

Garbage? It Depends How You Look At It!

Grade 6 RETHINK GARBAGE



Introduction

After viewing the film *Talkin' Trash* produced by the City of Ottawa, Grade 6 students will have the chance to examine some of the garbage issues facing many cities using the new perspective they have acquired particularly about how to reduce the amount of garbage they generate through their choices and actions. Students will be challenged to develop their point of view regarding the environment and environmental stewardship. One of the activities (Activity E) is a take-it-home activity that the students can use to examine their practices at home. As well as the activities, the Journal Topics will allow students to begin reflecting on our waste habits and developing their own ideas and solutions through creative journaling.

Activities included in the Grade 6 Curriculum Package

- A. Introduction – It depends on how you look at it: In this group activity students will be challenged to look at the items we throw out on a regular basis and think about how those items can be reduced or reused.
- B. Environmental Code of Ethics: Students will have a chance to develop their own environmental code of ethics that they can follow to ensure that the amount of garbage and its impact on the environment is reduced.
- C. Let's talk about Garbage: Students will look closely at the various perspectives in a waste disposal crisis. They will have a chance to role play and debate the different points of view.
- D. Garbage Bumper Stickers/Cartoons: Media plays an important role in our society. Using their environmental code of ethics and the concepts behind the RETHINK GARBAGE campaign, the students will design a bumper sticker or a comic strip that will get their message across about garbage
- E. Waste Watchers Diary: This is a take-it-home activity to encourage the entire family to RETHINK GARBAGE and to become active in reducing the garbage that is generated.
- F. Sorting Game: Students will be introduced to the City of Ottawa's new Green Bin program. This activity will make students think about how much waste can be diverted from landfill by using the blue, black and green bins to recycle and compost.

Many extensions have been included with the activities. Please adapt the activities as necessary. Rethinking garbage is a task for all of us. These activities are only a beginning. Allowing students to 'rethink' the way they select and dispose of items now will have an impact on the decisions they make in terms of future waste disposal choices. A list of journal entry topics has been included in the RETHINK GARBAGE curriculum package for students to expand and internalize their approach to the 4 Rs.

Curriculum Expectations

The following curriculum expectations are addressed in the activities in this Grade 6 package:

The Arts

- produce two- and three-dimensional works of art that communicate a range of ideas for specific purposes and to specific audiences using a variety of familiar art tools

Language Arts

Writing

- organize information to convey a central idea using well linked paragraphs
- use a variety of sentence types and sentence structures appropriate for their purposes
- revise and edit their work in collaboration with others, seeking and evaluating feedback and focusing on content, organization, and appropriateness of vocabulary for audiences
- produce pieces of writing in a variety of forms (e.g., newspaper articles, lyrics, summaries of information), techniques and resources appropriate to the form and purpose and materials from other media
- communicate ideas and information for a variety of purposes (to inform, to persuade, to explain) to specific audiences
- use and spell correctly the vocabulary appropriate for this grade level

Reading

- read aloud showing understanding of the material and awareness of audience
- decide on a specific purpose for reading and select material that they need from a variety of sources
- understand the vocabulary and language structures appropriate for this grade level
- use conventions of written materials to help them understand and use materials

Suggested Activity: Let's Talk Garbage

Oral Visual Communication

- make reports, describe and explain a course of action, and follow detailed instructions
- ask and answer questions to obtain and clarify information
- express and respond to a range of ideas and opinions concisely, clearly and appropriately
- contribute and work constructively in groups

Media Literacy

- produce a variety of media texts for specific purposes and audiences, using appropriate forms, conventions, and techniques

Suggested Activity: Bumper Stickers and Comic Strips

Social Studies

- describe the relationship between Aboriginal peoples and their environment (e.g., food, shelter, cultural practices)
- locate information about the relationship between the environment and aboriginal lifestyles

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A. IT DEPENDS ON HOW YOU LOOK AT IT!

Teacher Notes:

In this group activity students will be challenged to look at the items we throw out on a regular basis and think about how those items can be reduced or reused. There are often items that are in good shape that make it into the garbage. Are there ways that we can divert these items from our local landfill? There are other items that come with too much packaging or are only good for one use (i.e., disposable). To prepare for this activity, you will have to:

1. Gather items that might normally be thrown out in the garbage (suggestions below).
2. Place these items around the room.
3. Put the name of the item at the top of a sheet of paper and place the piece of paper with the item.

Suggested Time Line: 30 minutes

Materials:

- Approximately 15 items that we would throw in the trash on a regular basis such as
 - Fine paper
 - Broken crayons
 - Milk carton
 - Newspaper
 - Toilet paper roll
 - Egg carton
 - Box (cereal box, granola bar box, larger box)
 - Tetra-pak
 - Plastic pop bottle
 - Bottle
 - Packaging from an electronic item
 - 1 piece of paper for each item of garbage

Pre-Activity Discussion Questions:

1. What did the video teach you about the three Rs? Which of the 3 Rs do you think could have the greatest effect on reducing waste if everyone practised it more?
2. Did you notice anything in the landfill in the video *Talkin' Trash* that could have been reused?
3. What things do you reuse?

Activity:

1. Each station will have one piece of 'garbage' and a sheet of paper.
2. Each group of students will rotate around the room to each station. They will spend only a few minutes at each station.
3. On the large piece of paper, students will write as many ideas as to how the item can be reused. Students must add different suggestions to the list and may not repeat a suggestion that has already been written.

Follow-up Questions:

1. Review the suggestions on each list.
2. What makes something garbage?

Classroom Extensions:

1. Choose one of the pieces of garbage (or something you have thrown out today) and write about its life from creation to the landfill site.
2. What messages would you send to retailers about the way they package their products, messages that would make a difference?
3. Imagine you are a piece of garbage (pick a specific kind). How do you affect the environment?
4. As an assignment students could create a craft or something useful using items that would have otherwise gone into the garbage or recycling. Review the criteria before beginning.

Additional Resources:

1. www.earthcarecanada.com (see the Lessons and Activities for Grade 6 under 'Resources')

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Grade 6 RETHINK GARBAGE



B. ENVIRONMENTAL CODE of ETHICS

Teacher Notes:

The mantra 'Reduce, Reuse, Recycle' has been adopted as part of our environmental code of ethics. Students will develop their own environmental code of ethics that they can follow to ensure that the amount of garbage and its impact on the environment are reduced.

Suggested Time Line: 30 minutes

Materials:

- Poster paper
- Markers

Pre-Activity Discussion Questions:

1. What decisions do we make that directly affect the environment?
2. Create three columns on the board (helps, hurts, neither). Have the students brainstorm 10 actions under each column
3. What is a code of ethics?

Activity:

1. In small groups (4 or 5) students will create 8 rules for our code of ethics.
2. Together with the class, combine their ideas on the board.
3. Have the students agree on 15 rules to create a list that citizens can follow to help to keep the environment clean.
4. Have students answer the following question in their journals: *What are 5 things you can do at school to help stick to our Environmental Code of Ethics?*
5. Place the code of ethics somewhere in the class that it can be easily seen and referred to. The class could also post a copy outside the room for others in the school to see.

Follow-up Questions:

1. Does Ontario or Ottawa have an environmental code of ethics?
2. Who makes our environmental rules?
3. Who makes decisions about our garbage systems?

Classroom Extensions:

1. Students can share their class Environmental Code of Ethics as part of an assembly.
2. Take a copy of the Environmental Code of Ethics home. Which of the 'rules' do they follow at home? (See homework questions on handout.)

Additional Resources:

1. *50 Simple Things Kids Can Do To Save The Earth*. The earth works group. Andrews and Mcmeel.1990
2. www.ec.gc.ca/youth/
3. www.keen.net.org
4. www.newdream.org

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C. LET'S TALK GARBAGE

Teacher Notes:

Students will look more closely at the various perspectives in a waste disposal crisis. They will have a chance to role-play and debate the point of view of the character that they are assigned. Before handing out the roles, please use the story Mungletown's Garbage Dilemma (attached) to read aloud as a shared reading exercise. This will allow the students to understand the situation in Mungletown before they begin to prepare their point of view. While the students are presenting, the teacher should keep a list on the board of the advantages (PROS) and disadvantages (CONS) to the new landfill site. Following the presentations the class can clearly see the points on each side of the argument.

This activity can be used to enhance the Language curriculum. It can be integrated as a component of the Oral Communication and Reading modules: speaking to communicate, extending understanding, and comprehension.

Suggested Time Line: 60 minutes

Materials:

- a copy of the Mungletown Garbage Dilemma story (attached)
- two copies of the role cards (attached)

Activity:

Part One: Shared Reading – *Mungletown Garbage Dilemma*

1. Read the Mungletown Garbage Dilemma story aloud. While reading, the students should be following along. (The story can be enlarged and displayed on an overhead.)
2. Ask the students the following shared reading questions:
 - i. What did you learn about Mungletown?
 - ii. What is the traditional landfill site in Mungletown like?
 - iii. Who will use the new landfill site?
 - iv. What is the purpose of the town meeting?
 - v. In the video *Talkin' Trash*, what did a modern landfill site look like?

Part Two: The Debate

1. Each student will receive a role card. The role card tells them which point of view they will take for the following activity. It should be stated that often students will be representing positions or perspectives that aren't their own and that they do not share with their character.
2. Students will look at their role and find their partner (the person with the same role).
3. As a pair, the students will write a paragraph about their character's point of view. They may need to be creative and embellish the story. Encourage them to use their imagination.

4. The class will then present their points of view to each other.
5. Students will sit on one side of the room or the other ('For' the new landfill and 'Against' the new landfill).
6. Students will present in order, one on the 'For' side and then one on the 'Against' side taking turns until everyone has had a chance to present.
7. While the students are presenting, the teacher should record on two separate pieces of chart paper the major points from the two sides so that the students can refer to it after the presentations.
8. After presenting students should write a paragraph about what they think should happen in the Mungletown Garbage Dilemma. This could be homework or an in-class assignment.

Follow-up Questions:

1. How do Ottawa's modern landfills differ from the Mungletown dump?
2. Did this exercise make you think about a point of view you had never considered?
3. What actions could you take to influence people to rethink their waste disposal habits?

Mungletown Garbage Dilemma Role Cards

1. Photocopy these role cards twice.
2. Each student should get a role card.
3. There should be two students playing each role.
4. Students should find their partner (person with the same role).
5. Together they will use their role cards to write a paragraph about their character and her/his point of view on the Mungletown Garbage Dilemma.
6. They will present these views at the 'town council' meeting.



<p style="text-align: center;">BIRDER BOB</p> <p>I use the recreational trails to hike. I enjoy looking at the local animals. The dump is a problem because some of the local animals like the bear eat at the dump because it is an open pit and is not closed in with a fence. A new facility would prevent this from happening.</p>	<p style="text-align: center;">GRANDMA SALLY</p> <p>I live 1 km from the dump but on windy days it smells horrible in my neighbourhood. Not only does the dump smell but it is too close to our community it is dangerous for my grandchildren when they play.</p>
<p style="text-align: center;">FRIGHTENED FREDDY</p> <p>I have allergic reactions whenever I go for walks near the dump. I get horrible headaches afterwards. It is about time they cleaned it up and replaced it with a cleaner facility. The province should ban these open dumps.</p>	<p style="text-align: center;">FRANKY 4-WHEELER</p> <p>I like to use the recreation trail but even a kilometre away from the dump there is garbage spread out all over the trail and the forest. It isn't enjoyable using the trail when it is covered in garbage. We need to change the way we dispose of our garbage.</p>
<p style="text-align: center;">RECYCLING RENEE</p> <p>Are we going to be recycling at the new dump? Right now we can't recycle at all unless we drive more than two hours to the recycling depot. All of that recycling could be diverted to the Mungletown dump if we just had the proper system.</p>	<p style="text-align: center;">WORRIED WALT WATERS</p> <p>I live close to the dump and am worried that the ground water is contaminated. Will the new dump have a way to filter the toxic chemicals from leeching into my well? These old-fashioned dumps create environmental nightmares that take years to clean up.</p>

<p style="text-align: center;">FREIDA FIXR-UP</p> <p>Maybe if Welnock pays a fee for dumping its garbage here we could afford to fix our park and our town hall. This new landfill might be good for this community.</p>	<p style="text-align: center;">KEN KEEP-IT</p> <p>Why are we getting a new landfill anyway? Is it just because Welnock needs somewhere to dump its garbage? They should keep their garbage - we don't want it here!</p>
<p style="text-align: center;">DUMP KEEPER DAN</p> <p>I run the Mungletown dump and our dump is run well. It is clean and I do the best that I can to keep the garbage in the boundaries of the dump. We follow all the rules and we are just fine. We don't need a fancy, expensive new landfill site. People are just paranoid. There is nothing to worry about.</p>	<p style="text-align: center;">TERRI TAXES</p> <p>I don't want my taxes to go up with a new dump. Our dump works just fine the way it is. We can't afford a fancy new landfill site. Somebody has to pay for it and it isn't going to be me.</p>
<p style="text-align: center;">LENNY LANDOWNER</p> <p>How big is this dump going to be? I don't want to have to give up any more land for this new landfill. I heard that everyone around the landfill will lose some land. I say we are just fine with the small dump we have.</p>	<p style="text-align: center;">ENERGY ED</p> <p>I heard about those new facilities that can create energy by breaking down our garbage. If we could create energy we would be able to sell it and make money.</p>
<p style="text-align: center;">ESTER EMPLOYMENT</p> <p>The new landfill site will employ more local people. Right now we just have two landfill attendants but with a large landfill site we will need more staff.</p>	<p style="text-align: center;">SAMMIE SIZE</p> <p>The proposed landfill site is too big. We don't need something that large. It just seems like a waste of money to build such a large landfill when we are such a small community.</p>
<p style="text-align: center;">SEPARATING SETH</p> <p>People in Mungletown are behind the times. People in the city have been separating their garbage and their recycling for a long time. We need to get rid of this dump and move into the 21st century.</p>	<p style="text-align: center;">MARTY MONEY</p> <p>This landfill is going to take a long time to build. What are we going to do until it is built? Do we have enough money? I think all the other cities around us should put money in, too.</p>

Mungletown Garbage Dilemma Story

Mungletown is a community about 90 minutes away from the city of Welnock. Welnock is a large city. Mungletown is a small community surrounded by other small towns and villages. Mungletown is known for its beautiful hiking and recreational trails. People come from long distances to use these trails. But Mungletown has a garbage problem.

The community has an old-fashioned dump that is used by all the surrounding towns and villages. This dump is a traditional dump where citizens bring all of their waste, appliances, tires, wood, garbage and even recycling. Their recycling gets mixed in with all the other garbage because the local recycling plant is more than two hours away. All the garbage is put into separate piles but often the piles get mixed together and items end up in the wrong piles. Much of the paper and wood garbage is burned. But if the garbage piles are mixed up, then often plastic and metal items get burned as well. Every three months the Mungletown landfill has a new pit dug to put the garbage in. But they are quickly running out of space to dig pits for garbage disposal.



The traditional dump is slated for closure this year and will be replaced by a modern landfill site. The community has mixed feeling about the new garbage facility. The new facility will take up more land and be used by more communities and may eventually even have garbage brought from Welnock.

The local town council is having a town meeting to hear the concerns of the town's people. People are talking; everyone has an idea about how the new waste management system should work. This is their chance to make their opinion heard, ask questions, and get answers about the upcoming changes to their garbage system.

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D. BUMPER STICKERS & COMIC STRIPS

Teacher Notes:

Media plays an important role in our society. The two forms of media used in this exercise are bumper stickers and comic strips. Using their environmental code of ethics and the concepts behind the RETHINK GARBAGE campaign, the students should design a bumper sticker or a comic strip that will get their message across about reducing waste.

This activity can be used to enhance the Language curriculum. It can be integrated as a component of the Media Literacy module: conventions and techniques; media production.

Suggested Time Line: 45 min (they may need more time depending on the detail in their comic strips)

Materials:

- Bristol board
- Pieces of cardboard
- Pastels, crayons, or markers

Activity:

1. Before students begin the activity, review the techniques or materials you would like them to use while creating their comic strips or bumper sticker (e.g., pastels, watercolour, mixed media, etc.).
2. Students will create an environmental message that is related to the 4 Rs.
3. Students will then be given time to develop a rough draft before starting to draw/create their final product.
4. After the students have created their bumper stickers and comic strips, display them so that the rest of the school or community can enjoy them.

Follow-up Questions

1. What do the media do to help or hinder the RETHINK GARBAGE campaign?
2. Do you listen to the media?
3. What are some ways to use the media to help us to reduce, reuse, and recycle?

Classroom Extensions:

1. Students could choose from other media sources as well such as a newspaper, magazine cover, commercials, billboards (mini) and complete the same activity using a variety of media types.
2. This activity could be used as part of an outreach program. When sharing your class environmental code of ethics in your school, you can be displaying your bumper stickers and sharing your comic strips.

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E. WASTE WATCHER'S DIARY (a take-it-home activity)

Teacher Notes:

Part of the Environmental Code of Ethics is observing what we do, rethinking what we do, and making changes to help create a better environment. Students should take a copy of the Waste Watcher's Diary handout home and complete it. They will need to observe their family's habits and ask them questions.

Suggested Timeline:

Students will need 3 days to a week to keep track of their family's choices about waste generation and disposal.

Materials:

- A Waste-Watcher's Diary for each student

Activity:

1. Photocopy the sheets provided (print double-sided please), then fold them in half to create the Waste Watcher's Diary
2. Have students write their name and due date on the front of their Diary before taking it home.

Follow-up Questions:

1. How did your family feel about examining their garbage?
2. What are some other ways you can keep track of your waste?
3. After examining your waste, do you feel any differently about what you throw in the garbage?
4. What are some ways your family could reduce the amount of waste they generate?
5. What one thing can you do yourself to make sure the City of Ottawa's RETHINK GARBAGE campaign is followed? What could you do as a school? As a community?

WASTE WATCHER'S DIARY

- 16. How many people are in your family?
- 17. How many bags of garbage do you put out each week for pick-up?
- 18. Does your family compost or use the green bin?
- 19. Do you use your composter or green bin all year round?
- 20. Does your family use the blue box?
- 21. What types of things does your family put in the blue box?



Name: _____
Due Date: _____

- 22. Does your family use the Black Box?
- 23. What types of things does your family put in the black box?

- 24. Where does your family keep your recycling?

- 1. What items does your family not recycle? Why not?

2. Does your family use new plastic garbage bags every week for shopping?
3. Do you reuse old bags or have reusable shopping bags?
4. How many cans does your family use a week?
5. How many plastic jugs does your family use a week?
6. Does everyone in your family who takes a lunch have reusable lunch bags?
7. Do you have reusable containers for your lunches?
8. Does anyone in your family make a litterless lunch?
9. When you shop, does your family buy in bulk?
10. When you shop does your family consider whether the product has too much packaging?

11. Find your 2 favourite snacks/lunch foods. Look at the packaging. How many pieces of garbage are in these items? Draw each layer

a) Item 1
Layers of packaging

b) Item 2
Layers of Packaging

12. What do these questions tell you about how your family recycles waste?

13. What are 3 ways your family could recycle more effectively?

Black, Blue or Green?

Grade 4 RETHINK GARBAGE



F. SORTING GAME – Reducing Waste

Teacher Notes:

The students will be introduced to the City of Ottawa's new Green Bin program. This activity will make students think about how much waste can be diverted from landfill by using the blue, black and green bins to recycle and compost.

Suggested Time Line: ~45 minutes

Materials:

- Black box, Blue box, Green bin
- Various recyclables and compostables (e.g. chicken bones, aluminum can, plastic container, leaves, glass bottle, egg shells, banana peel, newspaper, cardboard and “trick” items, such as pizza boxes, plastic bags, other unrecyclable plastics, styrofoam, etc.) **NOTE:** Cards with pictures of recyclables and compostables can be used if preferred to the ‘real’ thing

Discussion:

1. Ottawa has a new Green Bin program which allows for composting things like food scraps. What is composting? How does it help the environment?
2. What happens to our garbage after we put it at the curb to be picked up? (By talking about landfills and promoting good waste disposal habits we can start to reduce our impact on the local environment.)

Activity:

1. Set up the three bins and divide students into two groups.
2. Divide the card/items among the two groups
3. Students will discuss sorting the items with their groups
4. Students will put the items or picture cards into the selected bins.
5. After the sorting is completed, ensure that the items/cards were sorted properly (have a class discussion if mistakes are made during the sorting process. Discuss the mistakes and indicate the correct receptacles).
6. Review how much waste can be recycled and composted rather than put in the garbage.

Follow-up Discussions:

1. Who is responsible for how much garbage goes to the landfill sites?
2. Are there ways you can reduce how much garbage we create?
3. What did you learn from completing the Sorting Game?

Classroom Extensions:

1. Encourage students to recycle and compost at home. Students can challenge their parents to play the sorting game.
2. Students can make signs to put up around the school near garbage cans and recycling bins. They can also take their signs home to help their parents sort garbage, and recycle and compost properly.

Additional Resources:

1. www.ottawa.ca/greenbin
2. www.ottawa.ca/recycling