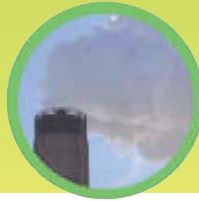
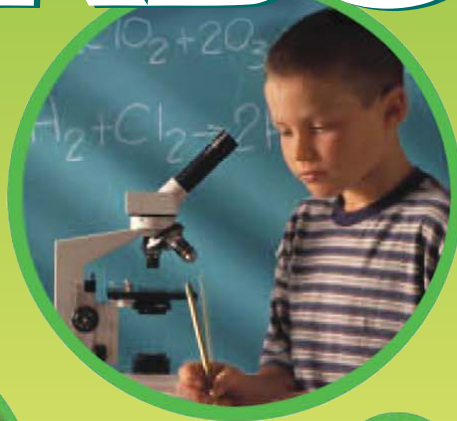


ACTIVITY WORKBOOK



An Introduction to Waste



INTERESTING FACTS

- In Ireland each year 80% of our household waste is sent to landfill
- Each person produces on average 0.4 tonnes of household waste each - that's equivalent to the weight of a horse or polar bear.

What is Waste?

Waste is another name for materials or rubbish we have which we don't want or need any more.



How we deal with our waste has a huge impact on our environment. The waste management hierarchy is often used to describe our waste options. The options towards the top of the hierarchy are the most environmentally friendly.



What is landfill?

A landfill is a place where waste materials are buried. When biodegradable waste is disposed to landfill, it is broken down by bacteria to produce gases and soluble chemicals. The soluble chemicals combine with liquids in the waste (e.g. rainwater) to form landfill leachate.

The gas produced is known as "Landfill Gas" and consists of 50-60% methane and 35-40% carbon dioxide. Methane is highly flammable and is one of the major greenhouse gases responsible for climate change. It has 21 times the global warming capacity of carbon dioxide. In fact, landfills are recognised as one of the most significant man-made sources of methane released into the atmosphere. Landfills threaten our quality of life. They can create problems for local communities, including more traffic, noise, odours, smoke, dust, litter and pests. Ireland is running out of landfill space.

Estimated landfill capacity remaining in Dublin in 2004 was 7 years

What will we do?

Reduce

**THE FIRST STEP TO REDUCING WASTE IS TO TRY TO AVOID IT
BEING PRODUCED IN THE FIRST PLACE.**

Waste Avoidance

Waste Minimisation is at the top of the waste management hierarchy and everyone agrees that this is the best way to deal with waste. The amount of waste we produce can be reduced by developing better shopping habits, such as bringing your own basket or bag to the shop, buying items with less or no packaging and not replacing items until they really need to be replaced. There are a number of steps that we can take to prevent waste being generated. Here are just a few tips. See if you can think of some others yourself:

- Avoid disposable products such as, cling film and aluminium foil.
- Use lunch boxes.
- Use rechargeable batteries.
- Buy large containers of products or refillable containers where possible.
- Buy loose fruit and vegetables instead of pre-packed.
- Buy products such as sauces, cleaning products and washing up liquids in large or refillable containers.
- Send emails instead of letters.
- Encourage your parents to register to pay bills and do their banking online.

Exercise 1

1. Imagine you manage your own supermarket.

List 3 things you can do to reduce the waste caused by the products you sell?

- 1) _____
- 2) _____
- 3) _____

2. List 3 ways you can reduce waste in the home?

- 1) _____
- 2) _____
- 3) _____

3. List 3 ways you can reduce waste in your school?

- 1) _____
- 2) _____
- 3): _____

Reuse

Reuse means using a product again for a second or third time, either for the same purpose or for a different purpose, instead of throwing it away.

BY REUSING NOT ONLY ARE YOU CUTTING DOWN ON WASTE YOU ALSO REDUCE THE AMOUNT OF ENERGY AND MATERIALS IT TAKES TO CREATE A NEW PRODUCT

List 3 ways each of these items can be reused?

1) Glass

- a. _____
- b. _____
- c. _____



2) Plastic bottles

- a. _____
- b. _____
- c. _____

3) Newspaper

- a. _____
- b. _____
- c. _____



By donating used materials to a charity shop not only are you helping people less fortunate than yourselves but you are also helping to reuse that material and prolong its lifespan.

Make a list of things around your household that could be donated to a charity shop?

Waste Re-use Activity

How to make a Money Box House

What you Need

- Small milk carton
- Paper - brown & coloured
- Stapler
- Glue

What you do

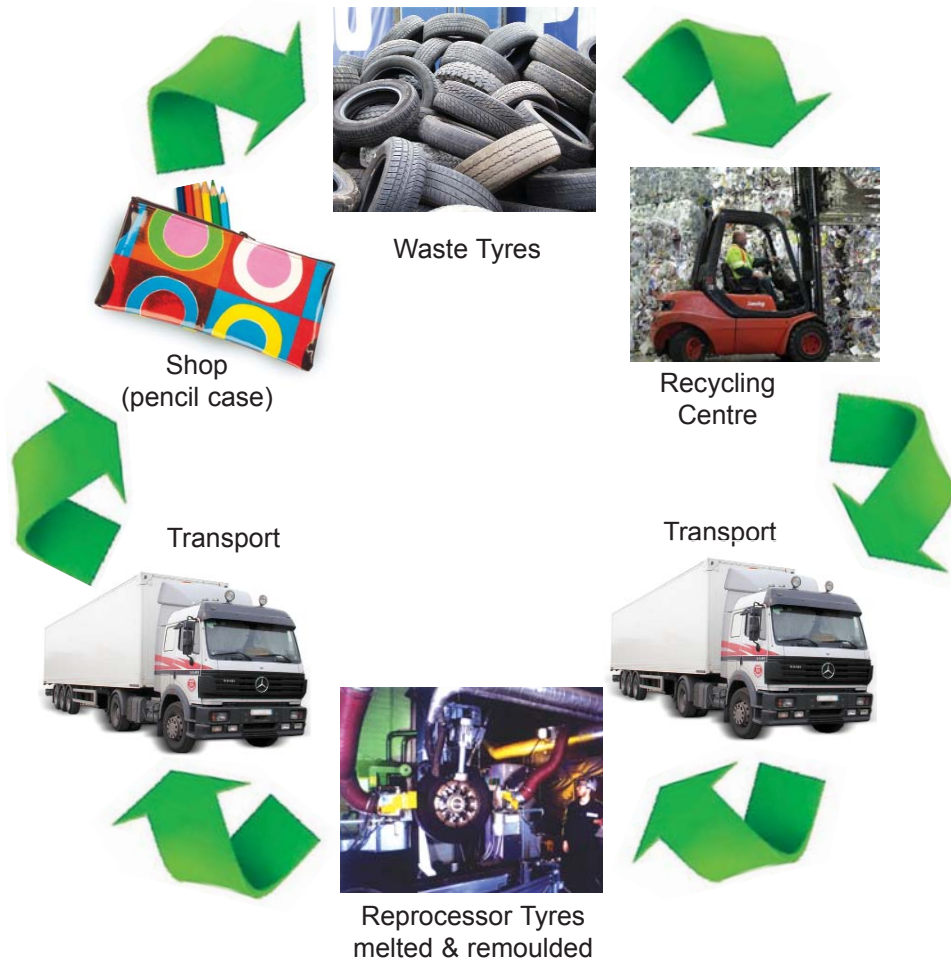
- Cover the carton with brown paper
- Staple the top
- Cut out coloured paper to add house features, such as windows, a door and roof
- Cut a slit in the roof, large enough to fit a two euro coin.



Recycle

Recycling is the process by which waste is transformed into new materials or products. The recycling process involves changing the waste in your recycle bin, or those you bring to a bring bank, into raw materials to create new products.

Stages in the Recycling Process



INTERESTING FACT:

Recycling reduces the demand for raw materials and energy. This is important, because a lot of the materials and energy we use to create new products cannot be replaced. If we don't stop using these resources eventually they will run out.

The recycling process starts when you dispose of your waste in a recycle bin and is completed when you buy a recycled product in the shop.

Recycling Glass

Glass is a valuable material and if we recycle our reward will be a cleaner world. Glass is used to package many food products and makes up about five percent of the municipal solid waste stream by weight. After reduction, such as using less glass to make a glass jar, and reuse, the best way to deal with glass waste is recycling.

Bottle banks are found in many supermarket car parks and local authority areas and usually have separate compartments for clear, green and brown glass. This glass is collected and taken to a recycling plant. At the plant glass is broken up into smaller pieces called cullet. The broken pieces are crushed, sorted, and cleaned. They are then mixed with other raw materials and melted (at temperatures up to 2,700°F) to make new glass.

Using recycled glass to make new glass products requires 40 percent less energy than making it from all new materials. It saves energy because crushed glass, melts at a lower temperature than the raw materials used to make glass.

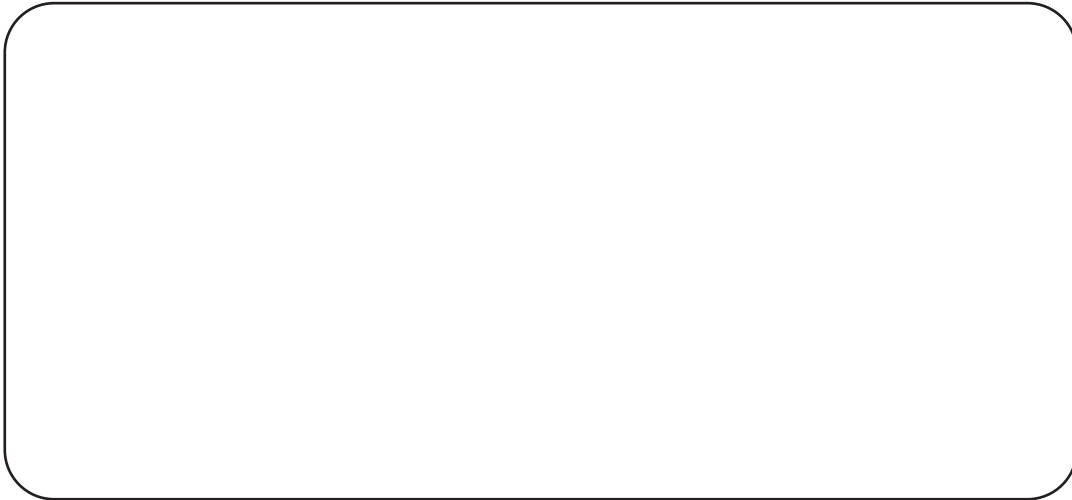
INTERESTING FACT:

Recycled glass uses 40 percent less energy than making glass from all new materials. Today almost 22 percent of the glass we produce is recycled.

Exercise

Design and name a container (Bin or Bottle Bank) that will encourage people to recycle their used jars and bottles.

My Design



The name for my container design is _____

Write some rules below to help people to use this container.

- _____
- _____
- _____



TREE

DE-BARKING

CHIPPING

Paper



PULPING

PAPER MAKING

Papermaking generally uses a natural, renewable resource - trees!

What is Paper?

Paper is made up of layers of vegetable fibres in sheet form. If you tear a piece of paper you will see a number of very small 'whiskers' sticking out. These are the fibres, they are very small in size (not much more than a millimetre in length) and there are millions of them in any piece of paper. The fibres are made from Cellulose.

Trees are the main source of cellulose fibre (or woodpulp). Besides woodpulp, paper can also be made from other materials such as cotton, flax, hemp and straw.

Woodpulp is the soft, spongy part of a tree. Lignin is the glue that holds a tree together. Lignin is removed from the wood fibres and other wood parts in a chemical and mechanical process called PULPING.

WHY DO NEWSPAPERS TURN YELLOW?

Lignin is usually left in newsprint, since newspapers are only meant to last a day or so. Lignin turns yellow and brittle when it's exposed to light. Lignin is normally removed from high grade paper for making books and cards, to stop this happening.

After pulping, paper is brown in colour. The pulp is then cleaned screened, pressed, dried and smoothed in the paper mill. High quality papers are whitened with chlorine bleach and sometimes coated with clays and adhesives to give them a glossy finish. Paper mills use lots and lots of energy to produce paper.

INTERESTING FACT :

Almost ¼ of all household and schools waste and ½ of all commercial waste in Ireland is paper.

Recycling Paper

Recycled paper is a very important source of fibre for the papermaking industry. Recycled paper is collected, sorted, graded and transported to the mills where further processes are carried out to remove unsuitable materials e.g. paperclips, staples and plastic. It is then broken down into pulp. Sometimes printing ink is removed in a process called de-inking. The pulp is then used to make paper in the normal manner.

A ton of paper made from recycled fibres instead of trees saves....



26,000 litres of water

17-31 trees

4,000 KWh of electricity

27 Kg of air pollutants

Paper recycling is important for saving trees, for reducing pollutants and for protecting wildlife.

Exercise

Name 3 things car tyres can be recycled into?

1) _____ 2) _____ 3) _____

Name 3 things glass can be recycled into?

1) _____ 2) _____ 3) _____

Name 3 things paper can be recycled into?

1) _____ 2) _____ 3) _____

Give 3 advantages of recycling

1) _____

2) _____

3) _____

Which of the items listed below can be recycled in Ireland?

Write "Yes" or "No" beside each item.

Contents of Bag:

Packaging from fruit _____

Cereal Box _____

Tin cans _____

Aluminium cans _____

Crisp bags _____

Reams of paper (printed on one side) _____

Plastic bottles _____

Tetra paks _____

Batteries _____

Sweet wrappers and crisp packets _____

Tea bags _____

Fruit peels _____

Glass Bottle _____

Newspapers _____

Plastic packaging with grade 5 or 6 _____

Recycling Wordsearch

20 words are hidden within the puzzle in any direction.
See how many YOU can find !

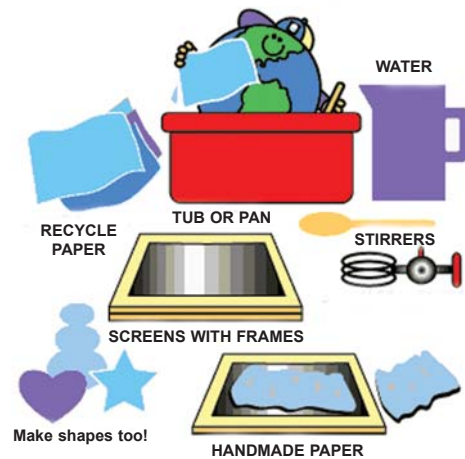
M K C E C F R P C F H S E S P
J V U B C H E E P C O L S P W
V W T U B F C M T P T Y Q S U
U S G C O T I L G T E C Q A V
Z Z D O O W P C O J I V T M R
V V D S K N N B M T Y L U I L
W I O X S X T O S A H I V P K
H O Q B M A G A Z I N E S L C
S J S A N D L K I I R C S O X
M X N S I P Z G M N V W N W N
Q A Y R E S O U R C E S T Q B
P Y X G N I L C Y C E R O D C
K B R E P A P W J R E T A W V
P U E U J U C X V E C H E V C
A T X G W H O E S B U J O H Y

Words

Aluminium	Magazines
Books	Paper
Bottle	Plastic
Can	Cardboard
Clothes	Recycling
Conserve	Resources
Container	River
Food	Trees
Glass	Water
Litter	Wood

Paper Making

This paper making experiment will help you recycle some waste paper from around your house or school such as: envelopes, writing paper, leftover gift wrap or other types of paper.



1. Materials You Need: - (Apparatus)

1. Two plastic basins
2. Waste paper
3. Water
4. One food processor
5. Wooden frames (you can buy a standard frame or make one)
6. Polyester fleece
7. Stapler
8. Old towels
9. Optional, thread, glitter, flowers, thin leaves, pine needles, potato or carrot peel...be creative here.
10. Plastic sheets (A5 size)

2. Preparation: (Method)

1. Half fill the food processor jug and the two basins with water.
2. Make your own wooden frames using four pieces of wood, a stapler and a piece of polyester fleece.
3. Put all materials out on a table.

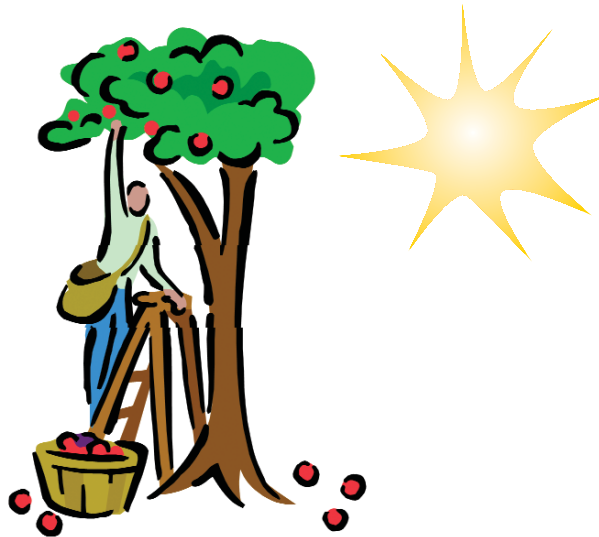
3. Process involved:

1. Take several pieces of paper and tear into small pieces.
2. Put the pieces into the food processor, which is half full of water, and leave it to sit for 10 minutes.
3. Blend the soaked paper into a pulp. Mix at half speed until smooth, until it resembles thick soup. The thicker the mixture, the thicker your paper will be.
4. Pour the pulp from the food processor into the two basins.
5. Get two wooden frames, one with fleece attached on the bottom. Place a piece of fleece between the two.
6. Slide the wooden frame to the bottom of the basin and shake it from side to side to distribute the pulp evenly on the frame until it makes a sheet of paper.
7. Lift the frame straight out and hold the wooden frame over the basin so that any extra water can drain off.
8. Place the frames horizontally and let it drip dry.
9. Turn the paper out of the frame onto a piece of plastic.
10. Dry any excess water from the paper using a sponge.
11. Remove the fleece from the paper.
12. Leave the paper to dry.

Workshop One

Composting

Composting is the term given to the natural process by which plant and animal matter is broken down into a rich, dark, soil-like material (compost) which can be added to a garden to help plants grow. Composting is a great way to help reduce the amount of waste going to landfill. Composting is the natural process by which the earth recycles nutrients and produces a valuable fertiliser. Grass, leaves, paper and some types of food can naturally decay and turn into compost.



Taking the example of an apple tree, the sun provides energy for the apple tree to grow, the tree uses nutrients (released from decomposing matter such as leaves and apples) and water from the soil to produce new apples. A lot of recycling can be done at home by composting. Most types of animal and vegetable waste can be composted, the greater the variety the better the compost.

Composting at Home

Just as nature recycles apples and leaves and plants in the forest which decompose into nutrients to feed the forest plants, you too can recycle leaves and other plant materials at home or school by setting up a compost bin.

1. Choosing a Site

Select a good spot to set up your bin. It should be convenient to reach with plenty of room around it, in your garden or in a back corner of the school yard. Ideally, a compost bin should be sited on free draining soil, allowing easy movement of organisms between the bin and the soil. It is a good idea to locate the compost bin where the sun can shine on it as the warmth will help the process.



2. Choosing the right ingredients.

Compost is made by the DECOMPOSING MICRO-ORGANISMS that live in the soil and waste food. Like baking a cake you need to make sure you have all the ingredients.

The micro-organisms that recycle leaves and other plant parts need a good even mix of brown material/waste and green waste to feed on. They also need air and water to live and work. Put all this together and in time you will have compost!

- Brown material/waste is dead, dried plant parts like leaves and pine needles. Brown waste is high in the element carbon.
- Green waste is fresh, living parts like grass clippings, kitchen vegetable scraps, weeds and other plants. Green material/waste is high in the element nitrogen.

Compost Ingredients

1. Air
2. Water
3. Brown material/waste
4. Green material/waste

For example:

GREEN	BROWN
Fruit	Dead Leaves
Raw Vegetables	Twigs
Fresh Leaves	Newspaper
Grass Cuttings	Straw/Hay
Kitchen Scraps	Dried Grass
Tea leaves	Hedge clippings
Vegetable peelings	Egg Shells
Animal Manure from non-carnivores (sheep, cattle, horses, rabbits)	Sawdust and wood shavings



Heaters and Chompers

Composting is a natural two stage process that converts organic waste into a valuable material for the garden. The first stage is the **Heaters**, the bacteria and fungi. They utilise the softer waste food. A well made compost heap should generate a heat that reaches 60°C. This enables the heaters to get to work.

After 4-6 weeks it is the Chompers turn, which are the worms, beetles and woodlice. They consume tougher material along with the waste left by heaters, producing a damp rich compost.

Handy Hint

Don't use meat and milk products because pets and other animals may dig them out of your compost bin. Also don't use diseased garden plants. They can spread disease back into the garden later when you use the compost.

3. How to make good compost.

Separate your organic kitchen waste and garden waste from all other waste (that will not decompose). Generally add equal amounts of Brown and Green waste/material - too much of one or the other and you won't make good compost. Alternate layers of green and brown material in the compost bin as the more varied the ingredients, the better the compost will be.

Chop or shred waste if possible as it breaks down quicker. It is important that your compost heap is not too wet and not too dry. If too much wet material such as coffee grinds and tea bags are added it will restrict the amount of air in the heap, slow up the process and lead to odours.

Mix regularly and wait. Tiny micro-organisms (that you cannot see without a microscope) go to work breaking down the organic matter into humus. As the compost cools down, you may see larger organisms such as millipedes, earthworms and others. Compost is teeming with living things!

DO NOT add to your Compost

- Meat, Chicken and fish leftovers
- Manure from meat eating animals such as dogs & cats
- Weeds
- Coal & Peat ashes
- Glossy magazines
- Large woody material
- Chemically treated garden waste
- Diseased Plants
- Disposable nappies

Handy Hint

If you sprinkle a shovel full of soil or compost into the bin this will speed the process up by adding extra micro-organisms to the bin.

Exercise on Composting

What waste can be put into a compost bin? (Please tick the correct box)

Waste	Yes please	No thanks
Vegetable Peeling & Fruit scraps		
Torn or shredded cardboard/paper		
Glossy Paper		
Grass Cuttings		
Leaves		
Raw and cooked meats, bones		
Poultry and Fish		
Dog and Cat litter		
Diseased Plants		
Sawdust & Wood shavings from diseased plants		
Tea bags and coffee grounds		
Egg Shells		
Cooking oils and fats		
Plastic		

Action 1: Positioning the Container:

Suggest a location for a compost bin at your school, and explain why you would locate it here.



Action 2: Filling the Compost Bin:

Give 4 examples of "Browns"

- 1) _____
- 2) _____
- 3) _____
- 4) _____

Give 4 examples of "Greens"

- 1) _____
- 2) _____
- 3) _____
- 4) _____



Action 3: List 4 useful tips for making good compost

- 1) _____
- 2) _____
- 3) _____
- 4) _____

Circle the correct answer.

1. If you put in five buckets of green waste/material into your compost bin, how much brown waste/material should you add?
 - a) Two
 - b) Three
 - c) Five

2. Most micro-organisms cannot be seen with a
 - a) Telescope
 - b) Periscope
 - c) Microscope

3. Which of these is NOT true about micro-organisms?
 - a) They are all harmful
 - b) They feed and grow
 - c) They reproduce

4. Which of these micro-organisms are useful?
 - a) Bacteria that eats leaves
 - b) Salmonella
 - c) Chicken pox virus

Activity

After your visit to the in-vessel composting system please answer the following questions.

What does the composter look like?

Why is it different to a home composter?

Why can you put meat in this composter?

How many chambers are in the composter?

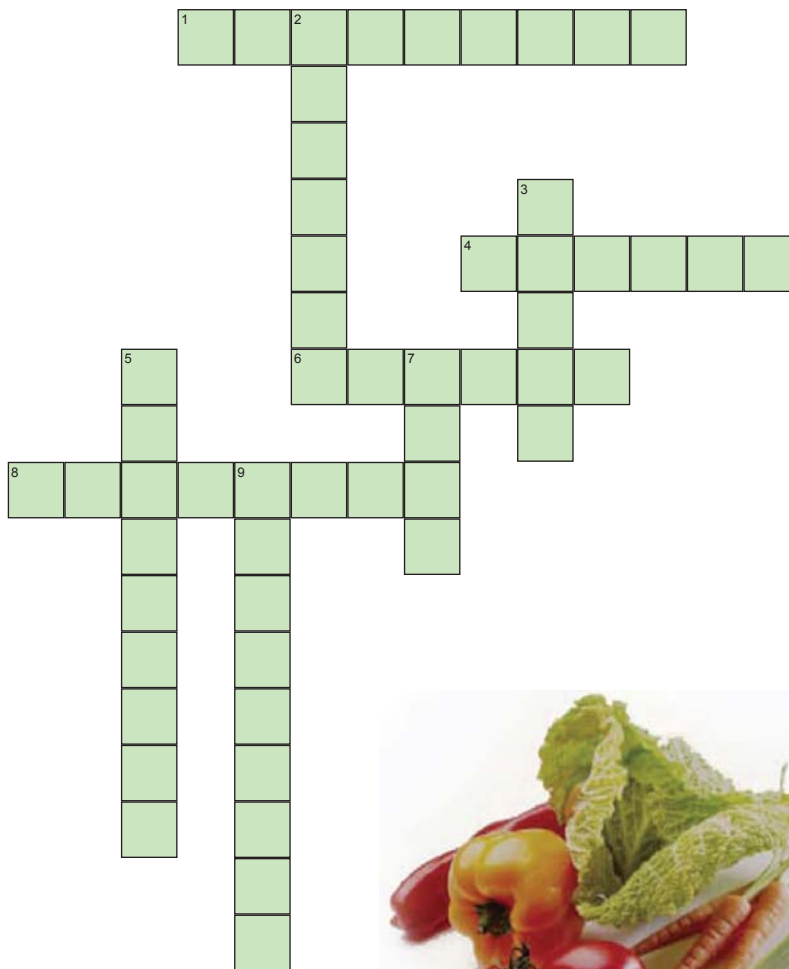
What happens food as it goes through the composter?

What temperature was composter at?

Describe what the compost looks like when it is ready?

How do you know when waste is fully composted?

Composting Crossword



Across

1. Compost is rich in ----- (9)
4. Speeds up the composting process (6)
6. The quickest season for the composting process (6)
8. Tiny living organisms (8)

Down

2. Good for composting (7)
3. You can read or write on this (5)
5. Another word for rotting (9)
7. Bad for composting (4)
9. This creature can speed up the composting process (9)

Life cycle of a plant

SEED



GERMINATION



With water, the right temperature and the right location (e.g. soil) the seed begins to make a new plant

GROWTH



Stems and Roots
Stems put up towards the light, leaves unfold to take more sunlight and branches appear
Roots push down to anchor the new plants while they take up minerals and water from the soil

FLOWERS

Many plants produce flowers



POLLINATION

Flowers are pollinated in various ways- by bees and other animals or even by the wind. At the base of each flower seeds are formed



How to set a seed planting

Fill in the parts of the flower below:



What are the key stages in potting a small seedling plant?

- 1) _____
- 2) _____
- 3) _____
- 4) _____

Match the following terms

Term	Explanation
Stems	Help to hold plants in place
Germination	Plants make food in these
Leaves	Water and food move through
Photosynthesis	When the seeds start growing
Evergreens	Plants use energy in sunlight
Deciduous	Loose their leaves for part of the year
Roots	Keep their leaves

Experiment

Compost Trial

You will need - (Apparatus)

Four pots or patch of soil separated into four sections (as shown in figure 1).

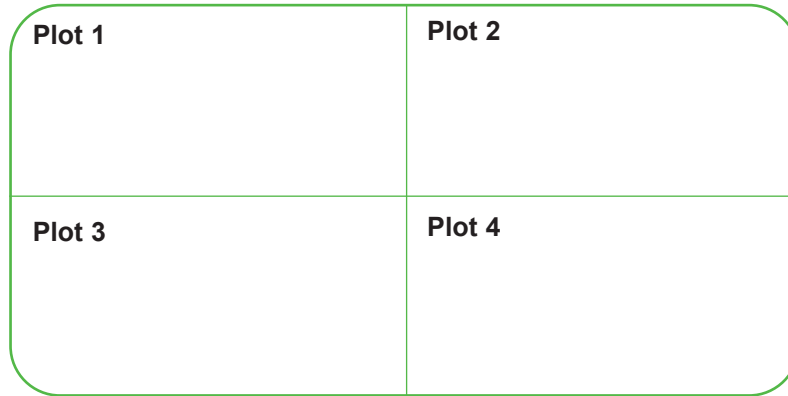


Figure 1

Method

Using the mixtures of soil and compost listed in the box below, plant 15 lettuce seeds on each of the four separate plots.

Over a 5-day period, examine and observe which mixture results in greater growth.



Soil	Compost %
4 parts soil	0 compost
3 parts soil	1 part compost
2 parts soil	2 parts compost
1 parts soil	3 parts compost

What conclusions can you make from this observation?

Workshop Two

Recycling Centre

Many household products can be recycled today. You can bring bottles, cans and clothes to Recycling Centres and also buy recycled goods. This is crucial for the long-term success of recycling.

Recycling Centres (also known as Civic Amenity Sites) accept a wide range of goods, including paper, card, plastic, aluminium, glass, etc. Which varies from local authority to local authority. Some counties have small charges for recycling. Items accepted can also include fridges, freezers and other white electric items, smaller electronic items, computers, furniture, fluorescent bulbs etc.

Some Recycling Centres also accept household hazardous waste such as waste oil, batteries, paints, bleach etc. It is extremely important that you do not dispose of such hazardous waste in your normal household rubbish. If you do it will end up in landfill and produce toxic leachate and gases.



Beside each of the recyclable materials listed below, write down what preparation is required before taking them to a recycling centre. The first two are complete

Item	Preparation before recycling
Plastic bottles	Remove caps/corks, rinse out and crush
Glass bottles and jars	Remove caps and rinse out
Household hazardous waste	
Green waste	
Aluminium cans	
Steel cans	
Tetrapaks	
Cardboard	
Paper/newspaper/magazines	

Materials in the Recycling Centre

Waste materials that can be brought to a recycling centre have many characteristics.

Examples of materials include metals, plastics, glass, fabric and rubber.

Can you name 3 more types of materials?

--	--	--

Materials can exist in various states: Solid, Liquid or Gas.

For example - Water can exist as a solid, a liquid or a gas depending on the temperature.

Below 0°C water freezes to become ice

Above 0°C it melts to become water

Above 100°C it boils and evaporates to become steam.

Can you name another substance that exists in various states? _____

Material Characteristics

A characteristic is a particular feature of a material. Characteristics are used to describe materials. Some characteristics and their meanings are given below

- Flexible: Can be bent
- Brittle - Easily broken
- Waterproof: Impervious to water (water doesn't soak into it)
- Transparent: Can be seen through
- Opaque - The opposite of transparent (unable to see through)
- Dense - Closely compacted, feels heavy
- Permeable - Capable of being saturated or penetrated
- Soluble - Will dissolve in liquid
- Solid - Firm and stable

Exercise - Defining the characteristics of materials

Look at the contents of the Reusit family bin and complete the table below.

Smarties packet is given as an example.

Name	Material	Characteristic
Smarties packet	Cardboard	Opaque
Smarties lid	Plastic	Waterproof

Materials Quiz

1. Discuss each of the following materials

- | | | | |
|-----------------|-----------|--------------------|------------|
| a). Metal | b). Paper | c). Fabric | d). Rubber |
| Is it flexible? | | Is it waterproof? | |
| Is it strong? | | Is it transparent? | |

2. Which of these materials is a natural product ?

- a) Wood
- b) Paper
- c) Plastic

3. Which of these materials comes from an animal?

- a) Natural rubber
- b) Cotton
- c) Wool

4. Which of these things is not found naturally but is found made by changing a natural material?

- a) Glass
- b) Chalk
- c) Clay

5. What happens when you put a bowl of boiling water in a freezer overnight?

- a) It turns to steam
- b) It turns to ice
- c) Nothing. It stays the same

6. All of these things are made of wood, but which has not been shaped or polished?

- a) A wooden spoon
- b) A log fallen from a tree
- c) A wooden ruler

7. Which of these could you easily squash with your hands?

- a) A metal spoon
- b) A wooden toy
- c) A soft rubber ball

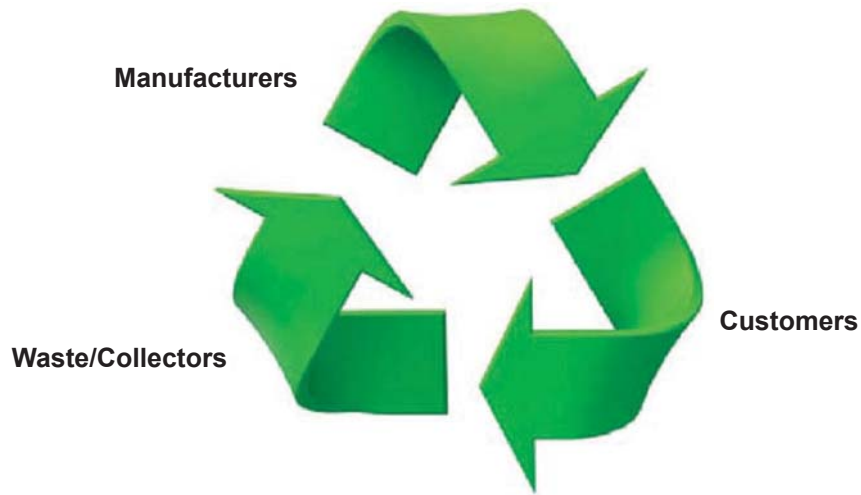
8. What is paper made from

- a) Wood
- b) Plastic
- c) Rock

Group Task

Find out where paper, glass, cans and cardboard can be brought to in your area for recycling. Create a map showing recycling centres and bottle banks in the local area and put it up in your school.

The Recycling Loop



Sort out your Rubbish:

1. Check the rubbish being thrown out either in school or at home. Fill out the table below by putting the rubbish (e.g. paper, food scraps) in the first column and ticking which of the five classifications the rubbish fits.

Type of rubbish	Recyclable	Non-Recyclable	Re-usable	Packing	Bio degradable

2. Over one day in school, divide the rubbish, keeping out of the bin anything that could be recycled, is bio-degradable or could be reused. Did this exercise reduce the amount of rubbish going into the bin?

Workshop Three

Furniture Recycling Scheme:



WHY REUSE / RECYCLE FURNITURE?

Many unwanted items of furniture are often thrown out before the end of their useful life and usually end up in landfill or are dumped illegally - we call this "fly tipping".



It is estimated that the current remaining landfill capacity in Ireland is 8 years. However, many pieces of furniture may only have a small fault, such as a wonky leg or damaged surface, and with some care and repair would be suitable for reuse.

Many items of furniture are made from wood, which comes from trees. By reusing and repairing old furniture we reduce the number of trees that have to be cut down. Trees are also used for timber to build our houses and schools and to make paper. All the books that you read and even this fact sheet started life as a tree.

INTERESTING FACTS ABOUT TREES

- The ancient bristlecone pines (*Pinus longaeva*) in California, Utah and Colorado are known to live more than 4,000 years. The average tree in an urban/city area has a life expectancy of only 8 years.
- A mature oak tree can draw up to 50 or more 200 litres of water per day. Trees take up water through their root system. Some of the water evaporates from the leaves in a process called transpiration.
- 1 out of 4 ingredients in our medicine is from rainforest plants. An area of a rainforest the size of a football field is being cut down each second.
- A single tree produces approximately 260 pounds of oxygen per year. Trees also help to filter dust and pollution. A single row of trees can reduce street dust in the air by 25%
- Trees produce food in the leaves by photosynthesis, taking carbon dioxide from the atmosphere, combining it with water and the energy of sunlight. This food which forms the beginning of the food chain is essential for all other forms of life.
- Ireland has fewer trees than any other country in Europe. Our forest cover is approximately 6% of the land area compared with over 20% for the rest of Europe. 60% of our domestic timber needs are currently supplied from Irish forests.
- Ireland has a variety of native trees including Alder, Ash, Scots Pine, Wild Cherry, Silver Birch, Hawthorn, Holly.

**How many native species of tree are there in Ireland?
Can you name five?**

Repairing furniture prevents it being sent to landfill. Wood can also be recycled and made into many new things, such as:

- Composting agent - sawdust & chipped wood can be used in a compost bin to help decomposer.
- Bedding for animals - untreated wood can be used for bedding.
- Mulch - can be used to prevent soil erosion, enrich soil & help reduce water loss.

Activity - Make a boat

In this activity you will, assisted by a qualified carpenter, make a boat out of recycled furniture or waste wood (off cuts).

You will need

- wood, (3 pieces from the furniture recycling project)
- wood glue
- sandpaper/block
- ruler
- pencil
- paint brushes
- mallet/hammer

Method -

- a) Sand three pieces of wood
- b) Join pieces together to construct basic wood model
- c) Paint.

Test out the boat - Does it float ?
Why?

Exercise

Answer the following questions

- Where does the wood come from?
- How many parts do we have for our model?
- How are the different shapes made or cut?
- How do you smooth the pieces of wood?
- What is used to fix the pieces together?
- How do the pieces stay together?
- What do we use to colour the boat?
- Why did you choose those colours?
- What does your model look like?
- Why is it shaped in such a way?
- Does it float?

Notes





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Notes



