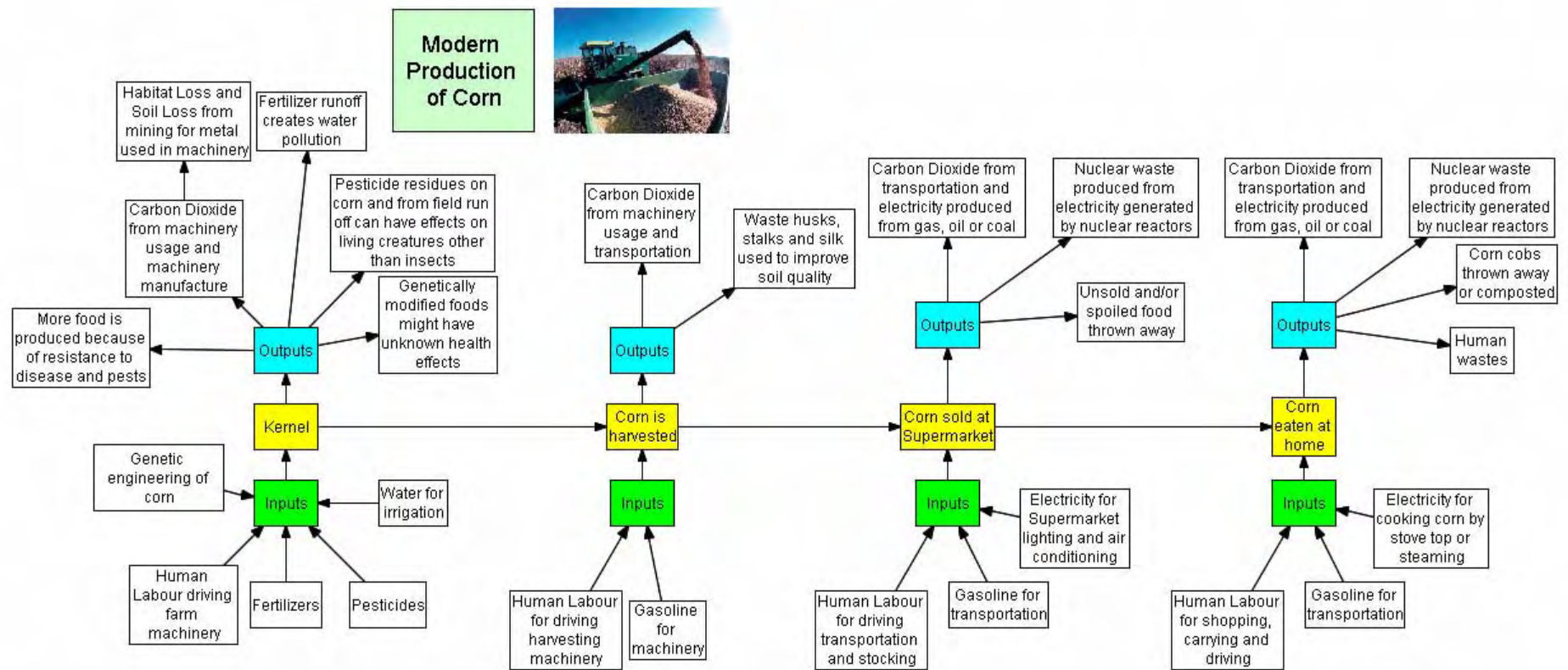
Today

New France

Differences

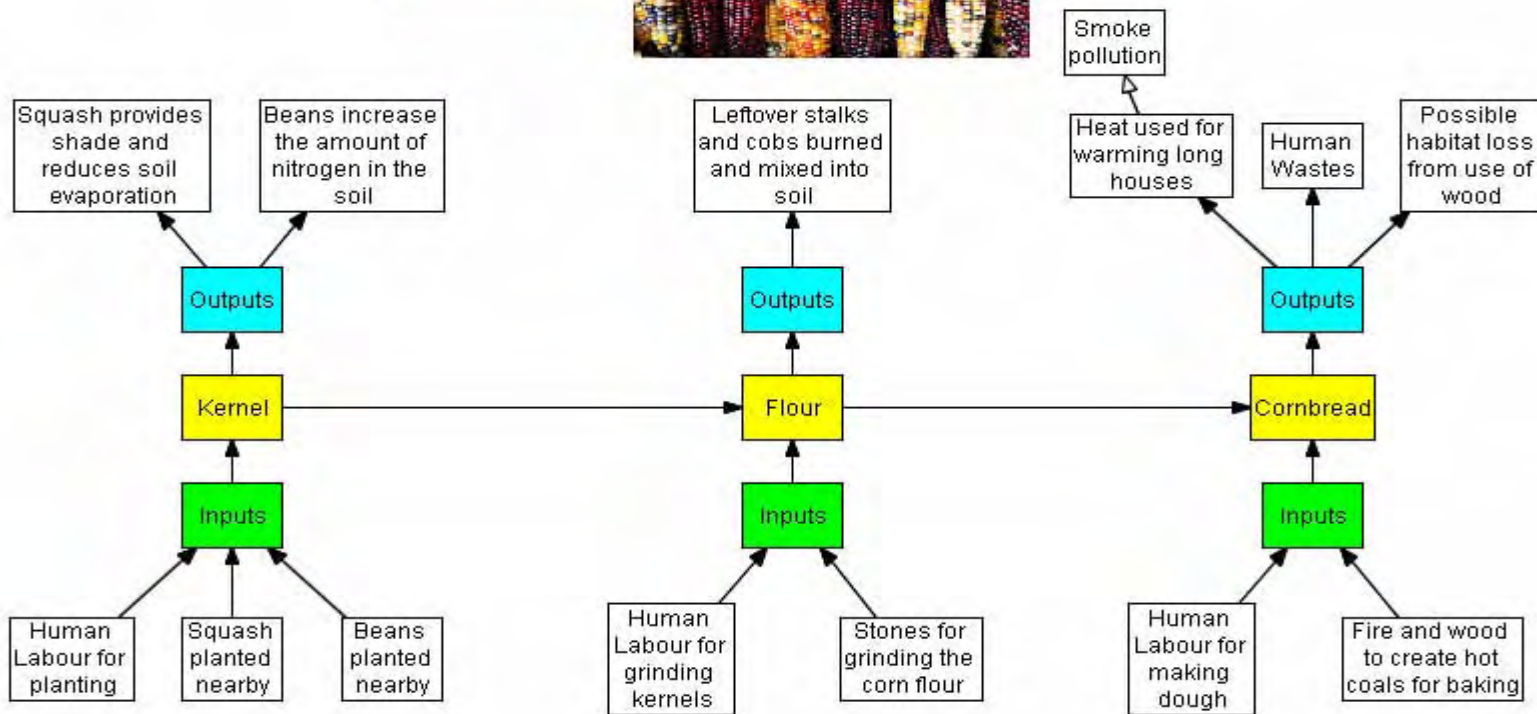
Similarities

Differences





## Aboriginal Production of Corn



## Resources and References

Museum of Civilization. Virtual Museum of New France. Accessed from  
<<http://www.civilization.ca/vmnf/vmnfe.asp>>

Ontario Ministry of Education (2004). *The Ontario Curriculum: History and Geography Grades 7 and 8*. Toronto: Ministry of Education, 2004.

Ontario Ministry of Education. *The Ontario Curriculum Grades 1 – 8: Language*. Toronto: Ministry of Education, 2007.

Ontario Ministry of Education. *Think Literacy: Cross-Curricular Approaches Grades 7 – 12*. Toronto: Ministry of Education, 2003.

Ste. Marie Among the Hurons. The Life of the Wendat. Accessed from  
<<http://www.saintemarieamongthehurons.on.ca/english/historicalinfo.html>>

# LANGUAGE

## Description

The Language component of this project gives students the opportunity to learn and practice skills in authentic ways as they consider the effect that texts have on them, create media texts, study and write newspaper articles and practice critical literacy.

There are four Learning Activities in the Language component of this cross-curricular project. The Learning Activities described here complement Activities done in other curriculum areas. Depending on teacher preference and the degree of cross-curricular coordination, these Activities can be done independently of the other curriculum areas or they can be combined with them. The Activities can also be used independently if the cross-curricular grade-wide environment project is not attempted.

## Activities

There are four Activities in the Language Component.

Activity I – *Are We Brainwashed?*

Activity II – *Spreading the Word*: the power and mechanics of media texts

Activity III – Newspaper Article Analysis and Writing

Activity IV – Critical Literacy

# LEARNING OUTCOMES

## CATHOLIC GRADUATE EXPECTATIONS

During this series of Learning Activities the student will develop as...

### CGE 3 - AN EFFECTIVE COMMUNICATOR WHO:

- a. Listens actively and critically to understand and learn in light of gospel values.
- b. Reads, understands and uses written materials effectively.
- c. Presents information and ideas clearly and honestly and with sensitivity to others.
- d. Writes and speaks fluently one or both of Canada's official languages.
- e. Uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology and information systems to enhance the quality of life.

### CGE 7 – A RESPONSIBLE CITIZEN WHO:

- i. respects the environment and uses resources wisely
- j. contributes to the common good

## LANGUAGE

### Overall Expectations

Almost all of the Grade 7 Language expectations are addressed in one way or another in the series of Activities that are described below.

# LEARNING ASSESSMENT

## Summative Assessment of Learning

The **Cross-Curricular Culminating Performance Task** (see p.4) can be used to assess the learning outcomes identified above.

## Formative and Summative Assessment of Learning

The following products, created by the students in the Learning Activities described below, can also be used to assess the learning outcomes. These are identified in each Activity by the *Assessment Opportunity* icon.

### Activity I – *Are We Brainwashed?*

#### Preliminary Reflection

- Individual and small group reflection notes
- reflection on influential texts

#### Follow-Up Reflection

- individual Reflection and Note-Taking
- Large Group Sharing Organizer
- *Are We Manipulated* paragraph

### Activity II – *Spreading the Word*: the power and mechanics of media texts

metacognition large group discussion

*Media Text Analysis* small group work

individual *Media Text Analysis*

Creating a Media Text

### Activity III – Newspaper Article Analysis and Writing

*Probable Passage* prediction

Text Feature/Convention “Exit Card”

small group text analysis presentations

Writing Process

Newspaper Article

### Activity IV – Critical Literacy

Guided Practice, Critical Analysis of Media Text notes

Shared Practice

*Practicing Critical Literacy* assignment

## LEARNING ACTIVITIES

The *Learning Activities* for the Language Component are organized into four parts.

*Are We Brainwashed?*

*Spreading the Word:* the power and mechanics of media texts

Newspaper Article Analysis and Writing

Critical Literacy

**TEACHING MATERIALS** used to support the Learning Activities are referred to in the Activity descriptions and are provided following the description of all of the Learning Activities.

A list of *Resources and References* used to develop and support these Learning Activities can be found after the **TEACHING MATERIALS**.

**ACTIVITY I**  
**Are we brainwashed?**  
*reflecting on the impact of texts on our learning*

**ACTIVITY SUMMARY**

At the beginning and at the end of the cross-curricular environment project, the teacher will give the students the opportunity to reflect on their learning of content related to the environment and on the texts that have contributed to their learning. The purpose is to make them aware of and to help them take control of their thinking and learning (metacognition). This Activity will also help students build their understanding of texts and their understanding of the environment.

**TEACHING OPPORTUNITIES**

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• metacognition</li><li>• text forms</li><li>• media texts</li></ul>	<ul style="list-style-type: none"><li>• metacognition (analysis of the impact of texts on thinking and learning)</li><li>• critical literacy (analysis of impact of text on self, detecting bias)</li><li>• developing strong arguments (analysis then forming conclusions)</li><li>• note-taking (listening in order to understand, writing for an intended purpose)</li><li>• presenting to large groups (speaking to communicate)</li></ul>

**ACTIVITY DESCRIPTION**

There are two parts to this Activity; Preliminary and Follow-Up Reflections.

In the Preliminary Reflection, the students will participate in a *Four Corners* exercise that will help them think about their position on the state of the environment and the reasons why they hold that position. They will jot down their ideas about the environment and their learning individually and then they will share their ideas in small groups, adding to their notes as they encounter new ideas.

After sharing their ideas in small groups, the students will hear the thinking of the groups that hold different positions on the state of the environment. Each student will jot down notes on each of these positions in another note.

The Follow-Up reflection is done after all of the environmental activities are complete in other curriculum areas. During this reflection, the students will consider the degree to which their thinking about the environment is influenced by the texts they encounter. A similar *Four Corners* exercise will be used to help the students generate their thinking on this issue.

## Preliminary Reflection

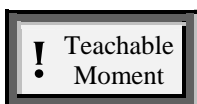
There are two components in this exercise. First, the students will consider their position on the state of the environment. Then, they will consider what texts have contributed to their position. A *Four Corners* exercise is used to encourage and focus their thinking.

### *Four Corners Activity*

A **Four Corners** exercise (see *Think Literacy Cross-Curricular Approaches* p. 182 for details about this exercise) asks the students to identify themselves with one of four responses to a general question or statement.

First, the teacher would give the students the question or statement to be considered. For example: *How bad is the threat to the environment that the Earth is facing?*

Together with the students, the teacher should create a title for the notes the students will take during this exercise. The title could be something like: *The State of the Environment – How Bad?*



NOTE-TAKING : importance of having a good title

Four statements representing the continuum of possible responses to the question must be developed. For example:

Much Ado about Nothing  
Getting Worse  
Approaching Disaster  
It's Too Late.

These statements are written on large pieces of paper and are posted prominently in four corners of the room. The teacher gives the students the question to be considered, points out the possible responses and explains them if necessary.



The students could help the teacher come up with these possible responses. The students could also be given the task of finding graphics to represent each position. The graphics could even be used in place of text.

### Individual Reflection and Note-Taking – choosing a corner

For five to ten minutes the students are asked to consider their response to the question and to write down which of the four responses most reflects their position. They should also write down arguments, ideas or examples to support their response in point-form or complete sentences. They should also be told to leave space so that they can add to their notes.



The students are also asked to think about why they hold that position; about what texts, oral, written or media, have contributed to their thinking. One or more of the following questions could be used to focus the students' thoughts:

Why do you feel the way you do about the state of the environment?

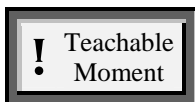
What sources of information, have contributed to your views on the state of the environment?

What texts have influenced your thinking? Do some texts have more influence? Why?

These thoughts could be written down on the back of the page with their notes on their thoughts about the threat to the environment, or they could be written on a separate sheet.

Together with the students, the teacher should come up with a title for this note. The title could be something like: *Influential Texts – What affects my thinking?*

Again, the students would be told to leave space so that they can add to their notes when they share their ideas with their peers.



TEXT FORMS (oral, reading, media...) and their different impacts on us  
METACOGNITION: What makes us believe some texts more than others?

### Small Group Sharing – going to the Four Corners

After considering their position individually, the students move to the corner of the room with the statement that most closely conforms to their position.

If there are many people at one statement, the teacher should break them into smaller groups.

At their positions, the students will explain their reasoning for holding that position to others in their group. The students are asked to add their peers' ideas to their notes.

They are also asked to share their thoughts on how they have come to the positions they hold, and what texts have been involved. This should be added to the notes on influential texts.



The notes that the students have taken up to this point could be assessed on the following:

**K&U:** individual text forms (oral, media, written etc.)

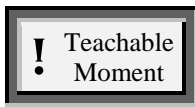
**TH:** quality of arguments

**AP:** note-taking skills (neatness, clear headings etc.)

### Large Group Sharing

After the small groups have shared the arguments on their positions and their ideas about what texts have contributed to their thinking on the issue, each group will give a brief synopsis of the arguments to support the position they have chosen.

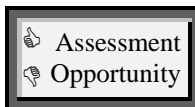
The rest of the students would be given the task of recording their peer's ideas. The students could be introduced to a simple *Four Corners* or multiple position note-taking graphic organizer like the example in **TEACHING MATERIALS**.



**Taking point-form notes** and **speaking to large groups** are skills that could be taught before or during this exercise.



This could be easily developed into an in-class or online debate.



The Four Corner or multiple positions note could be used as evidence to assess the following:

**CM:** use of appropriate vocabulary, spelling

**AP:** note-taking



The students could also be asked to reflect on the texts (books, posters, TV and newspaper ads etc.) that have had a effect on their thinking.

**TH:** ability to identify the impact of texts on their thinking

**AP:** ability to give examples to support their thinking

## Follow-Up Reflection

After learning activities related to the state of the environment have been completed, the teacher should use another *Four Corner* exercise to have the students consider the impact of texts on their thinking.

The question to be considered would be something like, *To what extent are my opinions influenced by the texts that I come into contact with?*

The Four Corner positions could be:

- I am brainwashed.
- I am manipulated.
- I am influenced.
- I am a free thinker.

They must then argue why this is the case using examples related to their position on the state of the environment. For example, they must show how they are or are not brainwashed by describing the environment-related texts that have influenced them.

The *Think, Pair, Share* stages of this exercise would be the same as those followed in the **Preliminary Reflection** (see above) so they are described much more briefly here.

### *Individual Reflection and Note-Taking*

The students would be given time to consider their position and jot down arguments, examples and logic to support the position they choose. The examples should include references to their position on the degree to which they believe the environment is threatened. Again, they would be asked to leave space so that they can add to their notes.

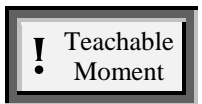


This would be an excellent opportunity to use the students' notes as a piece of formative assessment. Their individual reflections could be taken in to assess their skill and understanding in the following areas:

**K&U:** understanding of a variety of text forms

**TH:** ability to argue logically

**AP:** ability to use examples to support their positions



The text forms and skills identified above could be reviewed depending on the results of the formative assessment described.

### Small Group Sharing

The students would move to the corner in the room with the statement corresponding to their position and would share their ideas with their peers, adding to their notes when appropriate.

### Large Group Sharing

Group representatives are asked to bring their group's ideas to the whole class and all students are asked to take notes with an appropriate organizer (see the example in **TEACHING MATERIALS**).



The organizer could be assessed for evidence of the following:

**K&U:** general understanding of text forms

**AP:** ability to apply that understanding by providing examples related to their views on the environment



The students could be asked to write a one paragraph statement about the degree to which their views on the state of the environment are manipulated by the types of texts they experience. This would provide evidence of the following:

**TH:** ability to develop logical arguments

**CM:** organization of written text; use of conventions

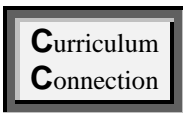
## ACTIVITY II

### Spreading the Word

*the power and conventions of media texts*

#### ACTIVITY SUMMARY

By considering the **audience and purpose**, **form** and **conventions** of a media piece, the students will think about how to communicate a message related to the environment or to communicate information about the school's environmental initiatives. They will analyze media texts with environmental themes and think about how those texts affect them, and then they will create their own media text.



The media text creation part of this Activity could be easily integrated with the *Reducing Lunch Waste* Activity done in **Science and Technology** (see p. 38).

#### TEACHING OPPORTUNITIES

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts and Content	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• audience and purpose</li><li>• form</li><li>• conventions</li><li>• metacognition</li></ul>	<ul style="list-style-type: none"><li>• metacognition</li><li>• critical analysis</li><li>• oral interaction</li><li>• producing media texts</li><li>• note-taking</li><li>• Internet research</li><li>• Writing Process (adapted to media)</li></ul>

#### ACTIVITY DESCRIPTION

This Activity follows the *gradual release* model of instruction. It starts with a teacher-led exercise during which the teacher guides the thinking about the aspects of media texts and metacognition. It is followed by a small-group assignment in which the students work together on the same kind of task. The students will then analyze a media text on their own. Finally, each student will create their own media text. In keeping with the theme of this resource, each text should be related to the environment in some way.

## Introduction

At the start of this Activity, the teacher should describe what they will be doing. The students should be told that they will be doing three things during this Activity:

- analyzing media texts about the environment
- thinking about how and why different kinds of texts influence their thinking
- creating their own media text.



This would be a good opportunity to brainstorm a **list of forms of media texts** (newspaper articles, pamphlets, web sites, radio and TV ads etc.) to be posted in the class and written in the students' notes for reference during this and other Activities.

Give the students the "Creating a Media Text assignment" (see **TEACHING MATERIALS**).

THE STUDENTS SHOULD BE TOLD TO THINK ABOUT THE MEDIA TEXT THAT THEY WILL BE CREATING AS THEY ANALYZE DIFFERENT TEXTS.

## Teacher-led discussion

As a large group, with the teacher leading the discussion, the students will consider the **audience and purpose, form and conventions** of a media text (each of these is covered in depth in the *Ontario Curriculum Grades 1-8 Language* document). At the same time, the class will think about the audience, form, and conventions and techniques of the texts they will be creating.

Choose a common, environment-related, media text (see the list of types in **TEACHING MATERIALS**). Show it to the students. Ask the students whether or not they think it is a good text. Try to get them to think about why it is a good or bad text. Use the following questions to get them to think about, to analyze, what makes a text powerful. At the same time, they should be thinking about the text they will be creating.

For what **audience** has the text been created? How do you know?

Who is the **audience** for my text? What kinds of things should I know about my audience?

Why was this particular **form** used? What are its characteristics (size, appeal, cost, complexity...)?

What are the different **forms** that I can use? What are the characteristics of these forms? What forms would be most effective for the task at hand?

What are the **conventions** or components (layout/organization, headings/lead-ins, quotes, colour, volume, catchy visuals/sounds, graphics, lettering...) of the text?

What **conventions** are used in other types of text that I can use to communicate my message effectively?

The students should create a note with their answers to these questions.



This could be used as an opportunity to teach the students **how to create useful notes**. Things like concise and appropriate titles, using point-form, the importance of neatness, the importance of leaving space etc. could be highlighted.

## Metacognition

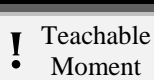
Throughout this large group discussion, the students could be asked to reflect on their own mental, emotional and physical response to media texts. They should be made aware of the fact that this is metacognition and that by considering their response to texts they can use metacognition to inform their creation and use of texts. Question prompts to help them do this are:

How does this media piece affect you?

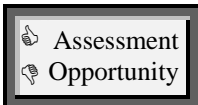
Does this media piece trigger any thinking, emotions or physical responses?

Why does this media piece work/not work for you?

What aspects of the media piece have an impact on you? Why?



**CRITICAL LITERACY:** While discussing the impact that texts have on them, the students could be made aware of how they are being manipulated.



During this discussion, the teacher should be attentive to the students' grasp of the following:

**K&U:** of metacognition

**TH:** critical attention to the ways texts influence them

**CM:** ability to communicate orally

**AP:** ability to provide examples to support what they are saying

## Small group work

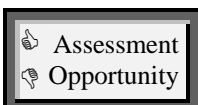
Give the students the “Media Text Analysis” assignment (see **TEACHING MATERIALS**), and tell them that they will eventually have to answer the questions on their own.

In small groups, have the students look at another media text related to the environment and answer the assignment questions. A common text or different types of texts (web site, poster, radio or TV advertisement, pamphlet...) for different groups could be used.



The students could be given the task of finding different kinds of texts.

After the groups have had the opportunity to analyze their texts and their own thinking as influenced by the text, the teacher should take up any questions that the students have as a large group. The teacher has to decide whether or not he will illicit questions or let the students suffer if they choose not to ask questions.



Mingling with the small groups and taking questions with the whole class should give the teacher the opportunity to assess and then address the following:

**K&U:** of audience and purpose, form and conventions

## Individual assignment

Each student will analyze an environment-themed media text that is provided by the teacher using the “Media Text Analysis” assignment that guided the small group work above. The same text could be analyzed by all students, or a small number of texts, perhaps four or five, could be used. Providing a variety of texts would be an excellent opportunity to differentiate assessment.



It might be an idea to show the class a small number of texts and let each student choose the text that they will analyze. This would give the students the opportunity to see a variety of forms (audio, visual, web-based...) which would force them to informally test their understanding of concepts using different media before choosing the one text that they want to analyze.

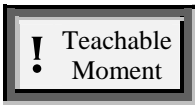


This task would generate evidence that could be used for summative assessment of the following areas of skill and understanding:

**K&U:** understanding of purpose and audience, form and conventions

**TH:** ability to analyze their own thinking

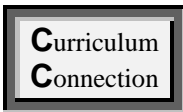
**CM:** ability to communicate using proper conventions



*After* the students’ analyzes have been assessed, they could share their work to help each student deepen their understanding by seeing a variety of responses to the same questions.

## Creating a Media Text

This assignment, which was given to the students earlier in this Activity, can be found in **TEACHING MATERIALS**.



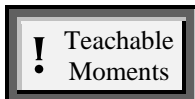
This text is to be used to support the Reducing Lunch Waste project developed and carried out in a variety of **Science and Technology** activities (see p. 38).

Each student will create a media text to publicize the class, grade or school’s environmental initiative. This can be done in small groups if the teacher thinks it would be appropriate. Some of the forms that might be used are morning announcements, posters to be displayed around the school, short presentations to other classes, a web page on the school web site, a school newspaper advertisement etc.

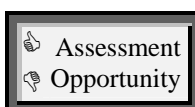


Students could be assigned to ***Critical Friend* groups**. Members of these groups would help each other with suggestions about their work. This would provide an opportunity to teach the students effective oral critiquing skills. It would also give them the opportunity to think about how to communicate effectively to learn, an exercise in metacognition.

Over a period of three or four days, have the students work through the adapted Writing Process that is described in the student assignment. This could also be done in segments of classes while the class works on other projects instead of having the students work through the creation of their media texts continuously.



At each stage of the “writing” (text creation) process (brainstorming, peer editing etc.) the teacher can suggest strategies, or have the students suggest the strategies they use do each task . It would be most powerful to do this in response to student questions and requests though these requests do not always come spontaneously.



The following skills can be easily evaluated either as the students work or by considering the final products created:

**CM:** ability to use media forms and conventions to communicate; ability to organize and use conventions

**AP:** ability to follow and carry out the “Writing” Process



## ACTIVITY III

### Reading and Writing Newspaper Articles

#### ACTIVITY SUMMARY

The students will learn the general text structure (see *Think Literacy Cross-curricular Approaches Grades 7 – 12* pp. 80 – 82 for details) of newspaper articles, then use this knowledge to “pre-read” articles to help them prepare to understand what they will encounter when they read thoroughly. They will then use this to help them write newspaper-style informational, non-fiction pieces.

#### TEACHING OPPORTUNITIES

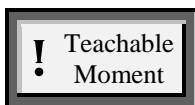
The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• text structure</li><li>• text features</li><li>• metacognition</li></ul>	<ul style="list-style-type: none"><li>• reading comprehension skills (text structure, activating prior knowledge)</li><li>• Internet research skills</li><li>• working with peers</li><li>• critical analysis of the effectiveness of text features</li><li>• organizing writing</li><li>• using writing conventions to communicate effectively</li><li>• using the Writing Process</li></ul>

#### ACTIVITY DESCRIPTION

##### Preparation

Choose several environment-themed articles of various lengths and reading levels from the Internet, magazines and newspapers for the students to read. Commercial language programs (produced by companies like Nelson, Pearson, Scholastic etc.) often create or provide examples of levelled readings of this sort. The students can also be given the task of finding articles in newspapers and magazines or in online news services (CBC, CNN, BBC, Yahoo etc.).



This can be used as an opportunity to teach and/or practice Internet research skills.

### Teacher-Led Instruction: *Pre-reading - preparing to understand*

Help the students read newspaper articles by “activating prior knowledge” (see Kylene Beers’ *When Kids Can’t Read*, pp. 73-74 for a thorough explanation of this pre-reading strategy) and predicting article content.

Give each student copies of the same article and do the following *Probable Passage* type exercise which helps the students predict what they will encounter in a newspaper article (see Kylene Beers’ pp. 87-94 for an explanation of this pre-reading strategy).

Have the students consider the following parts of the article:

- the title
- sub-titles
- graphics (pictures, graphs, charts etc.)
- highlighted (bold, italics, underlined) words and phrases
- the first and last paragraph.

Then, have the students put the articles away and write a short summary prediction of what they think the article will be about. Have them do this on their own, then share their predictions in small groups. This could be discussed as a large, whole class, group as well.

After they have shared their predictions, have them take out the articles, read them, and consider how close their predictions came to what the article was really about. Again, this could be discussed as a whole class.

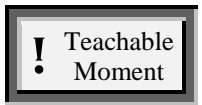


Throughout this Activity, gauge the students’ comfort with this skill to determine if additional explanation or practice is necessary.

**AP:** ability to use reading comprehension strategies

### *Metacognition*

Ask the students to reflect and comment on how the predicting exercise affected their ability to read and understand the article.



This is a good opportunity to point out how the pre-reading affects their thinking. By looking at the various aspects of the article before reading, the students are bringing information, images and ideas into their short term memory which prepares them to understand what they are going to read and to add to or “fill out” what they already know.



This exercise could be done again with the students reading different articles, or reading articles that are shared in small groups. The students should be given time to do the exercise on their own and then discuss it in their groups.



The black line master entitled *Preliminary Walk Through* (see **TEACHING MATERIALS**) is an excellent tool for helping students prepare for understanding by using text structure to predict what an article will be about.



The black line master entitled *Identifying Details - the 5 Ws* (see **TEACHING MATERIALS**) could be used to help students identify the important content of the articles they read.

Every time a reading is done in class, whether it be from the newspaper, a class text or any other source, the students could be given the opportunity to do this exercise first in order to build their awareness of how they learn.

### **Teacher-Led Instruction: *News Article Text Structure***

Using an exemplary environment-related article as a guide, tell/remind the students about the general structure of newspaper articles.

Have the students read the article first and then read the article with them, pointing out some or all of the following structural features/conventions of newspapers and newspaper articles. It would be helpful to record these conventions and techniques in the students' notes, and/or display them on chart paper, an overhead or a slide so that students can refer to them while they do future exercises.

- **titles** are meant to draw the readers' attention
- news articles cover the *Five Ws* (who, what, when...)
- **most important information is summarized quickly in the first paragraph(s)**
- **sub-titles** highlight important information
- **detail** is given in the middle paragraphs
- the article is **summarized in the final paragraph(s)**
- **graphics** (pictures, charts, diagrams etc.) are used to add detail and attract attention
- **highlighted text** (often quotes taken from the article) identify key pieces of information or the main issues raised by the article
- **paragraphs are short** – one to five sentences long



A quick "Exit Card" activity asking the students to identify five or six text features of a short newspaper article would be a good way to determine the degree of understanding that each of the students has.

**K&U:** newspaper article conventions

**AP:** ability to identify examples of the conventions

## Small Group Text Analysis

Divide the class into small groups, preferably of mixed ability. Give each group a news article.



**Differentiated Instruction:** If possible, have the students bring their own articles or find them online or in newspapers and magazines provided for them.

Have each of the groups do the following tasks:

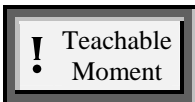
1. Identify each of the text structure features of news articles (titles, conclusion summaries, highlighted text etc.). This can be done by marking the text itself.
2. Choose any three of these conventions and explain why they are useful to the reader.
3. State whether you think it is a good news article. Explain your reasoning.



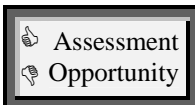
**Cooperative Learning Strategy:** Each group member could be assigned a task (Leader, Recorder, Presenter, Devil's Advocate etc.) to ensure that everyone actively participates.

## Presentations

Have each group present their text analysis to the whole class.



This is another opportunity to highlight **metacognition** by encouraging the students to think about how the text features help them understand what is being communicated in the article.



The students' small group work and presentations provide a good opportunity to pay attention to, comment on, and perhaps formatively assess the students' grasp of the following:

**K&U:** different features of news article text structure

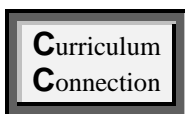
**TH:** ability to analyze the effectiveness of news article features

**CM:** oral communication skills in small groups and presenting to class

## Individual Assignment: *News Article Writing*

See the "Writing a Newspaper Article" assignment in **TEACHING MATERIALS** for details.

Choosing from the titles provided (see **TEACHING MATERIALS**), or other titles that the teacher develops, the students will use what they have learned about text features etc. to write a newspaper article. The articles do not have to be factual but the students might be encouraged to do research to help them come up with ideas for the content of their articles.



Encourage the students to use information they have come across in **Geography** (see environment issues, p. 13) and **Science and Technology** as a source of ideas for the content of their article.

**NOTE:** THE COMMUNICATION SECTION OF THE RUBRIC USED TO ASSESS THIS ASSIGNMENT IS SIMILAR TO THE RUBRIC USED ON THE GRADE 10 OSSLT.

### *Writing Process*

In class, have the students follow the Writing Process to guide their writing. The stages of one example/model of the process are described briefly in the assignment and in detail below, but teachers are encouraged to use their own stages if the students are more familiar with them.



While the students are working through the writing process, the teacher can circulate around the room taking notes on the following:

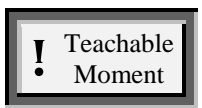
**TH:** ability to use strategies to brainstorm ideas

**AP:** ability to follow the writing process; ability to work with peers

### Brainstorming Content

The students should brainstorm or collect details for their article. They could use the *Brainstorming the 5 Ws* graphic organizer (see **TEACHING MATERIALS**) as a guide or they can use their own model.

Students should be encouraged to work in pairs or groups of three “writing partners” to help them brainstorm.



After this has been done, the teacher might ask the students to share how they came up with ideas for their articles. The teacher can point out that this is another example of **metacognition** because they are being asked to think about their thinking – how they come up with ideas.

### Planning/Writing an Outline

After the important content has been identified, the students should organize their information into a rough outline. This could include writing the introductory paragraph(s) and then listing the content of subsequent paragraphs.

Again, students should consult with their writing partners about their outlines. They should discuss the order and structure and whether or not they have included enough or too much detail.



The students could be shown a variety of graphic organizers they can use to help them write outlines. Many examples of organizers can be found on the web.

### Writing a rough copy

After the outline is complete, the students should write the text of their articles. While they are writing, they could make notes about text features like titles, graphics, highlighted text, key quotes etc. that they might use.

### Editing

Students should have their work read by their writing partners, and perhaps others, who look for grammatical errors and make structural suggestions.

The editing process could be done after the writing or after the text features have been added (see below).

### Adding Text Features

After the text has been edited, text features should be added. Students should refer to their notes or to class posters to ensure that they use the appropriate features.

Students should encourage their peers to offer suggestions during and after this process.

### Final Product

After completing each stage of the process and having been given the opportunity to confer with their peers, each student should create a final copy of their article.



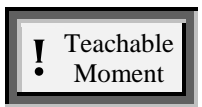
The final copy of the article would be assessed in the following areas:

**CM:** topic development and use of writing conventions

**AP:** ability to follow the writing process

### *Sharing*

After the articles have been finished, the students should be given the opportunity to see what their peers have created so they can get ideas for future work.



The teacher can also make one positive comment about each piece while the students take notes.

**ACTIVITY IV**  
**Critical Literacy**  
*thinking about what is behind the text*

## ACTIVITY SUMMARY

Using a *Gradual Release* structure, this Activity introduces the students to five “Critical Literacy Questions” that will help them consider the value of the texts that they read.

## TEACHING OPPORTUNITIES

The following concepts and skills can be taught or reviewed before, during and/or after this Activity:

Concepts	Skills (Thinking, Communication, Application)
<ul style="list-style-type: none"><li>• allegory</li><li>• bias</li><li>• metacognition</li><li>• symbolism</li><li>• text forms</li></ul>	<ul style="list-style-type: none"><li>• critical analysis</li><li>• metacognition</li><li>• purposeful oral communication</li><li>• writing point-from notes</li><li>• Internet research</li></ul>

## ACTIVITY DESCRIPTION

### Preparation

Place the poster with the *Critical Literacy Questions* (see **TEACHING MATERIALS**) somewhere in the class. The students could also keep a list of the questions in their notes.

The purpose of the following teaching/learning exercises is to help the students build their understanding of critical literacy in general and the questions specifically.



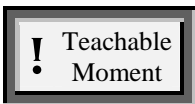
It might be powerful to give the students the *Practicing Critical Literacy* summative assessment assignment (see **TEACHING MATERIALS**) before doing these exercises so they have a clear idea of what they must learn.

## Teacher Modelling (whole class)

The example text used for the Teacher Modelling is *The Giving Tree* by Shel Silverstein (use of this text is described in *Critical Literacy*, pp. 41 - 45). This text is rich in both positive and negative messages. If you decide to use another text, try to use one that highlights the need for critical literacy.



It would be interesting to read the book itself, then look at different versions available online. There are a number of versions available on YouTube.



When looking at different versions, students could discuss how one medium changes, adds to or detracts from the messages communicated by other media.

Another text that might be used is Jon Scieszka's *The True Story of the 3 Little Pigs as told by A. Wolf*, although it is not as easily connected to the environment.

The teacher shows/reads the *The Giving Tree* by Shel Silverstein using a Think Aloud style (see Beers, pp. 119 - 126) to demonstrate how to answer each of the *Critical Literacy Questions*.

*Who is in the text/picture/situation? Who is missing?*

Students will often assume that the tree represents the boy's mother who is completely devoted to her son. When thinking about who is missing, students realize that the mother stands alone, with no husband or companions or other children.

*Whose voices are represented? Whose voices are marginalized or discounted?*

The mother's voice is represented and the reader is positioned by the author to feel warmth and sadness for the sacrifice of the mother who receives no gratitude. The boy becomes ungrateful and not very admirable, so his voice is marginalized.

*What are the intentions of the author? What does the author want the reader to think?*

The teacher can also ask, What is the subtext of this story? Perhaps the author wanted us to celebrate the selflessness of mothers, or perhaps he wanted us to consider the inequity between children and parents.

*What would an alternative text/picture/situation say?*

Try to think of a story that has a different theme or characters. Perhaps in an alternate story, the child is grateful for all that he is given. Perhaps an alternative is the child helping the parent (e.g., chores) rather than always taking. Perhaps the boy and mother are surrounded by friends and family and aren't so dependent on each other.

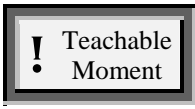
*How can the reader use this information to promote equality?*

Some texts have themes or messages that make a point or promote particular respectful behaviours. Students can discuss the inequity in many relationships.





After considering the literal meaning of the text, ask the students to suggest what the tree and boy might represent. Have them consider that the tree might represent Mother Nature or the environment and the boy would be humans.

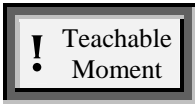


When considering the alternative meaning of the text, introduce the concepts of **symbolism** and **allegory**. Give them other examples, and have the students try to think of their own. Refer to other texts studied with the class.

### Guided Practice, Critical Literacy of Media (whole class)

The teacher presents a media text (e.g., poster, advertisement, commercial, news report, article, pamphlet, website, magazine, editorial cartoon, editorial, letters to the editor, clips from movies/shows/etc.) on an environmental topic.

The teacher facilitates a discussion using the *Critical Literacy Questions*. Encourage the students to lead the discussion around each of the questions. The students should take notes on the answers to the questions.



This is the perfect opportunity to introduce the concept of **bias**. Ask the students to consider how the text is biased – who the text favours and who is not portrayed in a positive way.



It would be informative to pick up the students' notes on the answers to the questions to assess their understanding. Before they turn in their sheets, give them time on their own to highlight the best answers to each question.

**K&U:** critical literacy in general

**AP:** ability to recognize appropriate examples of good critical responses

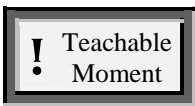
### Shared Practice (independent, in small groups & whole class)

Assign a media text with an environmental theme to small groups of students. Each group should have a different text.



**Differentiated Instruction:** The groups could be given the task of finding their own texts or the teacher could provide texts at a variety of levels of difficulty so that each student analyzes a text at their ability level.

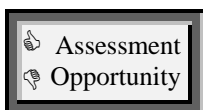
Have each of the students read the text on their own then answer the *Critical Thinking Questions* in jot (point-form) notes. At the same time, they should be thinking about how the text is biased.



This would be a good opportunity to talk about how to write good **point-form notes**. Give the students time to start doing their notes, then have them pause and share some of their strategies.

After the students have considered the *Critical Thinking Questions* on their own, have them share their ideas with other members of their group. They should add to their notes.

As a large group, have the students share interesting things they discovered in their small groups. Use the critical thinking questions as prompts if necessary. Focus on how each of the groups' texts are biased. You might start getting them to think about specific groups that are marginalized.



When students share their ideas with each other and present their findings to the class, it is a good opportunity to assess the following skill:

**CM:** ability to orally communicate to support each others' learning

**Independent Practice: Practicing Critical Literacy** (independent followed by small group and whole class sharing)

See the "Practicing Critical Literacy" assignment in **TEACHING MATERIALS**.

Find four or five media texts and assign one of the texts to each student.



This would be an excellent opportunity to have the students analyze web media with environmental themes or topics. News site (CNN, CBC, BBC, Fox News) articles, YouTube videos and web sites etc. are abundant and the students would benefit from being aware of how they are not always "objective".



**Differentiated Assessment:** By providing texts on a variety of subjects, the students can be given the opportunity to choose pieces that are of interest to them. To do this effectively, the teacher must be familiar with common interests in the class.

**Note:** Go over the grading rubric during the explanation of the task. Talk about what achievement at Level 3, and perhaps 2 and 4, would look like.

The students will then do the assignment.

As this is a summative assessment, the students must do this assignment in class.



The paragraph and point-form notes could be assessed in the following areas:

**K&U:** understanding of bias with accurate examples

**TH:** ability to recognize omissions, instances of bias and prejudice etc.

**CM:** clarity of expression (organization and use of conventions) in paragraph form

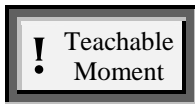
**AP:** ability to take point-form notes

## Sharing

After the assignment has been completed, the students can share their work to see how others have done the critical analysis and to get ideas about how to improve their own work.

Have the students share their work in groups of four or five based on the media piece that they analyzed. They could be grouped so that they have the same or different media texts.

Summaries of the small group findings can then be shared with the whole class.



**Metacognition & Oral Communication:** After each small group has presented, the teacher might ask the students to reflect on how the ideas presented affected their thinking or learning. They might be asked to consider how factors like volume, voice speed, time of day, fatigue, importance of the task, gender of the presenter etc. contribute to how much they “take in”.

# **LANGUAGE**

## **Teaching Materials**

**Position 1**

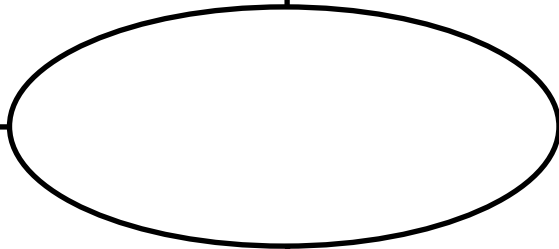
**Position 2**

*This is an example of a  
simple note-taking graphic  
organizer that could be  
used for a Four Corners  
activity.*

**Question or Topic**

**Position 4**

**Position 3**



## Creating a Media Text

You are going to create a media text to publicize your school or class's environment initiative.

Choose a medium to which you have access. Some examples are as follows:

oral presentations to classes  
P.A. announcements

posters  
school newspaper ads

video  
school web page

Think about who you are trying to influence (your **audience**), and what you want to achieve (your **purpose**). At the same time, think about the nature of the medium (**form**) and the elements like colour, volume, sound effects, pictures, font etc. (**conventions**) that you can use in the medium to communicate your message.

Use the following “writing” process steps to help you develop your media text:

**BRAINSTORM** – List content, style and convention ideas.

**PLAN** your text – Write a script outline, storyboard a video piece, or do a rough mock-up of a web site or poster etc.

**SHARE IDEAS** – Have others critique your plan and discuss ways to make it better.

Create a **ROUGH “DRAFT”**.

**PEER EDIT** – Have others help you check for errors.

Create the **FINAL PRODUCT**.

## Assessment

The final draft of your media text will be assessed on the following criteria:

### Communication

### Level 3

appropriate use of style, voice, images etc. to communicate to a specific audience	<ul style="list-style-type: none"><li>• message is clear with few distractions</li><li>• a variety of conventions are used and they serve a purpose</li></ul>
ability to express ideas using proper organization and conventions	<ul style="list-style-type: none"><li>• message is communicated clearly, with a good grasp of a variety of devices and conventions</li><li>• spelling and grammar is mostly error-free</li></ul>

### Application

### Level 3

ability to follow and carry out the “writing” process	<ul style="list-style-type: none"><li>• each step is completed</li><li>• the strategies used are effective (brainstorming methods generate ideas, plans allow for self and peer criticism, conversations are respectful &amp; productive...)</li></ul>
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# Media Texts

documentaries

e-mail

films

flyers

handbills (ads for parties and special events like Christmas sales...)

logos (Nike swoosh, the Senators' gladiator, McDonald's arches, ... )

magazine advertising

Internet "pop-ups"

music

posters

presentations

radio ads

religious symbols like ✠ and †

spam

television commercials

TV shows

traffic symbols

web pages



## Media Text Analysis

Choose one of the media texts provided by the teacher then analyze it by completing the following four tasks. Unless otherwise stated, you must answer these questions in complete sentences.

1. Write a summary of the content of the media text in one to three sentences.
2. Analyze the piece noting the **audience and purpose, form** and **conventions** of the text. This can be done in point-form notes. Explain your analysis where appropriate. For example, state why you believe it addresses the audience that you say it does. Give examples to support what you say. This can be done in point-form.
3. Describe the effect the piece has on your emotions, your thinking and your knowledge.
4. In a 100 – 200 word paragraph, critique the piece, arguing whether or not you think it is a good text.

### Assessment

Your analysis will be graded using the following rubric. Read it carefully to understand exactly what you should be showing the teacher with your answers.

Knowledge and Understanding	Level 3
understanding of <b>audience and purpose, form</b> and <b>conventions</b> (depth, accuracy, variety)	<ul style="list-style-type: none"> <li>• solid understanding with supporting details</li> <li>• accurate and correct: some minor errors</li> <li>• sometimes creative</li> </ul>
Thinking	Level 3
ability to identify and account for the mental & cognitive impact of texts	<ul style="list-style-type: none"> <li>• considerable evidence of thought and ability to relate this to personal experience</li> </ul>
Communication	Level 3
ability to express ideas using proper organization and conventions in paragraph form	<ul style="list-style-type: none"> <li>• communicates clearly, with a good grasp of all basic devices</li> <li>• some minor errors</li> </ul>
Application	Level 3
ability to interpret media text and understand content	<ul style="list-style-type: none"> <li>• summary is an accurate description of the text</li> <li>• summary identifies all important content with little unnecessary detail</li> </ul>

## Preliminary Walk Through

Things I learned from the headline.

Things I learned from the graphics.

Things I learned from the first and last paragraph.

I think this article ...

is a factual piece

is an opinion piece

contains both facts and opinions

I think this article is about ...

## Identifying Details – The 5 Ws

Headline: \_\_\_\_\_

Subheading: \_\_\_\_\_

By-line: \_\_\_\_\_

- Preview the article, and then read.
- After you read, record details about who, what, where, when, why and how from the article. Also record in which paragraph you found the information.

	General Information	Para #	Detailed Information	Para #
Who				
What				
Where				
When				
Why				
How				

## Writing a Newspaper Article

You are going to write a newspaper article about an environmental issue. Titles for your article will be provided by your teacher.

It can be two columns if you wish, and it can include graphics, but it must take up only one side of a letter size page.

You can make up the content of the article or you can use information about an issue that you have studied in another class or that you have heard about in the news.

Use the following “writing” process steps to help you develop your media text:

**BRAINSTORM** – Make a list of possible topics and content.

**PLAN** your text – Write a an outline of the article.

**SHARE IDEAS** – Have others critique your outline and discuss ways to make it better.

Create a **ROUGH “DRAFT”**. Save a copy of this before you edit.

**PEER EDIT** – Have others help you check for errors.

Write the **FINAL PRODUCT**.

### Assessment

The final draft of your newspaper article will be assessed on the following criteria. The Communication section of the rubric is similar to one used on the Grade 10 Literacy Test.

Communication	Level 3
topic development	<ul style="list-style-type: none"><li>• clear and consistent focus</li><li>• sufficient specific supporting details to develop the article</li><li>• organization is logical</li></ul>
use of writing conventions	<ul style="list-style-type: none"><li>• errors in conventions do not distract from communication</li><li>• reader can easily follow the writer’s train of thought</li></ul>
Application	Level 3
ability to follow and carry out the “writing” process	<ul style="list-style-type: none"><li>• each step is completed</li><li>• the strategies used are effective (brainstorming methods generate ideas, plans allow for self and peer criticism, conversations are respectful &amp; productive...)</li></ul>

Company Wants to Drill for Oil in National Park

Greenpeace Demonstrates in Ottawa over Tar Sands

Moose Runs Wild in Montreal Suburb

Old Growth Forest Cut Down to Make Way for Ski Resort

Poachers in Nunavut Receive Record Fine

Record High January Temps Recorded in Saskatchewan

Too many cars?

Toronto Searches for Dump Site

Will the Cod ever return?

Wind Farms: Yes or No?

# CRITICAL LITERACY QUESTIONS

*Who is in the text/picture/situation?*

*Who is missing?*

*Whose voices are represented?*

*Whose voices are marginalized or discounted?*

*What are the intentions of the author?*

*What does the author want the reader to think?*

*What would an alternative text/picture/situation say?*

*How can the reader use this information to promote equality?*

# Practicing Critical Literacy

## *analyzing a media text*

Critically analyze the media text you have been assigned by answering the following questions in **point-form notes**. Give examples and arguments to support what you say. As you are answering the questions, think carefully about whether or not the text is **biased**.

1. Who is in the text/picture/situation? Who is missing?
2. Whose voices are represented? Whose voices are marginalized or discounted?
3. What are the intentions of the author? What does the author want the reader to think?
4. What would an alternative text/picture/situation say?
5. How can the reader use this information to promote equality?

Using the ideas you have generated by considering these questions, answer the following question in a 150 – 250 word paragraph: *Is this media text biased?*

When you have completed the paragraph, turn in your good copy and the point-form answers to the critical literacy questions.

### Assessment

Your analysis will be graded using the following rubric. Read it carefully to understand exactly what you should be showing the teacher with your answers.

Knowledge and Understanding		Level 3
understanding of <b>bias</b>		• clear understanding with mostly accurate examples
Thinking		Level 3
ability to identify and account for the ways texts manipulate readers		• provides good examples of omissions, instances of bias and prejudice etc.
Communication		Level 3
ability to express ideas using proper organization and conventions in paragraph form		• communicates clearly, with a good grasp of all basic devices and a small number of minor errors
Application		Level 3
ability to take point-form notes		• almost every point is concise and clear • at least two levels (ex. point, example) in some places

## Resources and References

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McLaughlin, M. and DeVoogd, G. L. *Critical Literacy: Enhancing Students' Comprehension of Text*. New York: Scholastic Inc., 2004.

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# **APPENDIX I**

## **CROSS-CURRICULAR TEACHING MATERIALS**

# **Global Awareness, Local Action**

## ***building respect for God's creation***

### **Cross-Curricular Culminating Performance Task**

In this Performance Task you are going to show what you have learned about how humans interact with their environment. This Task is divided into two Parts; a presentation on how humans treat the environment, and a report on your conservation project. These Parts are described below.

#### **Part I: Presentation on *How we treat the environment***

You will create a **media presentation** (slide show, pamphlet, video, poster, web page etc.) that depicts how people treat the environment in both positive and negative ways. You can plan this with others, but you must create your own presentation.

You must describe and explain two ways that people **treat the environment positively** and two ways we **mistreat the environment**.

Your presentation will conclude with a **formal written response** (100 – 150 words) to the following question: *As humans, do we have respect for God's creation?* From what you know about where you live, about Canada and about the world, argue whether or not you believe that God is pleased with how we interact with our environment.

Review the *Expectations to be evaluated* (see below) to help you ensure that your work shows that you have learned what you should be learning in each course.

#### ***Expectations to be evaluated***

Your presentation will show that we can do the following things:

describe how humans... manage...natural resources... (GEO)

describe positive and negative ways in which human activity can affect resource sustainability and the health of the environment (GEO)

assess the impacts of human activities and technologies on the environment... (SCI)

...identify factors that affect the balance between different components of the ecosystem. (SCI)

create a media text for a purpose and audience using appropriate forms, conventions and techniques (LAN)

...write for an intended purpose and audience (LAN)

#### **Part I *Expectations to be evaluated* (continued)**

think reflectively and creatively to make decisions in light of gospel values with an informed moral conscience (REL)

think reflectively and creatively to examine, evaluate and apply knowledge of interdependent systems (physical, political, ethical, socio-economic and ecological) for the development of a just and compassionate society (REL)

## **Part II: Conservation Project Report**

You will write a one to two page report on your *Reducing Lunch Waste* project. Include each of the following in your report. It is not necessary to do these in order, but your report should be organized so that the information is communicated clearly and logically.

- the rationale for the project: an in-depth explanation of how reducing lunch waste is good for the environment; include why it would be good for the health of humans in your explanation
- a brief description of the *Reducing Lunch Waste* project
- an explanation of whether or not your project was successful; you must use at least one mathematical graphic (chart, graph etc.) to support what you say

### ***Expectations to be Evaluated***

Your report will show that that can do the following things:

describe positive and negative ways in which human activity can affect resource sustainability and the health of the environment (GEO)

assess the impacts of human activities...on the environment... (SCI)

demonstrate the ability to apply health knowledge and living skills to make reasoned decisions and take appropriate actions relating to their personal health and well-being (H&PE)

display...data using charts and graphs, including relative frequency tables and circle graphs (MAT)

make and evaluate convincing arguments, based on the analysis of data (MAT)

...write for an intended purpose and audience (LAN)

# Environmental Impact Assessment

The students will conduct an environmental impact assessment on activities that they do in a variety of curriculum areas (see below for suggestions). This assessment will help them see that all human activities require certain things from the environment and have obvious and hidden impacts on the environment.

Ways in which human activity might impact or be impacted by the environment.

- resources used or impacted directly
  - water
  - air
  - vegetation
  - land: soil, mineral resources, space
- impact caused by equipment used
- impact caused by facilities needed
- other related factors (ex. transportation)
- attitudes fostered (human use of the environment can foster both positive and negative attitudes ex. hiking helps us see its beauty)

The students should also be thinking about **ways to lessen the negative impact** of their interaction with the environment.

## Cross-Curricular Applications

Curriculum areas in which environmental impact assessment can be used to support subject expectations..

**Geography:** impact of international trade, resource development, urbanization etc.

**Science and Technology:** humans' impact on the ecosystem

**Physical and Health Education:** impact of sporting activities; impact of eating & drinking

**Language:** impact of different text forms - TV vs. film vs. web vs. posters vs. tablets

**Mathematics:** calculations that need to be done to do gauge environmental impact

**Religion:** impact of churches, celebrations, missionary work

## Cross-Curricular Assessment

The skills can be assessed in all curriculum areas:

**TH:** ability to solve problems

**CM:** ability to clearly express ideas

**AP:** ability to make connections to specific curriculum content

# ENVIRONMENTAL ISSUES

acid rain	over fishing
air travel	over grazing
automobiles	ozone depletion
burning fossil fuels	use of pesticides
carbon monoxide/dioxide emissions	disposal of plastic
use of chemical fertilizers	poaching
frivolous consumption	personal pollution
deforestation	radioactive waste disposal
forest fires	seal hunt
global warming	soil contamination
hunting	urban sprawl
landfills	waste
strip mining	waste disposal
use of nuclear power	water diversion
oil spills	wind farms
over cultivating	

