

# Think Outside the Bin

## Grade 5 RETHINK GARBAGE

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### Introduction

This comprehensive package for students at the Grade 5 level explores current garbage issues such as dwindling landfill space and the fact that we are creating more garbage than ever before. After watching the *Talkin' Trash* video, students are given an opportunity to explore ways to deal with too much garbage. Students will learn that by reducing waste 'at the source' (which means bringing fewer items home that are not reusable or recyclable) fewer items will need to be sent to landfill. Each activity is designed to challenge students to RETHINK GARBAGE. Some activities serve as introductions, while others are designed to expand our thinking about excessive waste. This package can be used in its entirety or you can select activities based on your timeline or classroom needs. The value is in providing our students with an opportunity to see the amount of waste that we create, and to think about how they can have an impact on reversing poor practices. Enjoy exploring garbage!

### Activities included in the Grade 5 Curriculum Package

- A. Garbage Graffiti: Students are encouraged to think about what they already know about garbage, reducing, reusing and recycling in this activity.
- B. Alfie Thinks About Garbage: This in-class activity provides an opportunity for students to think about their own waste habits.
- C. Musical Garbage: This is a hands-on activity that encourages students to think about what really needs to be in the garbage bin. They are encouraged to *Think Outside the Bin*, and find other places for waste besides the garbage can, and ultimately the landfill site.
- D. Litterless Lunch: This activity is a great way for students to apply their new way of thinking about garbage. The Litterless Lunch activity provides students with a timeline and a goal to reduce the amount of waste from their daily lunches. A tally of waste is done at the beginning and end of the timeline, to rate the effectiveness of the Litterless Lunch.
- E. Tally Your Cupboards: This take-it-home exercise applies the information students have been thinking about in their class activities. They are to look at the ways that they dispose of packaging from their food items at home. They are encouraged to stretch their thinking to determine ways to reduce the amount of garbage and to increase the use of reusable and recyclable items.
- 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 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 5 package:

### Mathematics

#### Number Sense and Numeration

- read and print in words whole numbers
- represent, compare, and order fractional amounts with like denominators
- solve problems involving the addition, subtraction, and multiplication of whole numbers, using a variety of mental strategies

#### Data Management and Probability

- collect data by conducting a survey or an experiment
- collect and organize discrete or continuous primary data and secondary data and display the data in charts, tables and graphs

*Suggested Activity: Tally Your Cupboards*

### Language Arts

#### Oral Communication

- demonstrate an understanding of the information and ideas in oral texts by summarizing important ideas and citing a variety of supporting details
- make inferences about oral texts using stated and implied ideas in the texts as evidence
- demonstrate an understanding of appropriate speaking behaviour in a variety of situations
- use appropriate words and phrases from the full range of their vocabulary including inclusive and non-discriminatory language, and stylistic devices suited to the purpose, to communicate their meaning accurately and engage the interest of their audience

#### Reading

- extend understanding of texts by connecting the ideas in them to their own knowledge, experience, and insights, to other familiar texts, and to the world around them.

*Suggested Activity: Alfie Thinks About Garbage*

#### Writing

- gather information to support ideas for writing, using a variety of strategies and a range of print and electronic resources

#### Media Literacy

- identify an appropriate form to suit the specific purpose and audience for a media text they plan to create, and explain why it is an appropriate choice
- express opinions about ideas, issues, and/or experiences presented in media texts, and give evidence from the texts to support their opinions

*Suggested Activity: Garbage Graffiti*

## **Science and Technology**

### Energy and Control: Conservation of Energy

- formulate questions about and identify needs and problems related to protection of the natural environment
- compile data gathered through investigation in order to record and present results, using tally charts, tables, and labelled graphs produced by hand or with a computer

*Suggested Activity: Tally Your Cupboards*

## **The Arts**

### Visual Arts

- produce two- and three-dimensional works of art that communicate a range of thoughts, feelings, and ideas for specific purposes and to specific audiences
- identify, in their plan for a work of art, the artistic problem and a number of possible solutions

## **Health and Physical Education**

### Active Participation

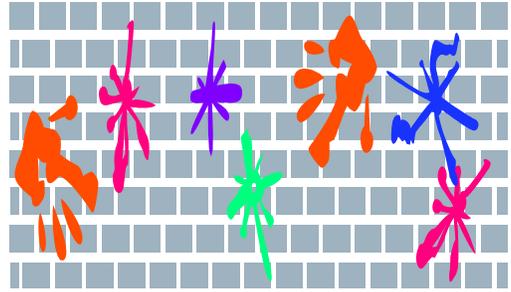
- participate vigorously in all aspects of the program
- improve their fitness levels by participating in sustained moderate to vigorous physical activity
- follow the rules of fair play in games and activities

*Suggested Activity: Musical Garbage*

# Think Outside the Bin

## Grade 5 RETHINK GARBAGE

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### A. GARBAGE GRAFFITI

#### Teacher Notes:

This activity is to be done soon after your class has watched the City of Ottawa video, *Talkin' Trash*. It is designed to be a brainstorm activity, allowing students to think about what they have just seen, as well as begin to think of ways to apply this new thinking to their everyday lives.

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

**Suggested Time Line:** 30 minutes (or 1 period)

#### Materials:

- Large pieces of writing paper
- Writing utensils for each student
- Tape

#### Activity:

The preparation steps are outlined below.

1. Set up stations around the room with large pieces of paper. (Try to reuse items, such as backs of chart paper or large pieces of cardboard, or even areas of the blackboard).
2. Write one of the suggested topics/questions on each station's paper. (See below.)
3. Have students begin at a particular station and rotate around the room at your signal. Encourage students to bring a colourful writing utensil, if available.
4. Each student writes a word or phrase at each station, relating to the written topic/question.
5. At the end, your class will have created several sheets of "Garbage Graffiti" relating to their thoughts on Rethinking Garbage.
6. Display the "Garbage Graffiti" in your own classroom or even the hall, to encourage others to also Rethink Garbage.

## Suggested Topics and Questions

1. Why are landfills necessary?
2. Are there other ways of dealing with our garbage today rather than sending it to the landfill?
3. Why do modern landfills cost so much to build and maintain?
4. Why is rethinking garbage so important?
5. What do you think we will do with our garbage in the future?
6. Do you know what 'reducing at source' means? (Answer: Reducing at source means making an effort to not buy or bring items home that are not reusable, recyclable or compostable. That means they won't go in the garbage and off to the landfill when we're done with them.)
7. Why is reducing at source even more important than recycling?
8. List some things that are NOT garbage.
9. List some ways you can RETHINK GARBAGE.
10. List items that can go in the blue box.
11. List items that can go in the black box.
12. What have you heard about compost?
13. List items that can go into the green bin or backyard composter. (Are there any differences?)
14. Garbage is everyone's problem. (Respond.)
15. What can you do to make a difference in the amount of garbage you create today?

### Classroom Extensions:

You may have students create their own "Garbage Graffiti" topics:

1. Using scrap pieces of paper have students write their topic at the top of the page.
2. Pass the pages around the room, allowing each student to write on each page.
3. This activity will allow students to have their own smaller, individual versions of the class graffiti.

# Think Outside the Bin

## Grade 5 RETHINK GARBAGE

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### B. ALFIE THINKS ABOUT GARBAGE

#### Teacher Notes:

In this activity, students help the character Alfie make decisions relating to garbage. They shadow him through a day, where he has many options to consider rethinking garbage by reducing and reusing first... and then recycling.

*This activity can be used to enhance the Language curriculum. It can be integrated as a component of the Reading module: extending understanding and connecting ideas.*

**Suggested Time Line:** 20 minutes

#### Materials:

- Photocopied handouts of questions and responses (see below)
- Scrap pieces of paper
- Writing utensils

#### Activity:

1. Hand out the quiz on one page (see handout). Please print double-sided.
2. The accompanying responses may also be handed out or you may discuss the responses as a class.

#### Classroom Extensions:

1. You may have the students work in partners and quiz each other, marking their answers on a scrap piece of paper.
2. Students may be challenged to create their own quiz based on a fictional character and their choices about garbage.

#### Additional Resources:

1. The Resourceful Schools Project games and activities, <http://resourcefulschools.org/students.html>
2. Planet Pals, <http://www.planetpals.com/teachers.html>
3. [www.earthcarecanada.com](http://www.earthcarecanada.com) (see the Lessons and Activities for Grade 5 in 'Resources')

## ALFIE THINKS ABOUT GARBAGE

Alfie begins his day the same way every morning. He wakes up to his favourite music, eats breakfast and heads off to school. Yesterday at school, his teacher showed his class the City of Ottawa *Talkin' Trash* video. Alfie has started to think differently about the things he does each day. Today you are going to follow Alfie in his daily routine, and help him in each of the decisions presented. Write your answers on a scrap piece of paper, so you can reuse this page.

1. Alfie is eating apple slices as a last minute snack before heading off to school and decides he wants to finish them on the walk. He:
  - a. sees the plastic baggies on the counter and uses one to pack the apples
  - b. wraps the apple pieces in plastic wrap
  - c. grabs a reusable plastic container to put them in
  
2. At recess, he eats a cheese and cracker snack package. When he is finished he:
  - a. separates the cardboard wrapper from the plastic and puts both in their appropriate recycle bins
  - b. tosses the whole package in the trash
  - c. leaves the package in his lunch bag to worry about later
  
3. Part of Alfie's day is spent daydreaming about the party that is taking place at his house tonight. It's his little sister's 5<sup>th</sup> birthday, and he can't wait. Alfie's mom picks him up at lunch to do some last minute shopping for the birthday party. They stop at a fast food restaurant to eat along the way. When Alfie is finished his meal, his mom wants to get rid of the garbage. She asks him to toss both of their paper bags and the garbage inside into the garbage bin outside the store. Alfie:
  - a. says okay and quickly tosses all of the garbage
  - b. grumbles but grabs the bags and kicks them towards the garbage bin
  - c. thinks about the *Talkin' Trash* video and decides he can recycle the paper bag, so only throws out the wrappers inside, asking his mom if he can save the paper for the recycle bin
  
4. Inside the store, Alfie's mom wants to buy some snacks for the party. She asks him to pick out a snack. He chooses:
  - a. the snack in the flashiest bag
  - b. the snack with the most individual wrappers
  - c. the snack that has the least packaging
  
5. Once back at school, Alfie starts to get thirsty. He's been working hard today. He has a reusable water bottle in his bag, but it's empty. To satisfy his thirst, Alfie:
  - a. walks to his locker to get his water bottle and fills it at the drinking fountain
  - b. uses money from his pocket to buy a bottled water from the vending machine
  - c. uses money from his pocket to buy a pop from the vending machine

6. School is finally over and Alfie is taking the OC Transpo bus home today. He is waiting at the bus stop while drinking orange juice in a can. There is only a garbage can at the bus stop so when he finishes his drink he:
  - a. throws the pop can in the garbage can
  - b. hangs onto it until he sees a recycling bin
  - c. sets it beside the garbage can
  
7. Once at home, Alfie decides to wrap his little sister's gift. He looks in the cupboard and finds all sorts of options. He chooses to:
  - a. reuse some wrapping paper he saved from his birthday
  - b. use the brand new paper on the big cardboard roll
  - c. use a cute little gift bag
  
8. After wrapping his sister's gift, Alfie eats a snack while doing his homework. He has a banana. When he is finished, Alfie:
  - a. throws the banana peel in the garbage can
  - b. puts the peel in his family's green bin or composter
  - c. throws the peel out the window because it is part of Mother Nature

The guests have finally arrived and the party begins. Alfie has had a busy day and he couldn't have done it without you! Check out the decisions you made with him.



## ALFIE THINKS ABOUT GARBAGE - RESPONSES

Now compare your choices to the comments below. Thanks for helping Alfie to make wise decisions.

### Item #1

- a. Plastic baggies tend to end up in the garbage and ultimately the landfill. However, plastic baggies are easy to wash out and reuse.
- b. Plastic wrap is usually only used once and then sent to the garbage. Try to avoid one-time use items.
- c. Reusable plastic containers are the way to go! Absolutely no garbage created. Way to go!

### Item # 2

- a. Way to Rethink Garbage. Just because part of a package goes into the garbage, doesn't mean it all has to. Some parts can be separated and recycled.
- b. Stop and Rethink. Look at all the pieces before you decide to toss them all.
- c. You're going to have to decide what to do with it eventually. You may as well decide right now.

### Item #3

- a. We're glad you listened to your mom, but stop and Rethink. Is it all garbage? Or can some of it be recycled?
- b. Not only are you grumbling, but you're also littering. Don't be a Litterbug.
- c. Way to Rethink Garbage! Separating waste is a great start to sending less garbage to the landfill.

### Item #4

- a. The flashy bag may look good, but once you're done with it, it's just going in the garbage isn't it? Have a look at the other choices.
- b. Individual wrappers create a lot of garbage for only a little bit of food.
- c. The least amount of packaging means the least amount of garbage. Good thinking!

### Item #5

- a. Using a reusable water bottle is a great way to reduce our waste. And you can fill it with free water. Even better!
- b. Bottled water leaves an empty bottle to dispose. It is recyclable. Using a reusable bottle and creating no waste at all is an even better choice.
- c. Pop cans are recyclable, but using a reusable bottle and creating no waste at all is an even better choice.

### Item #6

- a. Pop cans are recyclable. Take it out and wait until you see a recycle bin.
- b. Yah! Separating our waste will bring us one step closer to sending less waste to the landfill.
- c. It seems like you're not throwing it in the garbage, but really you're just littering. Go back and pick it up.

### Item #7

- a. Reusing items is a great idea. That means less waste being created!
- b. It's very nice to use fancy wrapping paper, but some of it isn't even recyclable. Try reusing items whenever you have the option.
- c. Gift bags can be reused. Great option to help keep waste out of our landfills.

**Item #8**

- a. Banana peels are organic waste and compostable. Separating organic waste from garbage helps reduce the amount of waste in our landfills. Organic waste should go into the green bin or composter.
- b. Great job! Composting helps reduce your household waste and save space in our landfills. Compost is also great fertilizer for your garden. Use the green bin and/or your backyard composter whenever you can.
- d. Banana peels—like all fruits and vegetables—are biodegradable. Even though a banana peel on the sidewalk or grass will eventually break down (it can take up to 4 weeks!), in the meantime it is really just **litter**. Don't be a Litterbug. Put compost in its place.



**Classroom Extensions:**

1. Have students pick only items that can be recycled.
2. Have students pick only items that can be composted.
3. Have students pick only items for which they can think of another use (i.e., reuse).
4. Have students pick only items that could easily be reduced, and have them explain their reasoning.
5. Leadership/Stewardship Project: Students may be inspired to take on a Leadership/Stewardship role within the school. Students could set up a “workshop” in an area of the school (gymnasium preferably) and invite classes to come and play a few rounds of the game.
  - a. Divide students into 4 groups (variable depending on class size and size of available area).
  - b. Divide the gymnasium or other available area into four sections to be used as workshop stations (or number equal to the number of groups).
  - c. Hand out the two Musical Garbage Workshops pages (see below) to each group. (Please print double-sided, to allow for only one page hand out per group.)
  - d. Students will be responsible for bringing in their own ‘garbage’ items, setting up their own game, creating a sign to mark their area, and explaining the game to visiting classes.
  - e. Have each group set up the Musical Garbage game in their designated area.
  - f. Invite other classes in the school to sign up for a session and challenge them to RETHINK GARBAGE.

**Additional Resources:**

1. Music Suggestion: Jack Johnson and Friends, *Sing-A-Longs and Lullabies* from the film, *Curious George*, Universal Studios, 2005.
2. [http://www.earthcarecanada.com/earthcare\\_news\\_and\\_events/ocdsb/stittsville.asp](http://www.earthcarecanada.com/earthcare_news_and_events/ocdsb/stittsville.asp)

## Musical Garbage Workshop

As a group, you are to set up your own version of 'Musical Garbage'. Each group will have the opportunity to introduce the game to a different class from the school.



### Tasks

1. Collect your 'garbage' items.
2. Use the following table to create a list of the items and label them with 'Reduce, Reuse, or Recycle, and explain each.
3. Create a sign labelling your Musical Garbage game station.
4. Select an appropriate song to play during the game (preferably having to do with garbage or recycling or the environment).
5. Write an explanation of the game for participants so that they understand what they are to do.
6. Designate a speaker to explain the game to visiting classes.
7. Use the space below and the back of this page to write your group's notes and ideas.



# Think Outside the Bin

## Grade 5 RETHINK GARBAGE

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### D. LITTERLESS LUNCH

#### Teacher Notes:

If you were to have your students look at the contents of their lunch, chances are most items have more packaging than is necessary. The idea of the Litterless Lunch is to reduce the amount of unnecessary packaging and waste that we create from this midday meal.

If your class or school has already introduced the Litterless Lunch, you may choose to use only Part 2 of the following activity.

**Suggested Time Line:** 10-15 minutes (each Part) (45 minutes total)

#### Materials:

- Students' lunches
- Form #1 and Form #2 as handouts

#### Activity:

##### PART 1: Introduction

1. Begin by asking students if they have heard of the Litterless Lunch. (Many schools have adopted this concept).
2. Have students brainstorm possible explanations for a Litterless Lunch.
  - a) What is it?
  - b) Why make litterless lunches?
3. Explain the concept if necessary. The goal of the Litterless Lunch is to reduce unnecessary waste going to our city's landfill sites.

##### PART 2: Your Lunch Today

4. Hand out "Litterless Lunch" Form #1 (print 2 or even 4 per page and cut to size after photocopying).
5. Have students keep all of their waste from lunch.
6. Directly after lunch, students count the number of items going to the garbage can. They also count the number of items that are going to be recycled, composted and reused.
7. Place the Form #1 into an envelope. \*\*

\*\* You may collect all of the forms and place them into one envelope for the entire class. You may also have students make their own envelope from used newspaper and place their forms into their own envelopes.

### PART 3: Your Future Lunch

8. Choose a period of time for your Litterless Lunch implementation. It could be two weeks, one month, two months, or any time determined.
9. After the time period has passed, revisit the number of items that are being thrown in the garbage can, recycled, and reused.
10. Hand out “Litterless Lunch” Form #2 (print 2 or even 4 per page and cut to size after photocopying).
11. Have students keep all of their waste from lunch, and tally items as in Part 2.
12. Once Form #2 has been completed, return Form #1 to each student. Similar to a time capsule, students can now see the difference in the number of items from their lunch being thrown into the garbage can.
13. Use the follow-up questions, by writing them on the board for students to respond in their notebooks.

### **Classroom Extensions:**

1. If students have a good grasp on the Litterless Lunch, the forms and follow-up questions could be used as Bell Work, while students are coming in before announcements and from recess.
2. Have the class collect the totals for Form #1 and Form #2 and prepare a graph to depict the changes. Calculate the percentage changes in the three areas (recycle/compost, reuse, and garbage) counts.
3. Make a class poster on how to pack a Litterless Lunch that meets Canada’s new Food Guide.

### **Additional Resources:**

1. Eco-cycle. <http://www.ecocycle.org/askeco-cycle/20041029.cfm>
2. EarthCARE: [http://www.earthcarecanada.com/EarthCARE\\_News\\_and\\_Events/OCDSB/Mutchmor.asp](http://www.earthcarecanada.com/EarthCARE_News_and_Events/OCDSB/Mutchmor.asp)

## LITTERLESS LUNCH FOLLOW-UP QUESTIONS



1. Did the number of items you throw into the garbage can change? How?
2. Did the number of items you recycle/compost change? How?
3. Did the number of items you reuse change? How?
4. Could you replace some disposable items with reusable items? State which items and how you could replace them with reusable items.
5. Did you notice any unnecessary packaging in your lunch today?
6. What could be done to reduce the amount of unnecessary packaging in our lunches?
7. Why do you think litterless lunches are important?
8. Do you think your lunch can help to make a difference in the amount of unnecessary waste going to our city landfill sites?

# Litterless Lunch

Form #1



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

Date: \_\_\_\_\_

In my lunch today, I have the following number of items that are:

Reusable: \_\_\_\_\_

Recyclable/Compostable: \_\_\_\_\_

Garbage: \_\_\_\_\_

I feel that I can make my lunch more "litterless" by:



# Litterless Lunch

Form #2

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

Date: \_\_\_\_\_

In my lunch today, I have the following number of items that are:

Reusable: \_\_\_\_\_

Recyclable/Compostable: \_\_\_\_\_

Garbage: \_\_\_\_\_

The changes that I have made to make my lunch more “litterless” are as follows:

## LITTERLESS LUNCH



Some Suggestions for a Litterless Lunch:

1. Put your sandwich into a reusable plastic container, rather than plastic wrap or plastic bags.
2. Reuse plastic bags by bringing them home and washing them.
3. Rather than using bottled water, get a reusable water bottle and fill it at the water fountain.
4. Rather than using juice boxes, use a reusable bottle and fill it with juice from your juice jug at home.
5. Resist individually wrapped cookies (that's a lot of waste for just 2 cookies). Put cookies in a reusable container rather than in plastic bags.
6. Put your carrots and other veggies in a reusable container rather than in plastic bags.
7. *Add your own ideas for a litterless lunch here ...*

# Think Outside the Bin

## Grade 5 RETHINK GARBAGE

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### E. TALLY YOUR CUPBOARDS (a take-it-home exercise)

#### Teacher Notes:

This activity allows students to investigate items in their own home. They are encouraged to change any habits that involve throwing recyclables or reusable items into the garbage can, to “Think Outside the Bin”. In the process, those at home may also become aware of the idea of separating waste.

*This activity can be used to enhance the Mathematics or Science and Technology curricula. It can be integrated as a component of the Data Management and Probability module: collecting data and using fractions, or as a scientific investigation within the Conservation of Energy and Resources module.*

**Suggested Time Line:** 10-15 minutes (each Part) (45 minutes total)

#### Materials:

- Tally Your Cupboards Instructions
- Tally Your Cupboards Tally Table
- Tally Your Cupboards Follow-up Questions

#### Activity:

1. There are two handouts for students in this activity (Tally Your Cupboards Instructions, Tally Your Cupboard Tally Table).
2. As the objective of this activity is to raise awareness about the amount of waste we needlessly create, we ask that you print these pages sparingly. You may print double-sided. You may also print 2 pages per sheet, as well as double-sided.
3. Use the follow-up questions (attached) to encourage discussion and development of good strategies for reducing waste.

#### Classroom Extensions:

1. Have students create graphs (bar graphs, line graphs) to represent the number of items that can be recycled and reused in their cupboards at home.

# TALLY YOUR CUPBOARDS Instructions



1. Inform your family that you will be looking at the type of packaging of products in your kitchen cupboards. Be sure to pick a time that will not interfere with other activities in the kitchen (e.g., dinner preparation).
2. Use the handout provided to enter your tallies and information about packaging.
3. First, look at each item and decide how many layers of packaging are involved. Example: Does the bag of cookies in your cupboard have a plastic tray inside? Is the plastic tray also wrapped in plastic foil? Is there also an external bag around the plastic tray and plastic film? If yes, this item has 3 layers of packaging. Fill in the “LAYERS OF PACKAGING” columns in the table provided by marking individual lines.

Example:

# of LAYERS OF PACKAGING		
1	2	3
///	////	/

4. Next, fill in the columns of the table provided labelled “TYPE OF PACKAGING”. Decide if the items are packaged with only one material, or a combination of materials, and mark the columns accordingly.
5. Finally, determine whether the packaging is Reusable, Recyclable, or neither. If it is neither recyclable nor reusable, it is marked as Garbage. Fill in the “DISPOSAL OF PACKAGING” columns.
6. Once you have completed tallying your cupboards, add the number of lines in each column and write the number at the bottom of the table in the TOTAL section.

# TALLY YOUR CUPBOARD Follow-up Questions

1. a) What TYPE OF PACKAGING was most common in your cupboards?  
b) How many of this type did you count? (Write this number as a word.)  
c) Can this type of packaging be reused or recycled?  
d) Write the most common TYPE OF PACKAGING as a fraction of the whole.

Example: If plastic were the most common, the fraction would be:

Number plastic packages

Total number packages

2. a) What TYPE OF PACKAGING was the least common in your cupboards?  
b) How many of this type did you count? (Write this number as a word.)  
c) Can this type of packaging be reused or recycled?  
d) Write the least common TYPE OF PACKAGING as a fraction of the whole.

Example: If metal were the least common, the fraction would be:

Number metal packages

Total number packages

3. a) How many items were GARBAGE? (Write this number as a word.)  
b) If you were to throw this many items into the garbage in about 1 week, use this number to calculate how many items you would throw into the garbage in one month (4 weeks).
4. What fraction of items can be recycled and reused?
5. Did you notice any unnecessary packaging or layers? Explain.
6. What can you do to reduce the amount of disposable packaging in your cupboards?

## TALLY YOUR CUPBOARDS Tally Sheet

Now is your chance to RETHINK GARBAGE in your own home. We know that making a difference in the amount of garbage going to the City's landfill is something we can all do. Read the instructions for the exercise and tally your cupboards to find out how and where we can make a difference in our creation of garbage.



LAYERS OF PACKAGING			TYPE OF PACKAGING						DISPOSAL OF PACKAGING		
1	2	3 or more	Cardboard	Plastic Film	Plastic (as exterior packaging only)	Metal	Cardboard and another material	Plastic and another material	Recyclable	Reusable	Garbage
<b>TOTAL</b>											

# Black, Blue or Green?

## Grade 4 RETHINK GARBAGE

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### 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](http://www.ottawa.ca/greenbin)
2. [www.ottawa.ca/recycling](http://www.ottawa.ca/recycling)