

## 2. Energy Resources

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### \* Book Manufacturing Resources & Raw Material -

- Wood fiber from sawmill, recycled newspaper, some vegetable matter and recycled cloth. Coniferous trees such as spruce and fir, cellulose fibers, "Softwood". Deciduous trees are called "hardwood".
- Bamboo has been used for paper pulp, as has straw and sugarcane.
- Most paper is made by a mechanical or chemical process. Hemp and jute fibers are commonly used for textile and rope making, but they can also be used for paper. Some high grade cigarette paper is made from flax.
- Cotton and linen rags are used in fine-grade papers such as letterhead and resume paper and for bank notes and security certification. The rags are usually cuttings and waste from textile and garment mills. The rags must be cut and cleaned, boiled and beaten before they can be used by paper mill.
- Other materials used in paper manufacture include bleaches and dyes, fillers such as chalk, clay, or titanium oxide, and sizing such as resin, gum and starch.



## \* Classification of Resource

Renewable Resource	Non-Renewable Resource
<p>1] Wood and Tree related material</p> <p>Wood Fibers, recycled newspaper, some vegetable matter, and recycled cloth.</p> <p>Coniferous trees, cellulose fibers, bamboo, hemp, and jute fibers, Cotton and linen bags.</p>	<p>Chemical and Solid waste</p> <p>Bleaches and dyes, fillers such as chalk, clay, or titanium oxide, and pigments.</p> <p>Such as wax, gum, and starch.</p>

## \* Ways to reduce your waste

### 1] Recycling

- reuse your plastic bags and container
- buy items in bulk and avoid packaging you don't need.
- sell, exchange or donate unwanted furniture and goods.
- avoid disposable - take your own reusable cup or drink bottle.
- buy items loose and use refills.



## 2] Product stewardship

Responsible manufacturers may take items back once you have finished with them.  
Donate your unwanted good  
These website will help you with donating your goods:

A] Freecycle

B] Donate NZ

C] ASKshare Give

D] Waste education programmes and resources

E] Transfer Status

F] Reguler Director website

G]

## 3] Food and garden waste

- Food and garden waste currently make up around 50 per cent of an average household rubbish, yet it could be put to a range of domestic and commercial uses.

## 4] Reduce your Food waste

- It is estimated that we throw away one-third of all fruit and vegetable we buy. We can all take simple steps to reduce this waste.
- Start by buying only as much as fresh produce as you need.
- If you are a business, donate your leftover food to a charity or food redistribution network.



## 5) Composting Cures

- Composting is nature's way of recycling and helps to reduce the amount of waste we put out for rubbish collection.

## 6) What else can you do?

- Mulch your lawn Clipping and woody waste
- Sign up to a green waste Collection Company. Garden waste will not be collected in the regular rubbish collection.
- Recycle your grass Clipping by leaving them on the lawn after mowing, to return vital nutrient to the Soil. This retains moisture, reduces the number of times you mow and the time it takes to mow. Only cut the top third of the grass each time and consider replanting sections of your lawn with slow growing native groundcover.
- repair or donate
- find out if there is a take back scheme on manufacturer's website.
- ask when you next purchase a TV if the brand provides end-of-life recycling as a part of purchase.

## 7) Electronic Waste

- Electronic waste, refers to anything with a battery or plug. Valuable material can be recovered from waste or recycled into new products.



- Don't put e-waste in your inorganic collection as it will go straight to landfill. IF possible try to upgrade.

- list of energy source utilized everyday in life.

a) Petroleum Power

b) Food Calories

c) King Coal

d) Renewable energy sources

e) All charged up things: Computer, games, calculators, etc.

### \* Saving Energy Sources Everyday

#### 1) More Environmentally Friendly Travel:

The simplest solution to reduce energy consumption in the transport sector is to reduce car trips as much as possible.

5 tips to reduce your car's fuel consumption

- Combine journey and use shortest roads

- Don't overload the car

- Switch off the engine if you stop for longer than 20 seconds.

- Drive slowly and carefully and avoid sudden braking

- Check your tire pressure regularly



## 2) Thinking green at home

Heating accounts for 65% energy consumption in the home. There are number of simple ways to reduce your electricity spend on heating.

To avoid overusing on air-conditioning and still stay cool, keep these tips in mind.

- Shutters should be closed and blinds and curtain drawn during hot summer days.

- Air your house after dark.

Apart from lighting, there are other things you can do to reduce energy costs:

- Don't leave TV, stereo system and computers on standby by switching them off you can save up to 10% in electricity costs!

- In Kitchens, use a lid when cooking. Boiling water in a covered pot, or kettle require 4 times less energy than boiling it in an uncovered pan. If you put your freezer in an unheated room and wait until food is cold, these appliances will use less energy to keep food at right temperature.

- Set your appliances to power saving. Washing laundry at 40°C requires less electricity. If you use the Economy programme on your dishwasher. It will save 5% of electricity. Not using your tumble-dryer will save you 15% on overall electricity consumption.