

Learning Outcomes

- ✓ Students know and understand what compost is, how it is used, and why it is important.

Create Your Compost in a Bucket

Skills

Students will:

- Plan and build a compost bucket
- Work collaboratively.

Values and Attitudes

Students will:

- Be enthusiastic about creating a product
- Appreciate the benefits of composting.

Materials Needed

- 20 litre/5-gallon bucket with lid
- Trowel or spade
- Tarp
- 5 litre /1 gallon of compost, soil, or sawdust
- Compostable materials (grass clippings, paper, food scraps from participants)
- Non-compostable materials (e.g. plastic cups)
- Water
- Worksheet
- “Greens” and “browns”.

Background Information

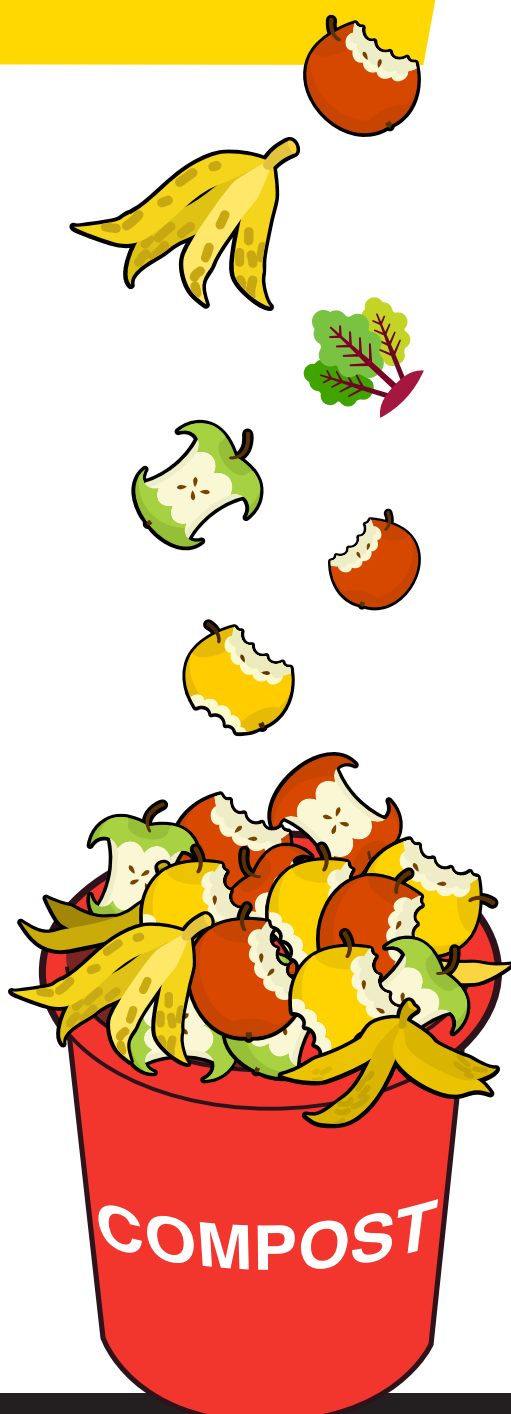
Soil is a precious natural resource, composed of rocks, minerals, living organisms, and organic matter. Organic matter in soil comes from the decomposition of plants and animals. To grow, plants need minerals in the soil.

Microscopic animals – known as bacteria – in our soil eat and transform dead tissues of plants and animals into nutrients that can be easily absorbed by plants. One handful of soil can contain a massive five billion creatures.

Composting happens wherever there is sufficient organic matter, moisture, and air to nurture these microscopic bacteria, fungi, and other organisms that decompose organic matter. The process converts organic materials into a nutrient-rich soil amendment.

Management Skills

This is a great activity to undertake when it's not feasible to create an outdoor compost pile and can be enjoyed by the entire class. Consider having several buckets with different types of materials collected by the students. For a healthy compost bucket, add more browns than greens and be sure to keep the bucket moist and aerated by turning it regularly with a fork.



Activity

During this activity, the students will:

- Discuss how composting is nature's way of recycling and what can be composted.
- Talk about why people would want to compost and why it is important.
- Collect appropriate bio-degradable materials for the compost.
- Record, on worksheets, the items that go into the bucket.
- Make predictions about what will happen in the bucket and to different materials... Will it smell bad? Will it decay? Will things grow in it? What will happen to the banana peels? the plastic cups?
- To make the compost bucket:
 - Add about 4 litres (1 gallon) of soil, compost, potting mix, or sawdust from untreated wood to the 20 litre (5-gallon) bucket. Don't fill the bucket more than 3/4 full.
 - Keep material moist but not completely wet.
- Review the activity by discussing the basics of compost and why it is important.

Follow-Up Activities

Maintain Your Compost in a Bucket

- Every few days, open the bucket to mix and water the contents.
- Maintain a classroom chart recording the temperature, odour, texture, weight, and other observations.
- At the end of two to four weeks, review the list of contents added to each bucket.
- Empty the contents of each bucket on a tarp and examine, comparing = predicted outcomes with actual outcomes. Try to identify as many items as possible.
- Present and discuss the outcomes.
- Review the process of decomposition of organic materials.

