Rotten Apple Party: Compost Bin Game Show Facilitator Notes

Objective: To use the metaphor of *throwing a party* to introduce students to how composting works, how it benefits our soil and the idea that soil is a habitat for billions of organisms.

Recipe Category: Soil & Composting

Cooking Time: 30mins

Level of Difficulty: Grade 1

Recipe Ingredients:

Introduction

- ☐ Soil samples: dirt, compost, coconut husk in small containers with lids
- ☐ Small bowls for investigating each soil

Worm Overview

- ☐ Worm anatomy picture

The Earth as an Apple

- ☐ An apple
- ☐ A small knife

Composter Game Show:

- ☐ Labeled green bin, recycle bin, mini garbage bin and container representing "home"
- ☐ Picture cards or real household scraps to categorize

Curriculum Links:

Grade	Subject Area	Ontario Curriculum Links
1		*Understanding Life Systems:* Investigate needs and characteristics of plants and animals, including humans

	Science and Technology	(O) • 2.3 Investigate and compare the physical characteristics of a variety of plants and animals, including humans (S) Demonstrate an understanding of the basic needs and characteristics of plants and animals, including humans (O) • 3.2 Identify the physical characteristics of a variety of plants and animals (S) • 3.6 Identify what living things provide for other living things (S)

Introduction: (5 minutes)

Firstly, ask who likes going to parties… *What about a compost party!*

- Ask the class for their definitions of *composting*. If they have no idea, ask them about *recycling* first and then relate it back to composting. It's just like recycling our food scraps into something new!
- Compare how composting is kind of like a party for teeny tiny microorganisms (animals that are so small, we can't event see them!) in the soil – but really it's a *habitat,* where they all live together happily.
- The end result of composting is beautiful worm castings or, worm poop! This stuff looks like dirt, but really is a super-duper soil to make healthy plants. *What happens?*
- Worms wait for our food scraps to start breaking down after we've tossed them into the green bin or compost pile, before feeding on them. Just like us, worms poop. But worm poop is special stuff that helps our garden to grow big and strong. Kind of like what fruits and vegetables do for us.

***Show, feel and smell soil samples (compost, dirt and coconut husk) and discuss the differences between them.*

- Textures
- Colour
- Smell
- Benefits/Uses

Worm Overview: (5mins)

- Show the worm anatomy picture and discuss the different parts of the worm, in particular:
    - The mouth – where food goes in
    - The 5 hearts (have them guess how many first)
    - The gizzards – their "guts", where they digest their food
    - The clitellum – worms are both boys and girls ("Herm-aph-ro-dites")
    - The anus – where the compost or worm "castings" come out
- Hold real worms if you have them!

The earth as an apple (5 mins) from http://www.alabamaaitc.org/fall00/earth.html

Use an apple to go through the following sequence:

- *Imagine this apple was our earth…*
- Slice an apple into quarters.
- Set aside three of the quarters. These represent the **oceans** of the world.
- The fourth quarter roughly represents the total **land area** left
- Slice this land quarter in half, giving you two 1/8th world pieces.
- Set aside one piece. This is **land that people can't use** (polar areas, deserts, swamps, very high or rocky mountainous areas.)
- The other 1/8th piece is the **land where people live**, but does not necessarily grow the foods needed for life.
- Now slice this 1/8th piece into four sections, giving you four 1/32nd pieces.
- Set aside three of these pieces. These are **areas where we can't grow** because it's too rocky, too wet, too cold, too steep, or the soil is too poor. They also include the areas of

land that could grow food but are buried under cities, highways, suburban developments, shopping centers, and other structures that people have built.

- This leaves a 1/32nd slice of the earth. Carefully peel this slice. This tiny bit of peeling represents the surface, the very thin skin of the earth that we rely on to grow our food. Less than five feet deep, it is a fixed amount of **food-producing land**.

When we see the small amount of land that produces our food, it's easy to see that protecting land resources are important.

**Remember*: It takes a really, really loooong time (for teachers, around 100 years) to make soil about as deep as your thumb (1 inch). The water we have on earth today is all the water we'll ever have. So you can see why it's so important to recycle our food scraps into compost!!

Compost Game Show (10mins)

- Set up the green bin, blue recycling bin, mini garbage bin and container ("home") in front of the group. Make sure each bin in labeled and easily recognizable.
- Hand out the sorting cards (or real objects) to the students
- One at a time, ask them to either try and read the word, or guess according to the picture what each card says (or simply state what they're holding).
- As a group, decide which bin each item belongs in.
- Discuss why or why you wouldn't place each item in the compost
- Some examples of items to sort are:
    - Banana peel
    - Cardboard box
    - Plastic wrap

- Can
- Bottle
- Bones
- Apple core
- Newspaper
- Orange peel
- Chocolate cake
- Plastic
- container
- French fries

- This game can also be played in teams, scoring points or in a "guess who" sort of way. Each student asks the class closed questions to figure out what they have on their card before sorting it into the correct bin. For example, "Am I a plant?" "Am I green?" "Do I go in salads?"…

Recap:

Revise key concepts such as:

- The small amount of land and soil that we can use to grow our food
- Topsoil
- Compost
- Recycling

Serving Suggestions:

Worm Anatomy Picture: