

Garbage Activity




1. PACKAGING SURVEY

Bring a box of cereal, a DVD or CD, a tube of toothpaste and two other items to school with their original packaging still intact. Using the Note-Taking Grid below, examine the packaging of each product.

NOTE-TAKING GRID

ITEM	SIZE OR AMOUNT	VISUAL APPEAL (1-10)	PACKAGING DESCRIPTION			
			LAYERS	FUNCTION	NECESSARY?	DISPOSAL
BREAKFAST CEREAL						
CD/DVD						
TOOTHPASTE						
ANY ITEM						
ANY ITEM						

In the Disposal column, use an **X** if the item is not disposed of easily, a  if the item is incinerated or landfilled and an **R** if the item can be reused or recycled.

As a group compare your notes and discuss your findings. Try to agree on which is the most overpackaged item and which is the most efficiently packaged product in each category, and be able to why.



An example of an overpackaged product can be found on the **Tree of Life posters**.

2. DATA GATHERING, Part I

With one partner, choose an item from your Note-Taking Grid and bring it with you to class. Using the Data Gathering sheets below, analyze the item's packaging.

- a) Check the package to see if it contains recycled materials. Record this in Part I.
- b) Remove the contents from the package.
- c) Weigh the package and find its mass. Record this figure in Part I. Weigh the contents and record its mass in Part I.
- d) Dissect the package one layer at a time. Count the number of distinct layers, the number of different materials and discuss the possible function of each layer. Record this information in Part I.

Data Gathering Sheet (Part I)

Name of Product _____

Recycled Materials _____

Mass of Package _____

Mass of Contents _____

Number of Layers _____

	Description of Each Layer	Reason for the Layer
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

a) DATA GATHERING – PART II

Classify the materials of the package into the following categories: plastic, paper, wood, metal, other. Record these in Part II.

- b) Find the mass for each category of material. Calculate each category as a percentage of the total mass of the package, then as a percentage of the mass of the package and contents combined. Record this information in Part II.

DATA GATHERING SHEET (PART II)

Material Mass	Mass	% of Package Mass	% of Total
Plastic			
Metal			
Paper			
Wood			
Other			
TOTAL			



c) Does the product you analyzed have unnecessary packaging?

d) Identify the components of the package that can be recycled, reused and/or composted, and those that cannot.

e) What do you think are the main reasons the manufacturer chose to package the item the way it did?

f) What words or pictures on the package does the manufacturer use to get people to buy the product? What do you think these words or pictures mean?

3. DESIGN A NEW PACKAGE

Design a new package for the item you chose. The package must be environmentally friendly and less wasteful than the original. It must also meet other packaging needs such as protecting the product and ease of shipping. Refer to the **Tree of Life posters** for more information on the functions of a package.



4. Make a list of suggestions under the following headings for ways in which you can reduce your Garbage Footprint: General, Food, Household Hazardous, Paper, and Plastic.



WALKING LIGHTLY. Chapter 3. Part II

Introductory Worksheet



Find the answers to these questions on the Tree of Life posters.

SEARCH AND FIND: WATER

1. What percentage of the Earth's water is fresh? a) 97%
b) 3 % c) 5% d) 20%
2. Canadians are the world's _____ largest household water consumer.
3. How many litres of water does the average person in Canada use? a) 50 L b) 10 L
c) 1 000 L d) 335 L
4. Name a country that uses almost half of the daily household water that Canada does.

5. Which household activities are among the biggest water consumers? _____

SEARCH AND FIND: TRANSPORTATION

1. What type of transportation do you think leaves the smallest Ecological Footprint?

2. What mode of transportation uses up the most land?
a) fully occupied car travelling 40 kph

- b) car with 1 person travelling 40 kph
c) Bus-full, travelling 40 kph
d) cyclist travelling 10 kph
3. What does B.E.S.T. stand for?
a) Boost Exchange
b) Shrink Travel
c) A better community life for us all
d) all of the above
4. What three Canadian cities have the highest percentage of people using public transit?

5. What percentage of humans do not own cars? a) 8%
b) 92% c) 89% d) 11%

SEARCH AND FIND: ENERGY

1. Per capita, who uses the most energy in the world?

2. The household accounts for what percentage of energy consumed in Canada? a) 35%
b) 18% c) 33%
3. Canadians are the world's _____ users of electricity.
a) largest
b) second largest
c) third largest

4. What uses the most energy in your home?
 - a) lighting
 - b) appliances
 - c) space heating
 - d) water heating

5. Per capita what area of the world uses the most energy?
 - a) North America
 - b) Western Europe
 - c) Central Europe
 - d) China

SEARCH AND FIND: FOOD

1. Which method of preserving foods uses the most amount of energy?
 - a) drying
 - b) canning
 - c) freezing

2. The Five Ns to help us reduce our Food Footprint are:

What does each mean?

3. Which uses the most kg of feed to produce 1 kg of product?
 - a) pork
 - b) beef
 - c) chicken
 - d) turkey

4. The first item listed on a label ingredient means:
 - a) it is the most healthy item
 - b) it is present in the largest quantity

- c) it is alphabetically the first item to appear on the label
5. List five ways food can be processed :

SEARCH AND FIND: GARBAGE

1. Packages are designed to:
 - a) make the product easier to transport and handle
 - b) protect the contents
 - c) make people want to buy the product
 - d) all of the above

2. _____ is the top recycler of paper in the world.

3. _____ produces the most garbage in the world per capita.
 - a) the United States
 - b) Australia
 - c) Canada
 - d) China

4. _____ is an example of packaging that cannot be disposed of easily.
 - a) collapsible metal tubes
 - b) aerosol cans
 - c) aluminum foil base containers
 - d) all of the above

5. How many layers of packaging does a videogame system cartridge have?



Activity Worksheet

Refer to the charts and information on the Tree of Life posters.

1. Why do you think Canadians use so much water, food and energy?

2. Could you live your life without a car? Why or why not?

3. What are some things you can do to lessen your Water Footprint? your Transportation Footprint? your Energy Footprint? your Food Footprint? your Garbage Footprint?

4. If you did some of the suggestions you listed in questions # 3, how might this affect the Canadian economy?

5. Why do you think Canadians produce so much garbage?

6. Do you think that it is necessary to reduce our Ecological Footprint? Why or why not?

Post-Activity Worksheet

1. Per capita, who is the world's largest consumer of water?

2. What household item uses the most water?

3. What is the cheapest and most efficient way of traveling?

4. What does B.E.S.T. mean?

5. Per capita, what country is the world's largest electricity user?

6. List three things you can do to your washing machine to save energy:

7. Puffing, popping and peeling are examples of food...

8. The five food Ns are:

9. What item makes up most of the household garbage we throw away?

10. Per capita, what country produces the most household garbage?

