

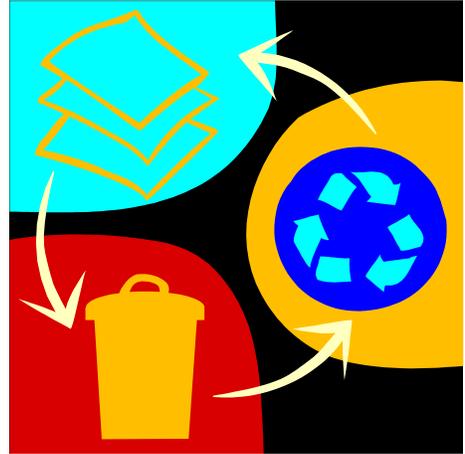
# Too Close for Comfort

## Grade 4 RETHINK GARBAGE

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### Introduction

This is a comprehensive package that explores the issues surrounding our garbage and what we do with it. The following activities are intended to be used after watching the City of Ottawa's video *Talkin' Trash*. Students are given the opportunity to challenge what we are currently doing with our garbage. Grade 4 students will look at where they dump their garbage and how it impacts on human and animal habitats. This package includes in-class activities, take-it-home activities, and additional resources. This package may be used in its entirety or you may select activities based on your timeline or classroom needs. Enjoy exploring garbage!



### Activities included in the Grade 4 curriculum package:

- A. An Introduction to Reduce, Reuse, Recycle, and Rethink: This activity introduces students to the vocabulary and definitions used in the activities that follow.
- B. Habitats and Garbage – The Big Picture: Students will examine what a habitat is and how we might affect our habitat and the local animal habitats as well.
- C. Garbage Scoreboard: This activity encourages students to look at their own habits and knowledge about the 4 Rs and to 'Rethink' these habits.
- D. Number Crunching – Graphing Grade 4 Garbage: Students will use data collected from garbage and recycling in their classroom to create different types of graphs.
- E. A Garbage Board Game – Examining our Garbage Choices: The students will create garbage board games that will make them and others think about choices made with respect to waste disposal.
- F. A Garbage Campaign – Creating Change: This is an outreach activity where students will try to motivate others to Reduce, Reuse, Recycle, and Rethink Garbage. They will use some of the items they have created in the other activities to help them encourage others in their school to RETHINK how they look at the waste they create. Students will have a chance to examine the role the media has in encouraging citizens to recycle. They can use a multimedia approach and create a garbage rap and/or garbage posters to entice other students to follow the 4 Rs.
- G. Take-it-Home Activity: Students take home a Household Garbage Survey and review the waste disposal habits at home.
- H. 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 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 4 package:

### Mathematics

- collect and organize data and identify their use
- interpret displays of data and present the information using mathematical terms data in charts, tables and graphs

*Suggested Activity: Number Crunching – Graphing Grade 4 Garbage*

### Language Arts

#### Oral and Visual Communication

- communicate various types of messages, explain some ideas and procedures, and follow the teacher's instructions
- ask questions on a variety of topics and respond appropriately to the questions of others
- express and respond to ideas and opinions concisely and clearly
- contribute and work constructively in groups
- use conventions of oral language, and the various media, that are appropriate to the grade

#### Writing

- communicate ideas and information for a variety of purposes and to specific audiences
- begin to write for more complex purposes (research, gather information)
- revise and edit their work, using feedback from the teacher and their peers

*Suggested Activity: Garbage Board Game*

#### Reading

- understand the vocabulary and language structures appropriate for this grade level
- use conventions of written materials to help them understand and use those materials

*Suggested Activity: Introduction to Reduce, Reuse, Recycle, and Rethink.*

#### Media Literacy

- produce media texts for specific purposes and audiences, using a few simple media forms and appropriate conventions and techniques.
- express opinions about ideas, issues, and/or experiences presented in media texts, and give evidence from the texts to support their opinions

*Suggested Activities: Garbage Board Game, Garbage Campaign*

## **Science and Technology**

- demonstrate an understanding of the concepts of habitat and community, and identify the factors that could affect habitats and communities of plants and animals
- describe the ways in which humans can change habitats and the effects of these changes on the plants and animals within the habitats

*Suggested Activity: Habitats and Garbage.*

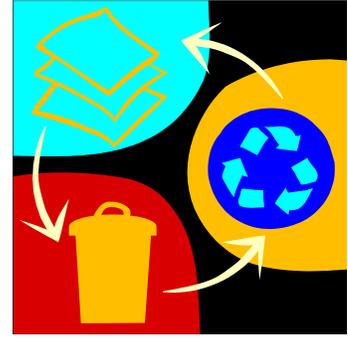
## **The Arts**

- create and perform music, using a variety of sound sources
- produce two- and three-dimensional works of art that communicate ideas for specific purposes and to specific audiences
- interpret and communicate the meaning of stories, poems, plays and other material drawn from a variety of sources and cultures using a variety of drama techniques

# Too Close for Comfort

## Grade 4 RETHINK GARBAGE

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### A. An Introduction to REDUCE, REUSE, RECYCLE, and RETHINK

#### Teacher Notes:

This discussion will introduce the students to the vocabulary and ensure that all the students have the same definition for the words that will be used in the following activities. In preparation the teacher should write one of each of the words in the centre of a large piece of paper. This is a group activity.

*This activity can be used to enhance the Language curriculum. It can be integrated as a component of the Reading or Writing modules: learning and understanding familiar and unfamiliar words.*

**Suggested Time Line:** ~ 15 to 20 minutes

#### Materials:

- Large pieces of writing paper (e.g., chart paper)
- Markers or crayons

#### Activity:

1. The teacher will write one of the following words in the middle of a large piece paper (10 papers in all).
  - Compost
  - Ecosystem
  - Environment
  - Environmentally-friendly
  - Habitat
  - Landfill
  - Pollution
  - Reduce
  - Reuse
  - Recycle
2. Each group (5 or 6 students per group) will have one marker and one of the large pieces of paper with one of the above words in the middle of it. They will brainstorm possible definitions for the word and will write it on their paper
3. Each group should then share their definitions with the class; the class will have a chance to make comments and additions.
4. Papers can be posted in the room so that students can refer to them while they are completing other RETHINK GARBAGE activities.

## Suggested Definitions of Environmental Words

**Compost:** Basically it's food for plants. Compost is made from a mixture of organic material (such as leaves, plant parts, leftover fruits and vegetables, meat and bones) that rots or decays into an earth-like substance which can then be mixed into gardens or used to help plants, grass and trees to grow better.

**Ecosystem:** A community composed of living and non-living organisms that interact with each other (e.g., a lake, a forest).

**Environment:** Our environment is the place that we live in and everything in it – the ground we walk on, the air we breathe, and the water we drink. We share our environment with the other organisms that live here.

**Environmentally-friendly:** Things are called environmentally-friendly when they do not harm the earth, water, air, or living species in our environment.

**Habitat:** A place or environment in which specified organisms live.

**Landfill:** A landfill site (or garbage dump) is a large hole in the ground which is filled with garbage from our homes, schools, shopping centres, factories, etc.

**Organic:** Anything that came from a living plant or animal.

**Pollution:** Pollution is waste material such as garbage, chemicals and unnatural things that do not belong in the air, water, or ground. When too much of a harmful item gets into the wrong place, we say that it is polluted.

**Reduce:** As the first of the 4 Rs, reducing refers to creating less personal garbage. Buying products with less packaging, not buying disposables, and only buying what you really need are examples of ways we can reduce.

**Reusing:** To use something over and over again is reusing (e.g., taking your plastic bags back to the store when you buy new groceries). Reusing allows us to reduce the amount of garbage that goes into landfill sites.

**Recycling:** Recycling is changing something that is no longer useful into a new and useful product (e.g., pop cans are melted down to make new cans and tires can be broken down to make filler for roads).

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### B. HABITATS and GARBAGE

#### Teacher Notes:

Students will examine what a habitat is and how we might affect our habitat and the local animal habitats as well. Once the students have completed their drawings of the perfect environment and the polluted environment, the focus should be on discussing actions the students can take to improve or help the environment.

*This activity can be used to enhance the Science and Technology curriculum. It can be integrated as a component of the Life Systems module: concepts of habitat and community; human effects on the environment.*

**Suggested Time Line:** ~ 30 minutes

#### Materials:

- Large art paper for each group
- Crayons, markers, or pencil crayons

#### Introduction Discussion:

1. What is a habitat?
2. What do all animals need to survive?
3. How does what we throw out affect our wildlife and their habitats?

#### Activity:

1. Draw a picture of your perfect habitat/environment and everything in it.
  
2. On another paper draw a picture of all the ways our habitat and environment can be destroyed.

#### Follow-up Discussion:

1. What are some examples from the video *Talkin' Trash* of the negative impacts we can have on our environment?
2. What can we do to make sure our environment isn't destroyed?

#### Classroom Extensions:

1. If a large roll of newsprint is available, the class could create 2 large murals using paint. One mural should be a perfect environment and the other should represent all the ways in which we could destroy it. The mural could be displayed in the hallways of the school.
  
2. Vermi-composting in the classroom is an easy way for students to observe all the aspects surrounding habitats. Vermi-composting can easily be done in the classroom and is a great way for the students to see that they can do something to improve their performance on the garbage scoreboard (in Activity C) as well.

**Additional Resources:**

1. City Kids and City Critters, Janet Wier Roberts and Carol Huelbig; McGraw Hill 1996 – This book is about exploring the city and preserving habitats.
2. The Wump World, Bill Peet. Houghton Mifflin - This book is a fictional story about a simple grazing environment turned into a polluted industrial complex.
3. Worms Eat My Garbage, 2<sup>nd</sup> edition, Mary Applehof, Flower Press. 2003 - Everything you ever wanted to know about vermi-composting.
4. [www.wormwoman.com](http://www.wormwoman.com)
5. [www.wormswrangler.com](http://www.wormswrangler.com)
6. [www.kidsface.org](http://www.kidsface.org)
7. [www.kidsplanet.org](http://www.kidsplanet.org)
8. [www.earthcarecanada.com](http://www.earthcarecanada.com) (see the Lessons and Activities for Grade 4)

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## Grade 4 RETHINK GARBAGE

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### C. GARBAGE SCOREBOARD

(Rethink! Are you remembering the 4 Rs?)

#### Teacher Notes:

In the following activity students will complete the garbage scoreboard (attached) and calculate their scores to see how well they are doing in the quest to reduce, reuse, and recycle. Students will be able to make suggestions to improve their individual scores. If every student improves her or his garbage scoreboard score, this would decrease the amount of garbage significantly.

**Suggested Time Line:** 15 - 20 minutes

#### Materials:

- A copy of the Garbage Scoreboard for each student (copy on 2 sides of the paper)

#### Activity:

1. Students will individually complete the Garbage Scoreboard and make suggestions for individual improvement.
2. After a week the scoreboard can be completed again checking to see if the scores have improved.

#### Follow-up Discussions:

1. Who is responsible for how much garbage goes to the landfill sites?
2. Are there ways we as a classroom can control how much garbage we create?
3. What were some of the suggestions Sarah had in the video?
4. What did you learn about yourself from completing the Garbage Scoreboard?

#### Classroom Extensions:

1. Visit a local landfill site, recycling or composting facility.

#### Additional Resources:

1. [www.epa.gov/kids/garbage.htm](http://www.epa.gov/kids/garbage.htm)
2. [www.learner.org/exhibits/garbage/intro.html](http://www.learner.org/exhibits/garbage/intro.html)
3. [www.niehs.nih.gov/kids/recycle.htm](http://www.niehs.nih.gov/kids/recycle.htm)

## Garbage Scoreboard

Instructions:

1. Read each column in the garbage scoreboard and give yourself points according to your waste disposal habits.
2. Total your points in each column to get your final score.
3. Fill in the 'Improving my score' section on the back of the Scoreboard.

Remember this is about Rethinking how we Reduce, Reuse, and Recycle. This activity is not a contest! NOBODY WILL GET A PERFECT SCORE because there is always room for improvement. Be honest.

<b>Give yourself 5 points if:</b>	<b>Give yourself 3 points if:</b>	<b>Give yourself 1 point if:</b>	<b>Give yourself -2 pts if:</b>	<b>Give yourself -5 pts if:</b>
<ol style="list-style-type: none"> <li>1. You try to buy products that have the least packaging.</li> <li>2. You have a garbage-free lunch</li> <li>3. You use both sides of your paper</li> <li>4. You compost</li> <li>5. You send clothing to the charity when you are finished with it</li> <li>6. You pass on your old toys to someone who will play with them</li> </ol>	<ol style="list-style-type: none"> <li>1. You can recycle some of your lunch today</li> <li>2. You use the blue box to recycle</li> <li>3. You use the black box to recycle</li> <li>4. You use your green bin to collect compost</li> <li>5. You recycle your paper when you are done with it</li> <li>6. You reuse items (that you normally would have thrown out) to make crafts or for other things</li> </ol>	<ol style="list-style-type: none"> <li>1. You have a reusable lunch bag or box</li> <li>2. You help to sort/set out the recycling and the compost</li> <li>3. You know what the 4 Rs are</li> <li>4. You have picked up a piece of garbage in your school or school yard</li> </ol>	<ol style="list-style-type: none"> <li>1. You have more than 2 pieces of garbage in your lunch</li> <li>2. You have thrown out an old toy that could have been used by someone else</li> <li>3. You spit your gum on the sidewalk when you are done chewing it</li> <li>4. You don't pick the litter up in your yard at school</li> <li>5. You use the black box but not the blue box</li> <li>6. You throw organic waste in the garbage instead of composting</li> </ol>	<ol style="list-style-type: none"> <li>1. You have littered in the past week</li> <li>2. You don't recycle</li> <li>3. You don't have any reusable containers in your lunch</li> <li>4. You throw all your lunch items in the garbage. You don't think about whether they are recyclable or compostable</li> <li>5. You have more than 5 pieces of garbage in your lunch</li> </ol>
Your score:	Your score:	Your score:	Your score:	Your score:
Total:				

### **Improving My Score:**

What did you think about your final score?

Are you practising all the Rs or just some of them?

What 3 things can you do to improve your score?

1.

2

3.

Try these 3 suggestions to improve your score. After a week, repeat the scoreboard to see if you were able to follow your ideas for improvement.

### **After one week:**

Repeat the Garbage Scoreboard and answer the following questions:

1. Were you able to follow your suggestions to improve your waste disposal habits? Why? Why not?
2. Did you learn anything about yourself while completing this exercise?
3. Are you going to continue your new habits? Why? Why not?

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## Grade 4 RETHINK GARBAGE

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### D. NUMBER CRUNCHING – Graphing Grade 4 Garbage

#### Teacher Notes:

Students will have a chance to examine how their class is reusing, recycling and composting. They will collect garbage for one day and use a tally system to keep track of it. They will then graph what they collect and calculate the percentage of the items that were garbage and which could be reduced, reused, recycled or composted.

*This activity can be used to enhance the Mathematics curriculum. It can be integrated as a component of the Data Management and Probability module: collect and display data; understand and interpret charts and graphs.*

1. To prepare for the garbage collection you will need some recycling bins and some boxes with labels on them to make it easier for students to divide their garage. If these are set up at the beginning of the day, students can start to follow the system first thing in the morning. Containers should be labelled for:
  - Paper
  - Cans/plastic
  - Compost/green bin
  - Items that can be reused
  - Garbage (can't be recycled, composted, or reused)
2. Put a tally sheet on each box so every time students throw something out, they can put a tally on the sheet that is attached to the appropriate box. This keeps track as you go and means that the students don't have to sift through garbage at the end of the day.
3. At the end of the day the class can take the information they collected from the tally sheets to create graphs of how many items were in each box.
  - a. Each group could have a different type of graph to create (or the groups could create one of each type of graph). Examples include line, circle, bar, and pictograph.
  - b. Graphs should be created on a large paper neatly so they are suitable to display and present to other classes.
4. After creating the graphs, have students post them in the hall.
5. Calculate what percentage of each type of garbage was collected.
6. Students could share their Garbage Graphing with other classes participating in this exercise, either on-line or in another way.

**Suggested Time Line:** 60 minutes

**Materials:**

- 1 black box for paper
- 1 blue box for glass/plastic/metal
- 1 bin for items that can be reused)
- 1 bin for compost (green bin, if available)
- 1 garbage can
- Chart paper
- Coloured pencils, markers, etc.

**Activity:**

1. Organize your garbage for the day into different categories paper, glass/plastic/metal, compost, items that can be reused and garbage.
2. Every time you throw something out, record it on the tally sheet on the front of the bin.
3. At the end of the day total how many tallies you have on each sheet.
4. Create a graph that represents these data. The graph must include a title, names of the group members, and be neat enough to be displayed and viewed by other classes.
5. Calculate the percentage of each type of garbage you have. Record that on your graph.

**Follow-up Questions:**

1. Could your class do better?
2. How are you doing in each of the 4 Rs (reduce, reuse, recycle)?
3. Were there any items in the wrong bin?
4. What do you think about separating their garbage this way?
5. Was it difficult? How could you make it easier?
6. Did you have to think about it?
7. Were there any bins that were overflowing?
8. What happens when the landfill overflows?
9. Did the garbage smell?
10. How did the people sitting close to it feel?
11. What would it be like to live near a landfill? For humans? For animals?
12. Are there any items that you recycle at home that can't be recycled at school?
13. List 3 to 5 items that you could reduce or eliminate so that there is less waste.

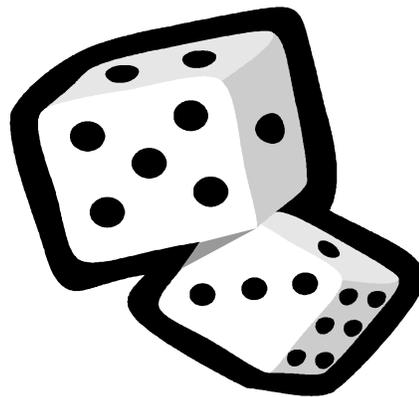
**Classroom Extensions:**

1. The class could follow this system for a week and chart their progress each day on a graph.
2. The school could have a garbage graphing week where each class would participate in garbage separation and graphing and then the classes could post and compare the statistics.
3. The graphs created in this exercise can be used in Activity F.

# Too Close for Comfort

## Grade 4 RETHINK GARBAGE

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### E. GARBAGE BOARD GAME – Examining our Garbage

#### Teacher Notes:

The students will create garbage board games that will make others think about choices made with respect to waste disposal. This is a group activity. Groups of no more than 5 to 6 students will work best. You may want the students to create board games for different grade levels. If so, their game 'rules' will have to be appropriate to that level.

*This activity can be used to enhance the Language curriculum. It can be integrated as a component of the Media Literacy module: using appropriate conventions and forms for communicating to a particular audience.*

**Suggested Time Line:** 45 minutes x 2

#### Materials:

- Bristol board
- Glue
- Construction paper
- Markers
- Magazines or other materials for game piece pictures
- Dice or Templates for spinners

#### Activity:

##### Instructions for Creating Your Garbage Board Game

1. Brainstorm garbage questions that you might want to include in your board game.  
Example:
  - a) Is <name of something> recyclable?
  - b) What should I do with my old newspaper?
  - c) What can I make with this empty egg carton?
  - d) Can <name of something> be collected for composting in the green bin? (or "in my backyard composter?")
2. Once you have 20 (at least! you might want more) questions, create a plan and a rough layout for your game.
3. Draw/write your plan on scrap paper. This should include a layout of your game board and any game pieces you want to use.
4. Decide what grade level your game is for. Create a list of rules that is appropriate for that level.
5. STOP! Your layout must get the teacher's approval before you begin constructing the final product.

6. Begin constructing the board game using the materials provided. Make your game visually appealing. You want others to be attracted to it so they will play it. Remember your game must include:
  - a) All the pieces required to play the game (e.g., dice, cards, etc.).
  - b) Instructions and a rule sheet.
7. Name your Board Game.
8. Have fun playing your game with your group or others.

**Classroom Extensions:**

1. These games can be used in Activity F.
2. The grade 4 class could set up a games afternoon where classes would visit the gym and play their board games.

## Sample Garbage Board Game

**Teacher Notes:** This example comes with construction instructions as well as game instructions. The students will need to create playing instructions for their games. They will be doing the construction of their own game boards and pieces. You may want to share the construction directions with the students.



### Construction:

1. Create your game board design. This can be hand drawn or computer generated. The design for the sample game has not been included; it is a string of 30 squares with entries/questions on each square, a 'park' area for the nature game pieces and four other areas near the game squares (labelled 'Compost', 'Reuse', 'Recycle' and 'Garbage' for the pollution game pieces).
2. Enter your entries/questions in the squares on the game board. (See sample game board entries/questions below.)
3. Colour, mount and laminate (optional) the game board.
4. Cut out the game pieces (see samples below). Store pieces in a container with a lid.
5. Put the pollution game pieces and the nature game pieces in two different containers or bags.
6. Take a die and tape over the numbers 5 and 6 and replace them with the numbers 2 and 3. (This can contain the number of squares moved in each turn.) Alternatively, students might create another mechanism (such as a wheel that is turned) to determine number of spaces moved along their game board.
7. For playing pieces, use different colour bread tags.

### Rules for the Sample Garbage Board Game:

1. No more than 4 players per board game
2. Place the nature game pieces in one pile and the pollution game pieces in another.
3. Roll the die; the person with the highest number goes first. This person rolls the die and moves along the game board the number of spaces that appears on the die.
4. Follow the instructions and/or answer the question on each square that someone lands on. (See sample entries/questions for insertion on the game board squares.)
5. Depending on the result of your square activity, pick a nature piece and place it in the park, or pick a piece of pollution and decide whether to recycle, compost, reuse or garbage.
6. If a player cannot answer a question or answers the question incorrectly, the player misses one turn.
7. Two or more players may share the same game squares. The game is finished when all the players have reached the end and entered the park (at the 'finish' line of the game board).

## Questions/Entries for the Squares on the Sample Garbage Game Board

On each square on the game board, there is a question or a statement. Depending on the response (where one is required), the player gets to select a pollution game piece or a nature game piece. Nature pieces go in the park. Pollution pieces should be placed in the correct area – Compost, Reuse, Recycle, or Garbage. Here are the entries for the 30 squares on the sample game.

1. You composted your vegetable peelings.
  - Take a nature piece
2. You bought recycled paper.
  - Take a nature piece
3. You started vermicomposting in your classroom!
  - Take a nature piece
4. You put a newspaper in the garbage!!! Where should it go?
  - Take a pollution piece
5. You forgot to recycle your tetra-pak!
  - Take a pollution piece
6. You only used one side of the paper.
  - Take a pollution piece
7. What are three ways you can decrease garbage?
  - Take a nature piece
8. You can't find a garbage can so you litter.
  - Take a pollution piece
9. How could you reuse a plastic bag? Give 2 ways
  - Take a pollution piece
10. You helped pick up litter in your neighborhood.
  - Take a nature card
11. Give 2 ways your family could reduce their garbage.
  - Take a nature card
12. What should you think about when you are purchasing an item from the store? Why?
  - Take a pollution card
13. You throw out your clothing when you are done with it. Where should it go instead?
  - Take a pollution card
14. You threw garbage in the river.
  - Take a pollution card
15. Can you recycle Ziploc lunch bags?
  - Take a nature piece

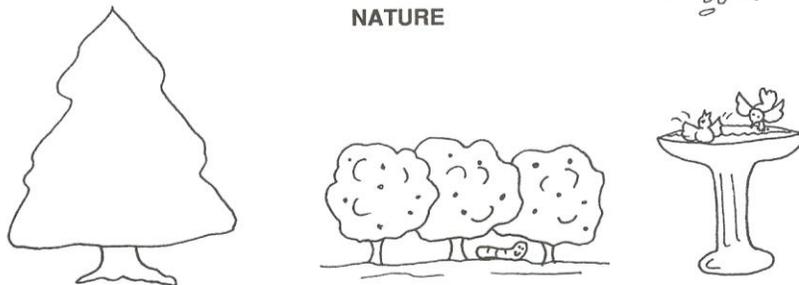
16. You returned your empty bottles to the store? Why?
  - Take a nature piece
17. You use plastic grocery bags when you buy groceries.
  - Take a pollution piece
18. Give two reasons we are worried about garbage.
  - Take a nature piece
19. What happens when you put items into your blue box?
  - Take a nature piece
20. Can you recycle fine paper?
  - Take a nature piece
21. You used a plastic jug to make a bird feeder.
  - Take a nature card.
22. You bring your recycling to the closest depot.
  - Take a nature card
23. How can you reuse a tin can? Give 3 ways.
  - Take a nature piece
24. You picked up garbage at home or in the school yard today.
  - Take a nature piece.
25. You encouraged your parents to start composting at home (or use the green bin)
  - Take a nature piece
26. You use both sides of your paper.
  - Take a nature piece
27. You never pay attention and always throw out items that are recyclable or compostable.
  - Take a pollution piece
28. You send all your old clothing to a used clothing store.
  - Take a nature piece
29. You walked past at least 5 pieces of garbage today without picking them up.
  - Take a pollution piece
30. You ate all your lunch and left no garbage.
  - Take a nature piece
31. You don't want to rinse out your yoghurt cup so you throw it out instead of recycling it.
  - Take a pollution piece

## Game Pieces for the Sample Garbage Board Game

### POLLUTION



### NATURE





# Think Outside the Bin

## Grade 4 RETHINK GARBAGE



### F. A GARBAGE CAMPAIGN – Creating Change

#### Teacher Notes:

This outreach activity has 3 components. Students will discuss how to motivate others to Reduce, Reuse, Recycle and Rethink garbage. They will use some of the items they have created in the other activities to help them encourage others in their school to RETHINK how they look at the waste they create. Students will have a chance to examine the role the media has in encouraging citizens to recycle. They can use a multimedia approach and create a garbage rap and/or garbage posters to entice other students to follow the 4 Rs.

*This activity can be used to enhance the Language curriculum. It can be integrated as a component of the Media Literacy module: purpose and audience; audience responses; responding and evaluating texts.*

**Suggested Time Line:** 45 minutes to create posters or raps  
45 minutes (one period to prepare presentations)  
45 minutes (one period to present to classes)

#### Materials:

- Garbage Graphs (from Activity D)
- Garbage Board Games with all pieces and rules (from Activity E)
- Art paper
- Pastels, crayons, pencil crayons, markers

#### Discussion:

1. Are there ways that we can help change to happen? (By talking about landfills and promoting good waste disposal habits we can start to reduce our impact on the local environment.)
2. Do television, radio, and music play a role in encouraging people to recycle? Should they?

#### Activity:

Each group should create each of the following items. These can be presented in other junior/intermediate classrooms throughout the school or within their own classroom.

1. **Garbage Rap:** Companies create packaging that we are attracted to so that we will buy their product. Each group should create a short rap that will be catchy and get the message about garbage across. What do you want people to know and do about the garbage problem? Here's a sample:

*Clean up, clean up, there's nothing to it  
Save our environment we can do it.  
Return, reduce, recycle, reuse  
That's the key to stop environmental blues  
Blue box and compost are just a start  
Turn old things into creative art.*

The students could put their garbage rap on the morning announcements and get the whole school involved in the garbage reduction campaign.

2. **Posters** (from Activity D): Each student can create a poster. Some of the posters can be left in other classrooms around the school to help people to remember to Reduce, Reuse, Recycle, and Rethink.
  - a. Create an eye-catching poster using a variety of materials of your choice. (Use newspapers, magazines, pastels, crayons, pencil crayons, etc., to create your posters.)
  - b. Your Poster should include a message about the 4 Rs and something students can do to follow the 4 Rs.
  - c. **Creating Change Presentations:** Students will take their Graphing Posters and their rap to one class (each group presents in one room) in their school and make a presentation about garbage. Each presentation should include:
    - A Garbage rap.
    - What are the 4 Rs?
    - What their class did with their garbage graphing and why.
    - How they have decided to try to reduce the garbage in their classroom.
  - d. The students could leave their board games so that the class they are visiting can then have a chance to play them.

**Classroom Extensions:**

1. The garbage raps could be put onto the P.A. system so that the whole school hears them.

**Additional Resources:**

1. *50 simple things Kids can do to Save the Earth.* The earthworks group, Andrews and McMeel, 1990
2. [http://www.earthcarecanada.com/EarthCARE\\_Program/Lessons/4\\_enviro\\_checklist.pdf](http://www.earthcarecanada.com/EarthCARE_Program/Lessons/4_enviro_checklist.pdf)

# Think Outside the Bin

## Grade 4 RETHINK GARBAGE

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### G. TAKE-IT-HOME

#### Teacher Notes:

Garbage is something we do not always think about. The students have been exploring garbage in school and in their class. Now they will have the opportunity to see how they are doing at home. Copy the household garbage scoreboard for each student (please copy double-sided).

**Suggested Time Line:** one evening

#### Materials:

- One Household Garbage Scoreboard for each student

#### Activity:

1. Send a copy of the scoreboard home with each child.
2. Ask them to complete the scoreboard as well as the questions on the back.

#### Follow-up Discussion:

1. What was the reaction in your house to the Home Garbage Survey?
2. Identify 3 ideas you can try at home to realistically improve your household score.
3. Try out your suggestions and report back to the class.

#### Classroom Extensions:

1. Students could collate and graph the data gained from the Household Garbage Sheets. (Individual household information should be kept anonymous.)

## Household Garbage Survey

At school you have been rethinking garbage and examining your choices about how you reduce, reuse, and recycle. Now you have a chance to bring your 'rethinking' home and examine your recycling and waste disposal practices there. Complete the following scoreboard and answer the questions on the back. You may have to ask your parents to help you with some of the information below.

Give Yourself 5 points for each of the following	Give Yourself 3 points for each of the following	Give yourself 1 point for each of the following	Give yourself –5 points for each of the following
1. You don't use disposable products.  2. You use your green bin or have a backyard compost  3. You have a vermi composter  4. You make full use of your blue box  5. You make full use of your black box  6. You buy products that have the least packaging.	1. You recycle empty shampoo bottles  2. You recycle/reuse cardboard toilet paper rolls  3. You have a 'please no flyers' sign on your mailbox  4. You think about waste when you shop  5. You produce less than 1 bag of garbage a week	1. You shop at a bulk food store or the farmer's market  2. You reuse items more than once  3. You use your local library instead of buying books and magazines  4. You recycle fine paper  5. You use cloth shopping bags  6. Everyone in your house uses a reusable lunch bag.	1. You regularly put out more than your limit  2. You do not recycle fine paper  3. You do not always use your blue box  4. When you are done with an item you throw it out instead of passing it on  5. You use Ziplocs and plastic bags instead of reusable containers  6. You don't compost or use the green bin at home
Your score:	Your score:	Your score:	Your score:
Your Total is:			

## Household Garbage Survey (p 2)

1. How many large garbage bags does your family put out each week?
2. How many people are in your family?
3. What types of things does your family put in the blue box?
4. What does your family put into the black box?
5. What does your family put into the backyard composter (or green bin)?
6. Give 5 suggestions on how your family can recycle more effectively.
7. Give 3 suggestions on how your family could reduce the waste that is generated in your home.



# Black, Blue or Green?

## Grade 4 RETHINK GARBAGE

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### H. 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:

3. Ottawa has a new Green Bin program which allows for composting things like food scraps. What is composting? How does it help the environment?
4. 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:

5. Who is responsible for how much garbage goes to the landfill sites?
6. Are there ways you can reduce how much garbage we create?
7. 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:**

4. [www.ottawa.ca/greenbin](http://www.ottawa.ca/greenbin)
5. [www.ottawa.ca/recycling](http://www.ottawa.ca/recycling)