Session 3: Compost Stew

Program Outline

A. Gathering Activity: KWL Sheet What's in Compost? KWL (20 min.)
B. Welcome back (5 min.)
C. Reading: ***Compost Stew*** (15 min.)
D. Hands-on Horticulture activity: Making Soil (15 min.)
E. Wrap-up (5 min.)

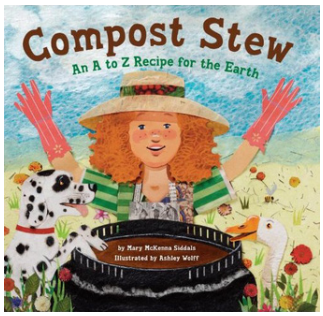
Extra Advance Preparations:

Collect a good sample of mostly-rotted compost with some identifiable components, such as egg shells, apple cores, fruit rinds, peanut shells, etc. Kids of all ages get particularly excited about compost that contains a healthy population of living creatures, such as flies, grubs, snails, earwigs, sowbugs, beetles, earthworms, maggots, or centipedes.

Supplies:

- Sign-in sheets
- Nametags
- Compost in a clear container (composted plant product, not manure or other composted animal waste, used for 2 activities)
- ***KWL Sheet*** from Session 2 & new ***KWL Sheet*** for Session 3
- Crayons, pencils, or markers
- ***Compost Stew*** storybook
- Several large, shallow bowls or pans, such as a disposable roasting or cake pan
- Garden soil
- Clear plastic container
- Perlite or vermiculite
- Peat moss
- Measuring cups
- Plastic trowels
- Disposable cake pans with clear lids
- Magnifying glasses
- Clear zip-top food storage bag for each child (gallon size)
- Marker
- Trash bags
- Hand whisk broom and dustpan
- Copies of take-home sheet 3 ***Where I Live and Play: Soil***
- Copies of ***Grow On!*** for Session 3
- ***What's in the Bin?*** Activity Sheet

MG SPROUTS
Horticulture Activities for Kids



Compost Stew
by Mary McKenna Siddals, illustrated by Ashley Wolff . Tricycle Press; © 2010. ISBN-13: 978-1582463162

From the inside cover*: From eggshells to wiggly worms, this delightful recipe in bouncy verse features items--some familiar and some not so--that are fit for the home compost bin and will nourish Mother Earth.*

Themes: recycling, composting.

BIG Idea: Gardeners can help the earth by composting to make good soil for plants to grow in.

Reading vocabulary

stew

rot

clod

recipe

A. Gathering Activity: KWL Sheet – What's in the Compost? (20 minutes)

Have one volunteer at the sign-in table to greet participants and parents, and help fill out name tags. Have the volunteer collect any journal sheets as participants check in. Hand out the KWL sheets saved from Session 2 on insects and have participants take a few minutes to finish the final section, "L-learned." When they have completed that section, collect those sheets and give them the new sheet for Session 3. Then, place a clear container of plant-based compost at each table or group (crystal-clear recycled plastic salad boxes work really well). Have ***What's in the Compost?*** KWL sheets available for each child, and one set of compost ingredients cards for each group or table. Have a volunteer assigned to each group to help guide the participants. Using the clear box of compost, ask them to look at the compost and imagine what the original materials that went into the compost might have been. Ask them to write and/or draw those on their worksheet. If you don't have a source of compost with a variety of organisms in it, cards available in the SPROUTS Resources section may be used for ideas. (Usually any kind of living creatures in the compost will inspire a lot of inquiry and discussion, so allow extra time if your compost is teeming.)

B. Welcome back (5 minutes)

Welcome back to MG SPROUTS! Discuss last week's book and activities. *Last week, we read about* ***Jack's Garden*** *and talked about diversity in the natural world.* Hold up a SPROUTS Journal page ***Where I Live and Play: Insects and Other Living Things*** and ask if anyone found interesting things to write about in the take-home sheets for their journal. Talk about this week's book, ***Compost Stew***, and this week's hands-on activities. Remind participants that they will have a new journal page to work on between sessions and ask them to collect a handful of soil in a sandwich bag to bring next week to compare.

C. Reading Aloud:Compost Stew (15 minutes)

Summary: Children brew a stew of compost using a recipe that includes A-to-Z ingredients. Read the title and author's name. Ask some engaging questions. What is compost? What is a recipe? Encourage the children to comment and predict what will happen in the story. Using the dry erase board, select a few of the vocabulary words to discuss. Ask participants to listen for them in the story and respond when they hear them.

Read the book aloud, pausing briefly along the way to discuss the book with the group. Be sure to include the author's note adjacent to the title page and the chef's note at the end of the story. Conclude the reading with a short discussion about the book. Some questions you might ask to spur discussion are:

- *What are some of the items that went into the compost stew?*
- *What will happen to the items or ingredients that are in the compost?*
- *How does composting help our planet?*

D. Hands-On Horticulture: Making Good Soil (15 minutes)

Hands-On Horticulture: Making Good Soil
Our BIG Idea this week is that plants grow in soil and gardeners can help the earth by composting to make good soil for plants to grow in. Our book, ***Compost Stew****, tells us about lots of things that can be composted, or broken down, and added back to our garden soil. When we add compost to our garden soil, several good things happen. Plants need soil that is rich in nutrients and that also holds a reasonable amount of water. Plant roots need oxygen so that they do not suffocate. Today, we're going to make some good soil for growing plants.*
MATERIALS • Several large, shallow bowls or pans, such as a disposable roasting or cake pan • garden soil • compost (composted plant product, not manure or other composted animal waste) • perlite or vermiculite • peat moss • measuring cups • spoons • clear zip-top food storage bag for each child (gallon size is best)

Preparation: • Open bags of product and pour each into its own bowl or pan. • Provide each child with a measuring cup or scoop and a bag.	*Our story this week told us about all kinds of things we can recycle to create compost. What kinds of things do you have at your house that could be composted?* *What do we use compost for?* (Talk about uses and benefits of compost.)
1. Start with regular garden soil.	*Let's look at some soil from my garden (pick up the pan of soil and use spoons to stir and pick through). What do you see in the soil?* (Talk about any critters that you see, pieces of leaf litter or sticks, rocks, etc.) *Can you describe the soil? Is it rough or soft? Is it all the same size?*
2. Examine compost sample.	(Pick up the pan of compost and use spoons to stir and pick through). *What do you see in the compost?* (talk about any critters that you see, pieces of leaf litter or sticks, rocks, etc.) *Can you describe the compost? Is it rough or soft? Is it all the same size?*
3. What happens when we add compost to soil?	*We know that compost is good for our environment because it turns trash into treasure. Compost provides a little bit of nutrients to our plants. It improves the soil texture and its ability to hold onto moisture and nutrients. It also helps loosen a heavy soil so that plant roots can grow. We add compost back to our garden soils to help our plants.*
4. Let's make our own potting soil.	*We can make some gardening soil for growing plants. A good mix contains some soil, some compost, and some other ingredients that help make sure the mix drains well enough to keep roots healthy, but that can also hold onto and provide nutrients to the plants.*
5. Give everyone a bag. Add soil and compost.	*We'll start with a bag.* (Give each child a zip-top bag.) *Let's write our names on our bag.* (Use marker to label bags, then help children open the bags.) *Then, we'll each get a scoop of soil and put it in our bag.*(Use cups to scoop soil into each bag.) *Next, we'll add a scoop of compost.* (Repeat with cups to add compost to each child's bag.)
6. Add perlite for drainage.	*For our soil to drain well, we need to add something that will help keep the soil mix light and have lots of air pockets. We are going to use perlite. This is a material that helps our mixes drain. Perlite is actually a type of rock that is heated at very high temperatures to the point that it pops into these little white balls. We can get the balls in small and large sizes, depending on what we are trying to do. Potting soil needs a larger size. Let's get a scoop of perlite and add it to our bag of potting soil.* (Use cups to scoop soil into each bag).
7. Add peat moss.	*Last, we are going to add peat moss to our potting soil. This gives us volume without a lot of extra weight. Roots find it easy to grow through the peat moss, and it will hold some water.* (You can demonstrate how much water a peat pellet will absorb or wet some peat moss and squeeze a handful over a bowl.) *It doesn't hold a lot of nutrients for the plants, so it works well when combined with these other ingredients.*

8. Mix it up.	*We have all of our soil ingredients in the bag. Let's seal the bag and mix it up.* (Help the children seal the zip-top bags, then squeeze and shake to mix up the ingredients. When done mixing, open the bags and touch the mix, talking about it.) *What does our potting soil look like? Do you think plants will like to grow in this mix?*
9. Clean Up	*We're going to seal our bags and save our potting soil for another activity. Can you help me tidy our work area?* (Re-seal the bags and collect for next activity. Have children collect cups and spoons and stack neatly.)

Modifications and Tips	
TIME AND/OR ABILITY	LESS
Making Good Soil	• Prepare the potting mix ahead of time and let students scoop some into bags that they have labeled with their name. • Instead of children scooping materials, have them form a line and allow volunteers to add ingredients to the bag.
TIME AND/OR ABILITY	MORE
	Talk about what might happen if you added different quantities of ingredients. Ask participants to predict what might happen to the plants grown in different mixes.

E. Wrap-up (5 minutes)

Wrap up the session with a quick summary of the day's activities. The discussion might go something like this: *Today we finished our KWL sheet about insects. Did anyone find insects at home?* (Briefly discuss.) *Who can tell me what plants grow in? Yes, soil. So, the first part of our BIG Idea this session is that plants grow in soil. Remember in* ***Jack's Garden*** *we saw the drawing of the beautiful soil and the worms and other things that live in the soil? The second part of our BIG Idea is that gardeners can help the earth by composting to make good soil for plants to grow in. We looked at compost and started a new KWL sheet about compost. What did you find the most interesting about the compost we looked at today? Then, we read our book about composting and all of the ingredients that went into the recipe for compost stew. Does anyone remenber the ingredients? Who can tell me how composting helps the earth?* (Briefly discuss.) *We made our own soil for plants today. Why did we do that?* Remind them about their journal take-home sheets. Ask participants to share where they might find some soil to observe and record on their sheet. Ask them to collect a sandwich bag of soil and bring it to the next session to share with the group and compare.

Next week we will talk about The Ugly Vegetables

Children go home with: ***My SPROUTS Journal*** take-home sheet 3 (***Where I Live and Play: Soil***), Copies of ***Grow On!*** for session 3, and ***What's in the Bin Activity Sheet***.

Session 3 Notes:

Review

Next week

For follow up