

02

# COMPOSTING





# COMPOSTING

## WARM-UP

# Growing Up Green

TIME  
GROUP SIZE  
AUDIENCE

5-10 minutes  
2-20 participants  
5-8 years

## DESCRIPTION

A guided imagery activity; participants are lead on a magical journey through the life, death, and rebirth of a seed.

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## MATERIALS

- \* Script (provided)
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## KEY MESSAGES

- \* Plants and trees grow up from the soil and, when they die, get recycled back into the earth so new things can grow.
  - \* Composting is nature's way of recycling.
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## MANAGEMENT SKILLS

- \* Have the participants spread out where they all have room around them and where they can all see the facilitator.
  - \* The facilitator will go through the guided imagery story demonstrating the movements while encouraging the participants to follow along.
  - \* You may repeat the activity once you have gone through it the first time as the participants will be more familiar with the story and movements.
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## PROCEDURE

### STEP 1

Start by setting up the activity for participants: "Do you like evergreen trees? In Newfoundland and Labrador, many of our evergreen trees are called balsam fir trees. Did you know that something magical happened so that fir tree could group up green and tall from the earth? I'm not talking about magic spells and witch's potions. I'm talking about the magic that happens in nature all around us, every day."

### STEP 2

Explain that participants are going to go on the same journey as a balsam fir tree. They will be born, grow up, die, and go back into the ground so that new plants can grow.

### STEP 3

Start the guided imagery activity using the following script as a guide.

### STEP 4

At the end of the guided imagery script, give each participant a chance to say what type of plant or tree they grew into.

## WARM-UP

# Growing Up Green Script

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Now it's time to go on our own magical adventure to see how special nature really is! We are going to pretend we are tiny fir tree seeds and go on the same journey a fir tree takes when it's born from the soil, grows up into a tall, green tree, and then dies to become part of the soil so new things can grow.

First we're going to pretend we are fir cones high in the tree top, holding the tiny seeds inside.

**ACTION:** Everybody stand up tall and make the shape of a fir cone with your fingertips touching above your head.

Do you know how the seeds get out of the fir cone? The cone blows in the wind and the seeds shake out. Let's pretend we are cones shaking our seeds out.

**ACTION:** Everybody shake your shoulders from side to side and shake the seeds out.

The seeds have a long way to go from the tree top to the ground. Do you know how they make it to the ground safe and sound? They use their wing to glide down to the ground. Let's pretend we are fir seeds and glide down to the ground.

**ACTION:** Everybody put your arms out in front of you and hold the palms of your hands together (to make a wing) and glide down to the ground (glide wing back and forth and move down to the floor).

Now that we have made it safely from the cone in the tree top down to the ground, we are ready to make our way down into the soil. Let's be seeds making our way into the ground.

**ACTION:** Curl up in a ball like a tiny seed and wiggle your way down into the soil.

Once a seed has found its way down into the soil, all it needs to start growing is sun and rain. As the sun shines and the rain falls down, a seedling begins to grow up and out of the soil. Let's be seedlings sprouting up from the soil.

**ACTION:** Everybody sit up on your knees (with your hands in prayer position) and move your arms up towards the sky like a tiny tree seedling.

With a little more sun and rain, and the healthy soil around all around it, you can grow up from a tiny seedling to become a tall, green fir tree. Let's be tall, green fir trees.

## COMPOSTING

### WARM-UP

# Growing Up Green Script

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**ACTION:** Everybody stretch up onto your tippy-toes, stretch your head up towards the sky, and move your arms down and out to your sides in the shape of a tree.

You did it! You started as a little seed and then used the sun and the rain and the healthy soil to help you grow up tall and green with your roots planted firmly in the ground. It's time to enjoy the life a tall, green fir tree.

**ACTION:** Spread your legs apart like strong tree roots and feel the wind sway you from side to side.

Oh no! The wind is getting stronger and stronger! It must be a wind-storm! The wind is so strong that it bends you from side to side and you can't hold on any more. You fall to the ground.

**ACTION:** Bend from side to side and fall down to the ground.

At first you are sad to be down on the ground instead of growing tall and swaying in the wind, but then you notice something magical happening. You can see and feel the insects, ants, and worms crawling on your bark and tickling your roots.

**ACTION:** Wiggle your legs, feet and fingers as the insects, ants and worms tickle you all over.

Do you know what happens to the fallen tree when the insects, ants and worms start to do their work? They keep working until they break your bark and branches into tiny pieces and you become part of the soil. Let's be soil made from the trees and plants that died in the forest.

**ACTION:** Sit up on your knees because now you are healthy soil and this is the most important part. You need to get ready to grow new plants and trees.

When you were a tree, you were healthy and strong. Now that you are part of the soil, you make the soil healthy and strong so new trees and plants can grow. Let's pretend that we are a seed down in the soil that's getting ready to grow up tall. Before we stretch up towards the sky, let's think of a tree or plant that we would like to turn into (give examples). Are you ready?

**ACTION:** Everybody stretch up from the ground, reach your arms up above your head, stretch up onto your tippy-toes and become a new plant or tree.

Now it's time to tell everyone what type of plant or tree you grew into.



# COMPOSTING

## WARM-UP

# Speed Acting

TIME  
GROUP SIZE  
AUDIENCE

15 minutes  
2-20 participants  
9-12 years

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## DESCRIPTION

Participants must act quickly to choose between the actions for recycling, composting, or picking up litter. Speed acting will get participants moving, thinking on their feet, and having fun.

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## KEY MESSAGES

- \* Recycling means turning something into something new.
  - \* When we compost decomposer organisms, like worms, help us recycle just like nature does.
  - \* Picking up litter is a way we can all help protect our environment.
- .....

## MANAGEMENT SKILLS

- \* Let the group practice the actions several times before beginning the game.
  - \* If your group finds this easy you can make up a fourth action to add to the game.
- .....

CONTINUED ON BACK

# COMPOSTING

## WARM-UP

# Speed Acting CONTINUED

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## PROCEDURE

### STEP 1

There are 3 actions in this game – start off by showing all participants the actions so they understand. Each action involves 3 participants.

- \* **RECYCLE** (Three Arrows in Mobius Loop)  
**Middle player:** kneel down and put both arms out straight to the sides  
**Left and right side players:** arms and hands together overhead and leaning forward until both players fingertips touch (forming a triangle with the player in the middle).
- \* **COMPOST** (Banana Peel and Worms)  
**Middle player:** arms above head with hands closed forming a point (like a banana)  
**Left and right side players:** arms above head and wiggle body (like a worm)
- \* **LITTER** (Garbage Bin and Picking up Litter)  
**Middle player:** arms stretched out in front forming a circle (like a garbage bin)  
**Left and right side players:** bending down to pick up litter and throwing it in the bin

### STEP 2

The game will begin with participants standing in a circle and one standing in the middle.

### STEP 3

The participant inside the circle will randomly point at a player in the circle and say either RECYCLE, COMPOST, or LITTER.

### STEP 4

The player that is picked – along with the players on either side of them – will have to do their 3-person action correctly. If anyone does the wrong action, or completely forgets the action, they become the player in the middle of the circle.

### STEP 5

The faster the player in the middle points at players, the more likely it is that they will catch someone messing up.

# COMPOSTING

## ACTIVITY

# 100 cm Hike

TIME  
GROUP SIZE  
AUDIENCE

20-25 minutes  
2-20 participants  
5-12 years

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## DESCRIPTION

This is an outside activity where participants are taken on a hike along 100 centimetres of trail to discover the magical underworld of organisms living on the forest floor.

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## MATERIALS

- \* Magnifying glass (x 10)
  - \* 100 cm long piece of string (x 10)
  - \* Pencils (x 20)
  - \* 100 cm Hike Worksheets (sample provided) (x 20)
  - \* Clip boards (or hardcover book, for writing on) (x 20)
- .....

## KEY MESSAGES

- \* Plant litter is dead plant material like leaves, needles, bark, and twigs that have fallen to the forest floor.
  - \* Decomposer organisms like bacteria, worms, fungi, and insects break down plant litter and recycle it back into the soil.
  - \* If you look closely, you can see decomposer organisms hard at work on the forest floor.
- .....

## MANAGEMENT SKILLS

- \* Divide the participants into groups of two to four.
  - \* Spread the groups out so that each group has enough space to gather around the string.
  - \* Be sure to pick a section of trail that has a nice amount of plant litter.
- .....

CONTINUED ON BACK

# COMPOSTING

## ACTIVITY

# 100 cm Hike CONTINUED

### PROCEDURE

#### STEP 1

Explain to the participants that they are going to go on hike along 100 cm of trail (hold up a piece of string to show them how long 100 cm's is). Ask participants if they think they will see much along the trail.

#### STEP 2

Even though we might not think there is much to see on a 100 cm hike, we'll discover that a lot of things happen in nature that we don't always see. When trees, leaves, and plants die, they fall to the forest floor. All that dead plant stuff makes a kind of carpet on the forest floor. That carpet is called plant litter. Living things like bacteria, fungi, worms, and insects recycle plant litter back into soil. Those living things are called decomposer organisms. They work on plant litter by crunching and grinding it with their mouths and bodies; making it soft and crumbly, and turning it back into soil. Plants grow up from the soil and after they die, decomposer organisms help turn them back into soil. That's why we call decomposer organisms "nature's recyclers".

#### STEP 3

Give each group a piece of string, their magnifying glasses, worksheets, clipboards, and pencils.

#### STEP 4

Find a place on the forest floor and lay a piece of 100 cm string out for each group to hike along.

#### STEP 5

Instruct participants to get down on the ground with their magnifying glasses and explore the 100 cm long trail.

#### STEP 6

Guide participants to look for the following: decomposer organisms like worms, mites, and ants; organic material like leaves, needles, and seedlings; other plant and animal material (either dead or alive).

#### STEP 7

Instruct participants to use their worksheets to draw what they see, and to make note of the decomposer organisms and organic material that they see.

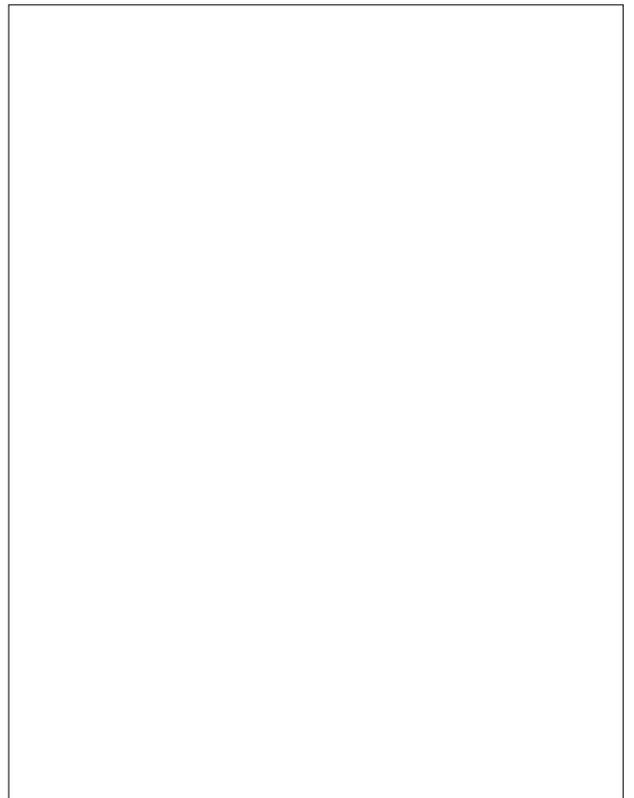
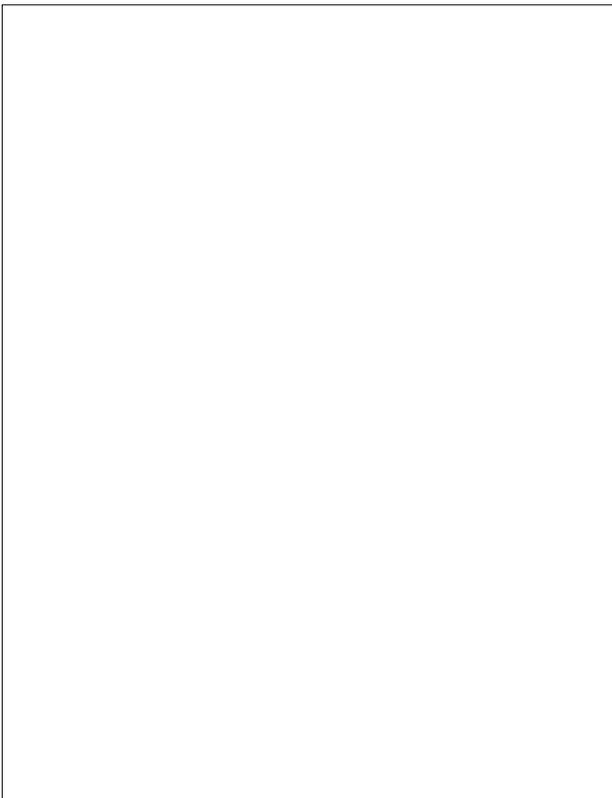
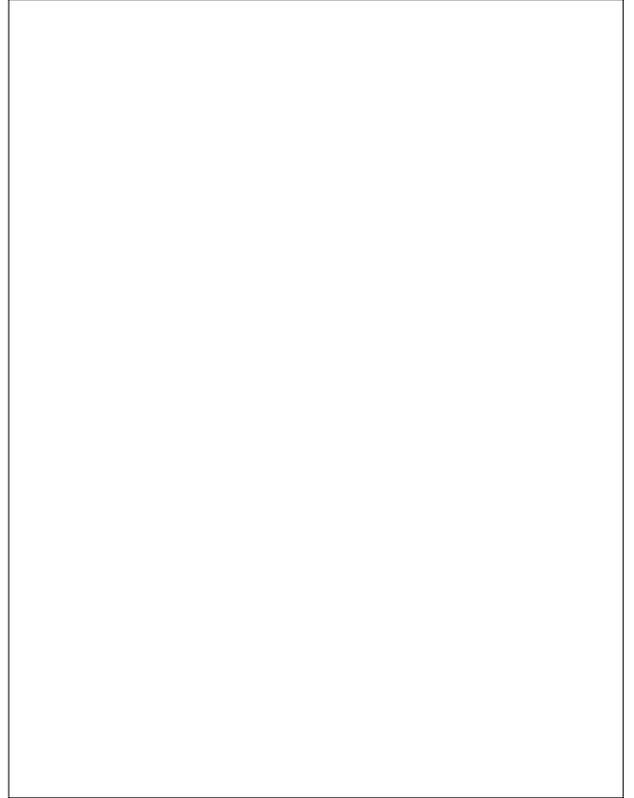
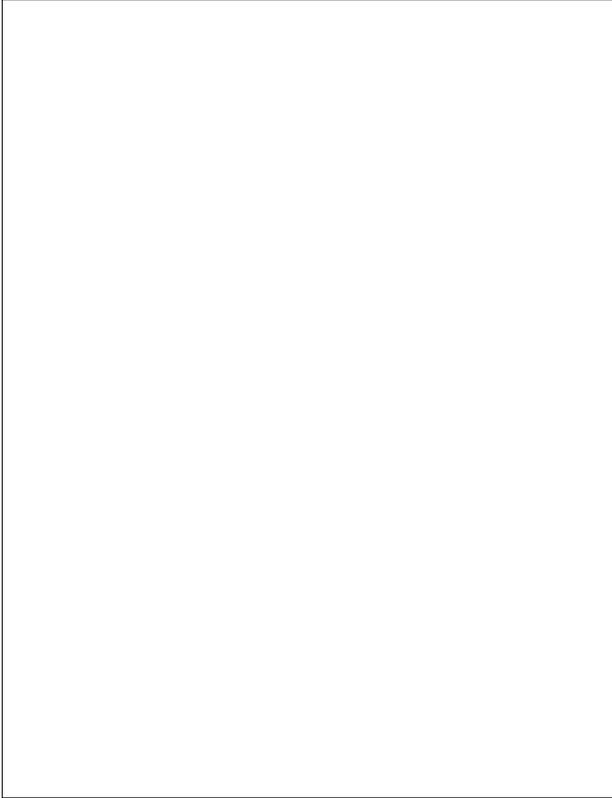
Resources for this activity are on the following pages.



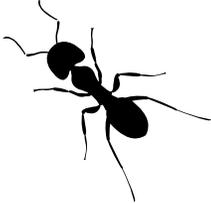
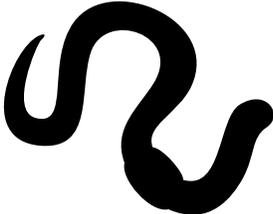
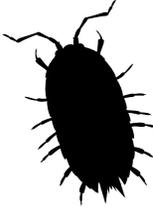
**RESOURCES | 100 cm Hike Worksheet**

Name: \_\_\_\_\_

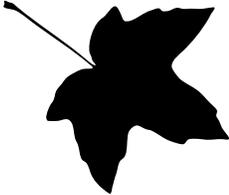
**Draw what you see:**



### Did you see decomposer organisms?

<input type="checkbox"/> Ants		<input type="checkbox"/> Snails	
<input type="checkbox"/> Worms		<input type="checkbox"/> Carpenters	
<input type="checkbox"/> Mites		<input type="checkbox"/> Millipedes	

### Did you see organic material?

<input type="checkbox"/> Leaves		<input type="checkbox"/> Sticks	
<input type="checkbox"/> Seedlings		<input type="checkbox"/> Cones	
<input type="checkbox"/> Tree Needles		<input type="checkbox"/> Mushrooms	

# COMPOSTING

## RUNNING GAME

# Earth Machine

TIME  
GROUP SIZE  
AUDIENCE

15-20 minutes  
6-20 participants  
5-12 years

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### DESCRIPTION

Participants will learn what can be composted in a backyard compost bin while playing a fun, fast-paced running game.

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### MATERIALS

- \* Pylons (or reused pop bottles) (x 4)
- .....

### KEY MESSAGES

- \* We can compost food waste from our kitchens like apple peels, banana peels, vegetable scraps, stale bread, peanut shells, leftover pasta, etc.
  - \* We can compost yard waste from our gardens like fallen leaves, grass clippings, plant debris, etc.
  - \* In a compost bin, decomposer organisms, like worms, break down food and yard waste and turn it into nutrient-rich compost.
  - \* Some backyard compost bins are called Earth Machines because they make earth.
- .....

### MANAGEMENT SKILLS

- \* This game is best played outside in a large field but can be played in a gym as well.
  - \* Use the pylons (or pop bottles) to mark each end of the playing area.
  - \* Before beginning the game, give some examples of materials that can and can't be composted (like different types of fruit and vegetable scraps, leaves or grass).
  - \* For younger groups, the participant in the middle may need suggestions about what compostable item to call out.
  - \* Make a rule that if the participant in the middle calls out an item and that item is one of the words you are thinking of, you must run. For example "mouldy apple peel" is the same as "apple", "dried leaves" is the same as "leaves", and "rotten banana peel" is the same as "banana".
- .....

CONTINUED ON BACK

# COMPOSTING

## RUNNING GAME

# Earth Machine CONTINUED

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### PROCEDURE

#### STEP 1

There are three roles in this game: compost catcher, worms, and compost bin items.

#### STEP 2

The playing area has a starting line and a finish line. Begin by having all participants stand along the starting line. Choose one participant to be the “compost catcher” and have them stand in the middle of the field. Make sure to leave lots of space between the two ends of the field for the compost catcher to run around.

#### STEP 3

All remaining participants will think of an item that can be composted in a compost bin. For example, an apple core, banana peel, lettuce, bread, pasta, coffee grounds, tea bags, dried leaves, etc. Remind participants NOT to say their item out loud.

#### STEP 4

The compost catcher will think of an item that can be composted, and will call it out to the group.

#### STEP 5

All the participants who were thinking of that same item must attempt to run from their place on the starting line all the way to the finish line without being caught by the compost catcher.

#### STEP 6

If the participant is caught, they must freeze in their place and they become a wiggling worm. The wiggling worm’s job is to help the compost catcher catch participants as they run by. The wiggling worm cannot move from their space; they must keep their feet planted on the ground and reach out to tag participants.

#### STEP 7

At any time during the round, the compost catcher can call out “EARTH MACHINE!” (instead of a compostable material) and everyone remaining at the starting line must attempt to run to the finish line.

#### STEP 8

Once remaining participants get to the finish line, the finish line will become the starting line. A new round will start and participants will attempt to make their way back to the other side.

#### STEP 9

The compost catcher will continue calling out compostable items, or “EARTH MACHINE!” to get all participants to run.

#### STEP 10

The game ends when all compost bin items have been caught by either the compost catcher or the wiggling worms. To continue with a new game, the last participant standing can become the compost catcher.

# COMPOSTING

## ACTIVITY

# Start a Worm Compost Bin

TIME  
GROUP SIZE  
AUDIENCE

30-45 minutes  
2-20 participants  
5-12 years

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## DESCRIPTION

The facilitators and participants will work together to create their very own worm compost bin (vermicompost bin) to keep at camp for composting organic waste.

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## MATERIALS

- \* A plastic bin and cover (about 24 x 16 x 12.5 inches)
  - \* A small collection container and cover (like a large yogurt container)
  - \* A hand drill (or hammer and nail)
  - \* A bag of natural peat moss
  - \* Shredded newspaper
  - \* 1-2 dozen finely crushed eggshells
  - \* 1 lb. of red wiggler worms
- .....

## KEY MESSAGES

- \* You can compost your fruit and vegetable scraps with an indoor compost bin called a vermicompost bin.
  - \* Worms make compost by consuming your food scraps and expelling it as worm castings (droppings).
  - \* The worm castings, together with other decomposed organic material, make up what is known as vermicompost – a nutrient-rich material that’s great for your plants and garden.
  - \* Composting is nature’s way of recycling.
- .....

## MANAGEMENT SKILLS

- \* Place all the materials on a table and have the participants gather around where they can all see.
  - \* Allow the campers to participate hands-on and see things up close as much as possible.
  - \* Although a vermicompost bin can be set up during camp, maintaining a bin is a long-term project as it will take 3-6 months before it is ready to be harvested. Be sure that someone is dedicated to maintaining the bin after camp has ended.
- .....

## ACTIVITY

# Start a Worm Compost Bin CONTINUED

## HOW TO MAKE A VERMICOMPOST BIN

### 1) SET UP YOUR BIN

#### THE BIN

A standard plastic bin that works well for vermicomposting measures about 24 x 16 x 12.5 inches. Any plastic bin roughly these dimensions will work fine. Drill small holes along the top four sides of the cover to allow air flow.

#### THE BEDDING

There are many different materials that can be used to make the bedding. We recommend a mixture of peat moss, shredded newspapers, and crushed eggshells.

**Tip:** Eggshells will counteract the high acidity of the peat moss to help keep the bedding neutral and also provides worms with the grit necessary to digest their food.

**Tip:** Be sure that none of the participants in your program have an egg allergy. If there is an egg allergy you can substitute powdered limestone for crushed egg shells.

#### Make the Bedding:

- 1 Mix the shredded newspaper and egg cartons with the peat moss about one-to-one.
- 2 Add the crushed eggshells.
- 3 Add water to the bedding until the mixture is about as moist as a wrung-out sponge.
- 4 Make sure the bedding is well mixed (get your hands in there).
- 5 Now you're ready to add your worms.

**Tip:** Before adding water to the bedding let the water sit for 12 hours, to allow the chlorine to evaporate and the water to reach room temperature.

#### THE WORMS

You will need about one pound of red wigglers – that's about 1000 worms! Gently add your worms to the top of the bedding and watch as they make their way out of the light and into the dark, moist soil.

**Tip:** To prevent worms from migrating out of the bin, leave the cover off and a bright light on for the first 3-5 days. The light will keep the worms down in the bedding. After 3-5 days you can turn off the light and put the cover on the bin. The worms should be accustomed to their new surroundings by this time.

You can buy red wiggler worms from a worm farm or get them from a friend who has an excess of worms in their own vermicompost bin – check your local area for sources for red wiggler worms. Troutier's Special Worm Farm (709-334-3531) in Bay Bulls sells red wiggler worms by the pound and will ship throughout Newfoundland and Labrador.

#### LOCATION

Choose a visible, accessible location within your room. Red wiggler worms prefer room temperature and don't like to be placed on cold floors, or near drafts, or heating sources.

**Tip:** Place a rug or piece of cardboard under your vermicompost bin to provide insulation on cold floors or place the bin on a table.

# COMPOSTING

## ACTIVITY

# Start a Worm Compost Bin CONTINUED

## 2) MAINTAIN YOUR BIN

Your vermicompost system requires little maintenance because the worms do the work for you. To maintain your vermicomposting system, simply give your worms what all living organisms need to survive – food, water, oxygen, and space.

**Note:** Your vermicompost system will eventually become its own mini-ecosystem with micro and macro organisms helping the worms turn your organic waste into nutrient-rich compost.

### FOOD

Your worms will eat all the organic material you add to the bin, including their bedding. You can add the same type of material you would add to an outdoor compost bin and avoid material like meat, fish, and dairy products as well as oils and fats.

Some types of organic waste you can add include:

- \* Fruit and vegetable peels, scraps, and cores
- \* Coffee grounds, filters, and tea bags
- \* Plant trimmings
- \* Paper products (limited)

How often you feed your worms will vary depending on how well the food is chopped, if the food is allowed to partially decompose before feeding, what type of food is being added, etc. A good rule of thumb is to add food waste when the last feeding is almost gone. This may vary from once a week to three times a week.

**Tip:** When feeding, if you find worms crawling up the sides or on the cover of the bin, gently brush them off and replace them in their bedding. This will be less likely to occur as the vermicompost system matures.

**Tip:** Citrus peels can be included but can take a bit longer to decompose, so they should be limited. Paper products like paper towels and napkins can be added but should also be limited to avoid overloading the bin.

### Add the Food Waste:

- 1 Designate a small container (like a large yogurt container) for collecting organic waste at camp.  
**Tip:** Chop up food waste and leave it in the collection container for a few days to make it easier for the worms to break down.
- 2 Pull back the bedding, creating a hole big enough to contain the waste.  
**Tip:** To avoid injuring the worms, use your hand or a gardening fork to pull back the bedding instead of a trowel or shovel.
- 3 Fill in the hole, covering the waste with at least two inches of bedding.
- 4 Mark the location of your feeding with a Popsicle stick so you will know where to add the next feeding.
- 5 The next feeding should be placed next to the last feeding so the worms can find it easily. This also allows you to see if the last feeding has been consumed.

**Tip:** If you picture the top of your bin as a grid, you will want to vary the feeding from square to square until you make your way around the bin.



## ACTIVITY

# Start a Worm Compost Bin CONTINUED

### WATER

Keep the bedding about as moist as a wrung-out sponge. The bedding will likely get all the moisture it needs from the organic waste. If the bedding is dry, add water (a spray bottle works well). If the bedding is too wet, add some more paper and/or peat moss.

### OXYGEN

Fluff up the bedding from time to time to increase the flow of oxygen in your bin. The action of worms tunneling around the bin will also help keep the soil loose and improve air flow.

### SPACE

Red wigglers reproduce quickly. Before long, you will begin to notice brownish-yellow or brownish-red, football-shaped cocoons, each about the size of the tip of a match. These are worm cocoons! When the cocoons hatch, 2-5 baby worms will emerge. You will notice baby worms in folds of paper and softer pieces of partially decomposed food. They will be small (less than an inch long), white and thin – looking like little white threads.

**Tip:** If you notice your vermicompost bin becoming overcrowded, remove some worms and use them to start another vermicompost bin.

## 3) HARVESTING YOUR VERMICOMPOST

Your vermicompost bin will be ready to harvest in as little as 3-6 months. You will know when your vermicompost is ready to be harvested when it is dark and crumbly and none of the original bedding or food scraps are visible.

**Note:** If left too long, finished compost can become toxic to your worms, so try to harvest your vermicompost bin on a regular basis.

### HARVEST THE COMPOST

- 1 Under bright light, empty the contents of your bin onto a large piece of plastic (a flattened garbage bag works well).
- 2 Divide the vermicompost into about eight piles and form each pile into a pyramid shape. Let the pyramids sit for a while as the worms naturally make their way away from the light to the bottom of the pyramids.  
**Tip:** Take this opportunity to mix up a new batch of bedding and add it to your bin.
- 3 With your hands, start with the first pyramid, scraping the compost up along the sides and off the top. Place the harvested compost in a separate container. Continue scooping compost off the first pyramid (picking out stray worms as you go) until you begin to see a large number of worms. Reshape the pile into a pyramid and move on to the next.
- 4 Continue this process until each pyramid is complete. By that time, the worms in the first pyramid will have moved closer to the bottom and you can begin scraping off the compost again. Continue this process until all you are left with are eight small piles of mostly worms in a small amount of the original vermicompost.

### USE YOUR HARVESTED COMPOST

You've successfully turned your camp's organic waste into compost! Now it's time to complete the cycle by using the finished vermicompost to help your plants grow.

Here are some ideas you can try:

- \* Use vermicompost to top-dress indoor plants.
- \* Use vermicompost on your garden – mix it into the soil or top-dress plants.
- \* Experiment by using vermicompost on some potted plants and regular potting mix on the others. Try different mixes and see which plants thrive.

# COMPOSTING

## ACTIVITY

# Supernatural Sorting

TIME  
GROUP SIZE  
AUDIENCE

10-15 minutes  
2-20 participants  
5-12 years

## DESCRIPTION

A game of Supernatural Sorting to help the earth work its magic! Participants must sort through the different types of waste and decide whether to toss them in the “green magic bin”, “the brown magic bin”, or the “garbage bin”.

## MATERIALS

- \* Green magic images (provided)
- \* Garbage images (provided)
- \* Green magic bin (x 2)
- \* Garbage bin (x 2)
- \* Brown magic images (provided)
- \* Bean bags (x 30)
- \* Brown magic bin (x 2)
- \* Pylons (or reused pop bottles) (x 4)

## KEY MESSAGES

- \* We can compost organic waste like food scraps and yard waste.
- \* Some types of organic waste should not be composted.
- \* Items to avoid composting are meat, fish, dairy, fats, greases, and oils.
- \* Green waste is fresh, moist, and high in nitrogen – important for the growth and reproduction of decomposer organisms.
- \* Green waste includes fruit and vegetable waste, fresh grass clippings, and tea leaves.
- \* Brown waste is dry, absorbent, and high in carbon – an important energy source for decomposer organisms.
- \* Brown waste includes stale bread, leftover pasta, paper, shredded paper, and dried leaves.
- \* Building a compost pile with a mix of browns and greens is important for decomposer organisms

## MANAGEMENT SKILLS

- \* Fasten the provided images to the bean bags.
- \* For participants to enjoy the game, they must first know which types of waste are considered “green magic”, which types of waste are considered “brown magic”, and which types of waste should go in the garbage.
- \* Participants must be divided into two teams and each team should have their own set of bean bags and bins.
- \* Mark the throwing line with the pylons (or pop bottles).
- \* A facilitator will need to be with each group to collect items that miss the bins.

CONTINUED ON BACK

## ACTIVITY

# Supernatural Sorting CONTINUED

## PROCEDURE

### STEP 1

Explain the activity to the participants: Composting happens in nature all around us all the time. But to help nature out and to speed it up, we need to add a little bit of magic. It's time to do some Supernatural Sorting to help nature recycle our organic waste into compost. Green waste helps decomposers grow and reproduce. We'll put the green waste in the green magic bin. Brown waste helps decomposers get the energy they need to break down waste. We'll put the brown waste in the brown magic bin. Both the green and the brown waste go in a compost bin together where decomposer organisms help turn it into compost that helps new plants grow. That's organic magic! Some things aren't going to help the magic and might even cause problems. We'll put those things in the garbage bin instead of the compost bin.

### STEP 2

Set three bins up for each team. Divide the group into two teams and have them stand behind a line (use tape) that is at least 5 paces away from the bins.

### STEP 3

Place each set of organic waste items (bean bags) at the front of each line.

### STEP 4

Tell the participants that they must pick up one piece of organic waste and decide if it should go in the green magic bin, the brown magic bin or the garbage bin.

### STEP 5

Once they decide, they must toss the item into the proper bin. If they miss, the facilitator will put the item back at the front of the line. The participant will go to the back of the line until it is their turn to try again.

### STEP 6

Once each team has sorted all the items in their pile, they are finished. As a competitive option, you can make it a race to see which team finishes first.

### STEP 7

At the end of the game, go through each item to make sure it was placed in the correct bin. Repeat the activity as much as you like.

Resources for this activity are on the following pages.

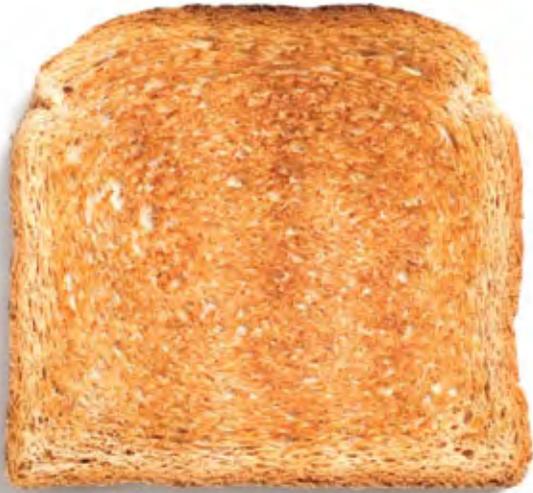


**RESOURCES | Supernatural Sorting**



**cheese \* canola oil \* fish \* pizza \* beef**

**RESOURCES | Supernatural Sorting**



**toast \* leaf \* noodles \* paper bag \* shredded paper**

**RESOURCES | Supernatural Sorting**



**grass \* apple core \* banana peel \* tea bag \* carrots**



# COMPOSTING

## CRAFT

# Organic Magic Bags

TIME  
GROUP SIZE  
AUDIENCE

15-20 minutes  
2-20 participants  
5-12 years

## DESCRIPTION

Participants make a mini composter using a plastic bag to see how organic material breaks down to become compost.

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## MATERIALS

- \* Plastic freezer bag (x 20)
  - \* Twist tie (x 20)
  - \* Water spray bottle (x 4)
  - \* Bucket of chopped green waste
  - \* Bucket of shredded brown waste
  - \* Bucket of garden soil
  - \* Organic Magic Bag Instruction Sheet (sample provided) (x 20)
- 

## KEY MESSAGES

- \* We can compost with help from decomposer organisms.
  - \* Decomposer organisms need food, water, shelter, and oxygen to survive.
  - \* Decomposer organisms need a mix of “green” and “brown” waste.
  - \* Green waste is fresh, moist, and high in nitrogen – important for the growth and reproduction of decomposer organisms.
  - \* Green waste includes fruit and vegetable waste, fresh grass clippings, and tea leaves.
  - \* Brown waste is dry, absorbent, and high in carbon – an important energy source for decomposer organisms.
  - \* Brown waste includes shredded paper and dried leaves.
  - \* Adding compost to the soil makes the soil healthy, which helps plants grow.
- 

## MANAGEMENT SKILLS

- \* Participants should be seated around a table to complete this activity.
  - \* Before beginning, the facilitator should demonstrate the process while giving the instructions.
  - \* Because it will take 4-6 weeks for the organic material to break down, an instruction sheet will be included to help parents or guardians complete the activity with their child.
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CONTINUED ON BACK

## CRAFT

# Organic Magic Bags CONTINUED

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### PROCEDURE

#### STEP 1

Go through the different types of waste explaining the difference between brown and green waste. Talk about some types of organic material that we shouldn't compost. Also explain that we have chopped the waste up into small pieces to help it break down faster.

#### STEP 2

Explain that we must add garden soil because we need decomposer organisms to help the material break down. In a backyard compost bin, the decomposers organisms will come up from the ground.

#### STEP 3

Give each participant a freezer bag and twist tie. This is their mini composter.

#### STEP 4

Give each participant a small amount of green waste, brown waste, and garden soil.

#### STEP 5

Instruct the participants to put a handful of garden soil in the bag. This puts decomposer organisms in the bag.

#### STEP 6

Instruct the participants to put a handful of brown and a handful of green waste in the bag. This gives the decomposers both of the types of food they need to survive.

#### STEP 7

Instruct the participants to spray enough water in the bag to make the mixture as moist as a wrung out sponge (not too wet and not too dry). This gives decomposer organisms the water they need to survive.

#### STEP 8

Instruct the participants to fasten the top of the bag with a twist tie. Then tell the participants to massage the bag to help mix up the brown and green waste and help move the oxygen and the soil around. This is like turning a backyard compost pile. This gives decomposer organisms the oxygen they need to survive.

#### STEP 9

Tell the participants that it will take about 4-6 weeks for the decomposers in their mini composter to turn the organic waste into compost.

#### STEP 10

Instruct the participants to massage the bag each day and to open the bag every second day to give decomposer organisms a fresh supply of oxygen.

#### STEP 11

Give each participant an instruction sheet to take home with their mini composter.

Resources for this activity are on the following pages.



## RESOURCES | Organic Magic Bag Instructions

**This mini composter will turn organic waste into healthy compost in just 4-6 weeks. It's organic magic in a bag!**

**To help the magic along, please follow these steps:**

- STEP 1:** Massage the bag every day.
- STEP 2:** Open the bag every second day for about 6 hours (to add oxygen).
- STEP 3:** When the stuff inside looks dark and crumbly and has a nice earthy smell, it's ready to use. Add the compost to your plants and watch them grow!

**This mini composter will turn organic waste into healthy compost in just 4-6 weeks. It's organic magic in a bag!**

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