

WHY SAVE A TREE?

A tree is a precious resource. Every part of it plays a role in our survival

THE TREE

- provides shade, thereby bringing down the temperature
- acts as a barrier against noise
- absorbs air pollutants
- provides a home for birds, insects and animals

Activity

Make your own tree scrap-book

- Make a scrap book out of folded sheets of thick brown paper, or, use an old note book or drawing book. With a pencil, a few crayons and some fevicol, you are now ready to observe trees.
- Keep two pages for each tree. Draw and colour the general shape of the tree, making notes of its height, the leaf, the bark, the flowers and the fruits. The assignments about the leaf, flower, fruit, seed and bark given in the following pages should match the tree.
- Take a walk through a park or down an avenue of trees. Observe the different shapes and sizes of the trees, its leaves, flowers and fruits. Collect a sample of each.

Observe the following:

- Does the tree give shade?
- When does it shed its leaves?
- When do the flowers and fruits appear?
- Find out the other uses of each tree - medicinal, food-giving, etc.
- Note down your observations about each tree in your scrap book..

THE ROOTS

- prevent soil erosion, thereby maintaining its fertility
- hold moisture, thereby conserving ground water
- are used for making medicines

Activity

Here are two hills, one vegetated and the other barren. The rains are falling on each hill. In the empty space next to each hill, draw and describe what happens to the hill because of the presence or absence of trees and plants.

THE LEAVES

- convert the sun's energy to food through photosynthesis
- convert carbon dioxide into oxygen, making it possible for us to breathe and live
- provide fodder for cattle
- are used as green manure

Leaf litter increases water infiltration into the soil, thereby conserving ground water.

Activity

- Make a leaf print. Place the leaf on a flat surface with the under side on which the veins are more prominent, facing upwards. Cover the leaf with a sheet of paper and rub over it with a pencil or crayon. Its print or impression will appear on the paper. Now stick the paper into your scrap book.
- Stick a leaf from the tree in your scrap book. Different leaves have different shapes and veins on them. Observe these leaves.

Draw the leaf in your scrap book and colour it.

- Describe the leaf
- What are its functions?
- Write the various functions in your scrap book.

PHOTOSYNTHESIS

- Carbohydrates are synthesized from carbon dioxide and water by utilizing the the radiant energy of light, which is captured by the chlorophyll in the cells of the green leaves. Photochemical reactions are initiated by which oxygen is released from water and light energy is converted to chemical energy, and amino acids are synthesized by the combination of intermediate products with elements such as nitrogen, derived from mineral salts. Most of the oxygen in the atmosphere is derived from photosynthesis.

THE FLOWERS

- provide food for birds and insects
- are used for making dyes
- are used for making drugs

Activity

- Pluck a flower off the tree. Place the flower between the pages of a thick book for a few days. The flower will dry and flatten out. When it is ready, paste it into your scrap book, next to your drawing of the flower.
- Draw and colour the flower
- Does the flower have any uses?
- Describe the uses in your scrap book

THE FRUITS AND NUTS

- provide food for man and animals

Activity

- Pluck a fruit off the tree. Cut it and observe the seeds inside. How many are there? What is the colour of the fruit on the inside?
- Draw and colour each part of the fruit and describe it.
- Draw the seeds. If they are small, stick them in your scrap book.
- Dry the seed and plant it. Does it grow? If not, find out why. Perhaps this tree reproduces only through cuttings.
- How does the tree reproduce? By seeds or by cuttings?

Find out, and write about it in your scrap book.

THE BRANCHES

- provide firewood for cooking

Activity

Here are the branches and leaves of the tree. Draw all the creatures who live on them, and the homes they build.

THE BARK

- is used for making medicine
- is tapped for latex (as in rubber)

Activity

- Collect a small piece of bark by peeling it off.
- Stick the piece of bark in your scrap book.
- Observe the colour and markings on the barks of the various trees.
- Draw and colour the details of the bark.
- What is the function of the bark?
- The lines on the inside of the cut tree trunk represent the age of the tree.

FIREWOOD

- Firewood accounts for 70% of cooking fuel in villages and 50% in urban areas of India
- 1.2 kg of firewood is required to cook 1 kg of food
- Rural India depends on firewood, because it is free
- To save firewood, we should encourage the use of smokeless, fuelwood-saving stoves.

What are the other sources of fuel for cooking ?

Charcoal, coal, cowdung, kerosene, gas, electricity, solar energy, bio-gas.

TIMBER

Observe a cut tree.

Activity

Its wood may be used for construction, furniture, paper, firewood, matches and match boxes Now, list the alternatives to wood. What other materials can you use to make the above, which will cause less ecological damage?

Activity

- List all the animals and birds who have lost their homes when the tree was cut
- List the losses to you and your neighbourhood

A tree is an entire industry if it went on strike, we would die. We must preserve it.

We cut trees for	The alternatives are
Firewood and charcoal	using only the branches or alternative energy sources such as bio-gas
Pulp and paper	recycled paper and agricultural waste, and using slates in primary schools
Timber for construction	steel, a renewable resource and furniture

Activities

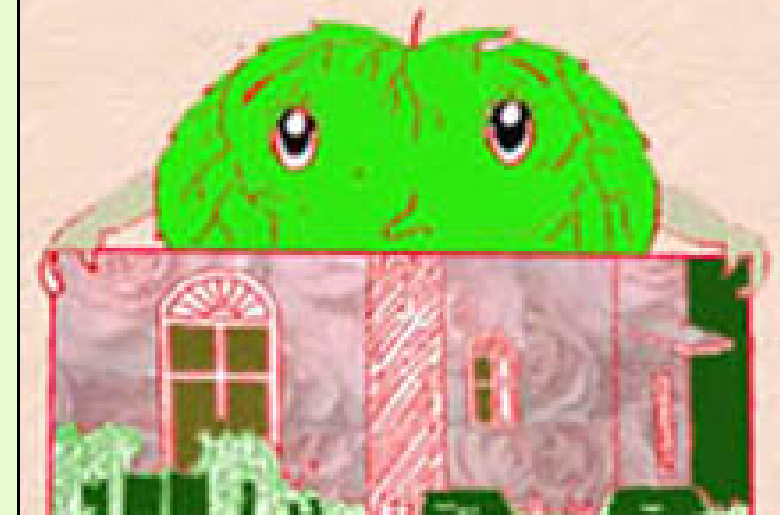
Grow a tree

Planting a seed and watching it grow is a fascinating process, but it takes time. You can grow tree in your garden, school or in any public place. If you live in a flat, plant it in a pot and watch it grow.

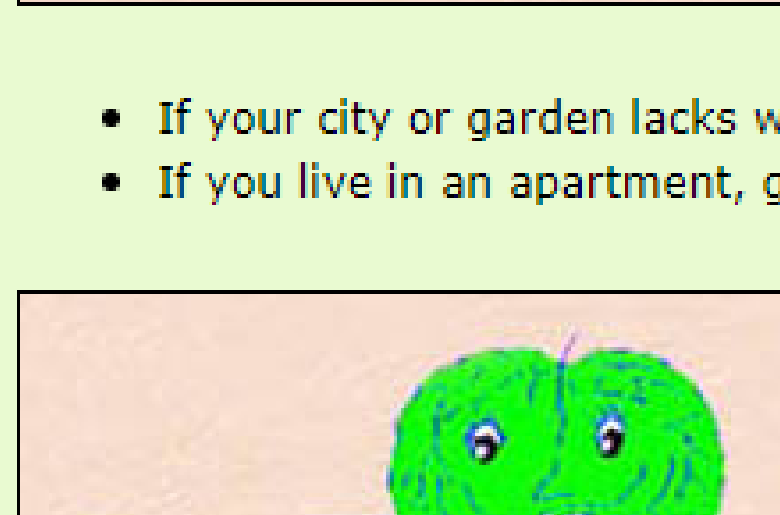
- Seeds of trees such as guava, papaya, pomegranate, jamun, etc., grow easily.
- Soak the seeds in water overnight.
- Sow in a polythene bag, tin or pot filled with soil and farmyard manure. The bottom of the container should have a hole covered by broken pot shards for easy drainage. The seed should not be sown deeper than about 2 cms.
- Keep the pot in a shady place and water it once in two days.
- When the plant is strong and has a sturdy stem, transplant it in to the ground.
- The plant must be watered and manured regularly. Watch it grow and become a tree.
- Design a postage stamp to commemorate your favourite tree

THINK GREEN !!

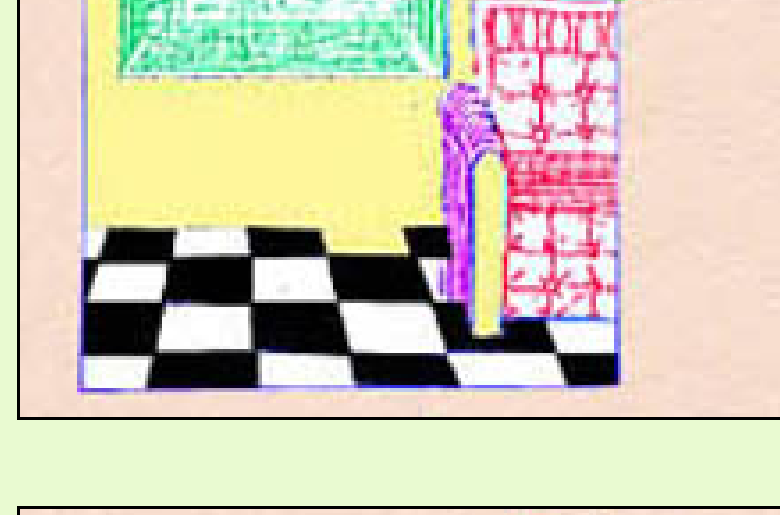
- Planting trees is one of the most important things you can do to save the environment.
- It takes about 625 square feet surface area of vegetation to produce the daily oxygen requirement of one person.
- Even people living in big, bustling cities can play a vital role in greening their environment. Here are some simple, cost-effective ways by which you can plant a tree, and do your little bit to green your world . .



- If you have a big enough garden, plant trees, for they can cool your homes considerably.



- Garden plants are better than a lawn for absorbing carbon dioxide. So when you plan your garden, opt for extra space for plants rather than for a lawn



- Window boxes can be used to grow small flowering plants which also add to the beauty of your apartment. Try and use discarded materials to make your boxes.



- Keep indoor plants in the house : they can lessen indoor air pollution.

- Compost your leaf waste to avoid use of chemical fertilisers.
- When you buy furniture, find alternatives to wood. You will be saving some of our precious forests.
- Do not present flower bouquets. Instead, give a potted plant and encourage your friends to grow plants



- Start a tree planting programme in your area. Plant on roadsides, in parks, in schools, factories and home

- Saving paper is saving trees.



- Use paper carefully, write on both sides of a sheet.
- Save envelopes, old letters and junk mail. Use this when you need paper.
- Do not use paper towels and tissues in household cleaning activities. Instead, use old towels, sheets and pillow case

- Do not use paper plates and tissues or paper decorations when you hold a party.
- Do not collect unnecessary pamphlets and leaflets just because they are free.
- Use cotton handkerchiefs rather than paper tissues.
- Avoid sending greeting cards. Every year countless trees are cut down for them.
- Reuse cartons and gift wrapping paper.
- Use recycled paper whenever possible.
- Start eco-clubs in schools which will take up projects in the locality.
- If you see trees being cut down on the street, report it immediately to the concerned authorities.



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- Most environmental problems arise due to public apathy.
- Make saving trees a personal commitment.