

Compiled by: Learning about Forests (LEAF)
COVID-19 Response - Activities for LEAF schools

Introduction

The following pages contain LEAF related activities that can be done at home. We recommend that you use the sustainability audit as an introduction before going further into the activities. Please feel free to make changes to accommodate the the guidelines where you are located. The activities are from Center of Environmental Education, India. We hope you like them!

Theme: Pollution

There are many different types of pollution. One of the types of pollution closest to our individual lifestyles is in the form of waste and litter. This issue is becoming increasingly relevant due to the pandemic where disposable protective materials, like masks and gloves, have created a new stream of hazardous/infectious waste. As more time is spent at home, there is an opportunity to extend this activity to sustainable consumption and involve the family in making choices to reduce waste in the bin.



LEAF - POLLUTION AUDIT

Carry out an audit for litter and waste to identify current challenges. Research and write questions for the audit.

Some questions that could help guide you as you plan the audit are listed below:

- a. Has single-use medical waste (masks and gloves) created more problems in terms of litter on streets and more people exposed to infection?
- b. What materials are used to produce personal protective equipment and how can those materials be properly discarded or re-used?
- c. Are reusable masks effective?
- d. What is the most common type of waste in your bin?
- e. Are there ways you can reduce the waste in your bin?

Suggestions for specific audit activities:

- a. If there is a garden available, try performing a little experiment by burying something you think is decomposable in one pit and something you don't think is decomposable in a pit next to that. See what happens after one week and two weeks, and try to research what characteristics made one item decompose while the other did not. Make sure to correctly dispose the item that is not decomposable!
- b. Observe people around you (if you live in an urban area where you cannot go out, try looking out of the window) and watch how they handle their waste. Do they throw it on the street? If so, look to see if there are any trash cans around or if they are hard to see. Do people take their waste with them if they cannot find a trash can? Do they sort their waste?
- c. Survey to see what the main obstacles are when it comes to handling waste in responsible ways and reducing the use of single-use items. Send out questionnaires to other students from your grade/school (depending on the size) or relatives.
- d. Reflect on the relationship between the crisis we are facing regarding the pandemic and the climate crisis. Ask experts or find and read different research papers and articles on the topic. Share the best ones with your family, friends and neighbours.

LEAF ACTIVITY : BIODEGRADABLE OR NON-BIODEGRADABLE

Objective: To classify objects as biodegradable and non-biodegradable.

Teaching Method : Game

Teaching Aids : Different kinds of biodegradable and non-biodegradable objects (about 10 objects each), large tray, cloth to cover

Group Size : Up to 30

Duration : 30 minutes

Introduction

It is common knowledge that many of the items in the kitchen and garden waste rot over a period of time. Those wastes that rot are undergoing the process of degradation. This process is aided by microorganisms and it is a useful process that removes waste. But there are many other items in the garbage that do not rot. They stay intact. It is important to understand how garbage includes both kinds of items.

How to Do?

Collect ten biodegradable and ten non-biodegradable objects (see sample list on next page).

Jumble the objects and arrange them on a tray. Cover the tray with a cloth. Tell the students that you would show them a collection of different items for 30 seconds. After showing the items, cover the tray again with the cloth. Now, ask them to list down on a paper, the items which they remember seeing on the tray. The students should then group the items into two categories—biodegradable and non-biodegradable.

After they finish, ask each student how he/she has grouped the items. Write the items under the heads 'Biodegradable' and 'Non-biodegradable' on the board for every one to see and discuss.

Sample List

Biodegradable

Banana skin

Handkerchief

Paper

Dry leaves

Dead insect

Leather belt

Flowers

Wooden ladle

Potato

Rag doll

Non-biodegradable

Styrofoam cup

Plastic bag

Empty fruit juice pack

Toothpaste tube

Broken plastic toy

Rexine bag

Glass bangle

Metal spoon

Plastic pencil box

Plastic doll

Recap and Discussion

What does 'biodegradable' and 'non-biodegradable' mean?

Explain that degradation means decay and 'bio' means such decay which is carried out by microorganisms. Bacteria, fungi, insects, worms and other organisms eat this material and convert them into new forms. So, biodegradable waste can be composted to obtain natural manure.

Not all materials however change form. These are usually made up of material that are not natural but synthetic or human made. It is these materials that add to the problem of waste.

Evaluation

How can we manage biodegradable and non-biodegradable wastes? Which wastes are manageable?

Home Assignment

Ask students to list down, from their daily activities ten items that they regularly use which are non-biodegradable and ten items which are biodegradable.

There is no waste in functioning biological communities; the wastes or dead bodies of one form of life are food or nutrients for other forms of life.

Nearly 90 per cent of plastic water bottles are not recycled. They may take hundreds of year to decompose.



LEAF ACTIVITY: HOME GARBAGE AUDIT

Objective : To understand that change in lifestyles and habits has contributed to waste problems.

To become aware that growing consumption has led to increase in garbage.

Teaching Method : Survey

Teaching Aids : Copies of the Home Garbage Survey Sheet

Group size : Individual

Duration : A week for the survey, 30 minutes for the activity

Introduction

Where does garbage come from? Much of it comes from households. Can students guess approximately how much waste is generated in their home per day? One way to find out is by carrying out a survey. It helps to understand the quantity and kinds of wastes generated at the household level.

How to Do?

Ask students to note the garbage thrown out daily by their family and fill the Home Garbage Survey Chart.

Before filling the chart, set a unit of measurement for each item, that is, glass or containers could be counted by number of items. Paper may be counted by number of pieces or sheets. Kitchen waste may have to be weighed or measured in a standard measure: e.g. cup or small pan.

Let them make their observations for a week. Add up and calculate the approximate weight of the waste for the entire week. Find out the average waste generated per day in their home.



Home Garbage Survey Chart

Day	Types of Garbage					
	Paper	Glass	Aluminium/tin	Plastic	Kitchen waste	Others (batteries, etc.)
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						
Sun						

Note: Care should be taken while sorting the garbage. Wear gloves while sorting and wash hands well with soap after the exercise.

Recap and Discussion

Ask students to tell what are the advantages of carrying out a survey like this? How can waste management to be taken up once you know the quantity of waste, and the kinds of wastes that are generated?

Evaluation

Let students present their survey findings. What makes up the maximum part of the waste? Are the quantities almost similar? If there are great variations, discuss why this may be (more family members, more use of packaged goods, etc.)?

Extend the calculations to obtain the approximate quantity of waste generated by households in a block of flats, township, village, town, city, etc.

Home Assignment

Based on the survey results, students could suggest three ways in which they can reduce the generation of non-biodegradable waste at home?

Recycle today for a better tomorrow.

Reusing is better than recycling. Eg. the electricity used in recycling one soft drink can will run a TV for 3 hours.

