

The
NATURE OF
TEACHING



Food Waste Solutions

LESSON PLAN

This unit of two lessons teaches students reasons and solutions for food waste at school and home.

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ESTIMATED TIME

Two 30-minute lessons

VOCABULARY

- Food waste
- Solutions
- Composting
- Decomposer
- Compostable

OBJECTIVES

1. Describe reasons for food waste at school and home.
2. Describe examples of food waste solutions at school and home.
3. ****Optional**** Conduct a food waste audit.

NEXT GENERATION SCIENCE STANDARDS:

Lesson 2: 5-LS2-1

CORE STANDARDS:

Lessons 1 and 2 English/Language Arts

<u>RF.2.3</u>	<u>W.2.8</u>	<u>L.3.3</u>	<u>SL.4.4</u>	<u>L.5.1</u>
<u>RF.2.4</u>	<u>RF.3.4</u>	<u>L.3.4</u>	<u>L.4.1</u>	<u>L.5.3</u>
<u>SL.2.1</u>	<u>SL.3.1</u>	<u>L.3.6</u>	<u>L.4.4</u>	<u>L.5.4</u>
<u>SL.2.2</u>	<u>SL.3.2</u>	<u>W.3.3</u>	<u>RF.5.3</u>	<u>L.5.6</u>
<u>SL.2.4</u>	<u>SL.3.3</u>	<u>RF.4.3</u>	<u>RF.5.4</u>	<u>W.5.10</u>
<u>SL.2.6</u>	<u>SL.3.4</u>	<u>RF.4.4</u>	<u>SL.5.1</u>	
<u>W.2.3</u>	<u>L.3.1</u>	<u>SL.4.1</u>	<u>SL.5.2</u>	

Lessons 1 Math-with optional food waste audit

2.OA.A.1; 2.MD.D.10; 3.MD.A.2; 3.MD.B.3; 4.MD.A.2

Lessons 2 Math

K.CC.B.4; K.CC.C.6; 6.RP.A.1

REQUIRED MATERIALS

- Two Food Waste Solutions for School Pre/Post-Test per student (see the Assessment tab for this unit on the Nature of Teaching website)
- Sticky notes (several per student)
- Two homemade peanut butter and jelly sandwiches, two pre-packaged peanut butter and jelly sandwiches, two reusable sandwich containers
- Two pre-packaged chip bags, two plastic/Ziploc bags of chips
- Two plastic/Ziploc bags of carrots, two pre-packaged containers of carrots
- Two plastic/Ziploc bags of sliced apples, two whole apples
- Two lunch bags, two paper lunch bags
- Two reusable drink containers, two disposable drinks
- One Food Waste Solutions for School infographic per student
- ****Optional**** EPA Guide to Conducting Student Food Waste Audits: A Resource for Schools
<https://www.epa.gov/sustainable-management-food/guide-conducting-student-food-waste-audits-resource-schools>
- Two Food Waste Solutions for Home Pre/Post-Test per student (see the Assessment tab for this unit on the Nature of Teaching website)
- One Food Waste Solutions for Home infographic
- Eight unpeeled carrots, eight apples
- Four clear cups
- Video: "Oh, the Things You Can Eat" (available at www.purdue.edu/nature)
- Video: "Classroom Compost" OR One Classroom Compost Instructions Sheet per student (available at www.purdue.edu/nature)
- Seven empty two-liter bottles
- Seven spray bottles with water
- One 50-pound bag of soil, seven containers for the soil
- Several sheets of recycled newspaper
- Seven large rubber bands
- Seven sheets of aluminum foil
- Four to six red worms per student
- One pie tin and cover per student
- One bag of organic soil
- Several sheets of newspaper
- One Care for Your Worm Bin Sheet per student
- Cut-out photos from Compostable and Non-Compostable Food Sheet

ACTIVITY ICONS

Use these icons — located at the top of each lesson plan — to indicate the disciplines to which certain activities belong. These disciplines include:



These lessons encourage students to discuss reasons for food waste at home and school and teach students about food waste solutions.

Lesson 1: Food Waste Solutions for School

This lesson encourages students to explore and discuss reasons and solutions for food waste at school.

VOCABULARY

- **Food waste:** food that is not eaten and gets thrown away.
- **Solution:** a way to overcome a problem.
- ****Optional** Food waste audit:** a way to learn how much food is being wasted.

WHY DO SOME PEOPLE WASTE FOOD IN SCHOOL?

Go through this list with students to teach them some reasons they or their friends might waste food at school.

- Students do not have enough time to eat lunch or must eat too early or late in the day.
- Students may have different energy levels and appetites; everyone gets the same portion size even though some kids are smaller than others and some need less energy.
- There are competing sources of food, such as a la carte options, classroom snacks, vending machines, and fundraiser treats.
- Some students are picky and dislike their school lunch (or parts of it), so they throw it away.
- Students may talk too much before eating.
- Students sometimes race through lunch to get outside to recess.

FOOD WASTE SOLUTIONS FOR SCHOOL:

Go through this list with students to teach them some ways to reduce food waste at school.

- If you eat an early lunch, eat a small breakfast before coming to school so that you are hungry by lunchtime.
- If you bring a lunch from home, pack only what you know you can eat.
- If you eat slowly and get a school lunch, only take the minimum amount of food; skip extra options like a la carte, extra fruit, desserts, fundraiser treats, or extra milks.
- Go through the lunch line slowly to make sure you only get food that you want.
- If you are not hungry, do not take a classroom snack or a party treat. If you want to take a classroom snack or a party treat but do not think you can finish a whole treat, ask a classmate to share one with you (e.g., half a cupcake).
- Always check the lunch calendar so you know for sure what lunch choice you want.
- Make your own lunch or tell your parents exactly what you want in your lunch.
- Use resealable containers and bags in your lunch box to save leftovers for later.

Lesson 2: Food Waste Solutions for Home

This lesson encourages students to explore and discuss reasons and solutions for food waste at home.

VOCABULARY

- **Food waste:** food that is not eaten and gets thrown away.
- **Solution:** a way to overcome a problem.
- **Compost:** decayed organic material (from nature, formed from carbon-based compounds) that is often used as plant fertilizer (to help plants grow).
- **Decomposer:** An organism that breaks down organic matter.
- **Compostable:** capable of breaking down naturally and being composted.
- **Vermicompost:** composting with worms.

FURTHER EXPLAINING COMPOST:

Use this section to explain why composting is important and how composting works to students. This information will be helpful during the Classroom Compost Bin Activity.

Composting is a way to recycle food waste instead of sending it to a landfill. If you cannot reduce or reuse food waste, the next best thing is to compost it. Composting food waste takes some time and effort, but you can use the finished product as a natural fertilizer to help plants in a garden grow. Composting food waste also keeps food waste out of a landfill, which is better for the environment. Anyone can compost, whether you live in an apartment or a house, or take your food scraps to compost at a friend's house. Keep food scraps in a bowl in the freezer between trips to the compost.

The Science Behind Composting:

Compost is created when decomposers like bacteria and fungi break down organic matter (food and yard waste) and turn that matter into soil. That soil can be used as a fertilizer for plants in a garden. There is a certain ratio of brown to green organic matter that is necessary to maintain healthy compost. Some sources say the best ratio is 30:1 brown to green.

You can find this information, as well as helpful composting visuals and different methods for composting, harvesting, and utilizing your compost here:

<https://api.ag.purdue.edu/api/DepotWS/File.ashx?t=f&i=55835>

Composting Tips:

Most food waste can be composted. But when creating a small compost bin or pile at home, one should avoid adding greasy cooked foods, meat, dairy, or processed foods that smell foul as they decompose. Stick to raw plant matter. Keep the compost damp like potting soil — but not too wet. Turn or stir the compost weekly for small bins and once or twice a year for large piles. Cover any newly added food waste with soil, paper, or plant matter.

For vermicomposting (with worms), avoid using clear containers (worms do not like light), do not stir, and do not add citrus.

FOOD STORAGE:

Use this section to explain to students what is meant by “proper storage.” This information will be helpful during the discussion about food waste at home.

We avoid spoilage in different ways when we store foods. We dry foods like pasta, beans, and cereal to eliminate water that bacteria need to live. Freezing foods like vegetables and meats freezes the water and keeps the food at a temperature where bacteria cannot work. Heating food kills bacteria and prevents it from re-entering the food. Adding sugar and salt to jams and meats removes water. Adding vinegar to pickled food prevents bacteria enzymes from digesting the food. Putting food in the refrigerator prevents bacteria from reproducing but DOES NOT kill bacteria that is already on food. (For example: If you leave chicken on the counter for several hours and put it back in the refrigerator, the refrigerator will not kill the bacteria already present.)

WHY DO SOME PEOPLE WASTE FOOD AT HOME?

Go through this list with students to teach them some reasons why people waste food at home.

- **Safety:** People are afraid to eat food past its best-by date.
- **Storage:** Inadequate storage or containers that are not air-tight or are not designed for freezing (see the bottom of containers to check if they are freezer safe). Inadequate storage also means storing food in the wrong locations.
- **Food habits:** Some people are picky or do not like leftovers.
- **Poor meal planning:** People buy more food than they need and make more food than they can eat.
- **Lack of education:** People do not know about expiration dates, meal planning, and storage.

FOOD WASTE SOLUTIONS FOR HOME:

Go through this list with students to teach them some ways to reduce food waste at home.

- Take small portions at meal times; you can always come back for more.
- Eat all the food you put on your plate or save it for later in a sealed container.
- Plan meals for the week before grocery shopping.
- Make a grocery list and only buy what is on the list. Plan your list around planned meals.
- Properly store food in sealed containers. Put it in the freezer if you will not use it for a while. Freezing prevents food from spoiling, even past its best-by date.
- Always try something at least twice. You might like it when you are older, even if you do not like it now.
- Reuse leftovers in new recipes.
- Eat parts of food that you would normally not eat (e.g., carrot tops and potato peels).
- Compost food waste in a compost bin or pile or donate food waste somewhere that will compost it, like a community garden.
- Sniff- or taste-test food past its best-by or expiration date to make sure it is really spoiled before throwing it away.

RESOURCES

Buszby, J. C. and J. F. Guthrie. 2002. Plate waste in school nutrition programs: final report to congress. Economic Research Service (ERS). https://www.ers.usda.gov/webdocs/publications/43131/31216_efan02009.pdf?v=41423

Compost fundamentals: aerobic decomposition. Washington State University. (http://whatcom.wsu.edu/ag/compost/fundamentals/biology_aerobic.htm).

Decay: bacteria and fungi. 2014. BBC. (http://www.bbc.co.uk/schools/gcsebitesize/science/add_gateway_pre_2011/greenworld/decayrev2.shtml).

M. Breulmann et al. "Polymers, Biodegradable" in Ullmann's Encyclopedia of Industrial Chemistry 2012 Wiley-VCH, Weinheim.doi:10.1002/14356007.n21_n01.

Love Food Hate Waste Campaign. <https://www.lovefoodhatewaste.com/what-to-do>

Save the Food Campaign. <https://www.savethefood.com/tips>

United States Department of Agriculture. Office of Chief Economist. (http://www.usda.gov/oce/foodwaste/resources/K12_schools.html).

MORE RESOURCES TO TEACH STUDENTS ABOUT FOOD WASTE:

Food Waste and Natural Resources unit: Teaches students about food production and that natural resources are limited. <https://ag.purdue.edu/extension/nature/Pages/Food-Waste-and-Natural-Resources-Lesson-Plans.aspx>

Food Waste and the Environment unit: Teaches students how food waste affects water quality, climate change, and wildlife.

What a Waste of Food unit: Teaches students about the food production system, the importance of trying new foods, and food storage. <https://ag.purdue.edu/extension/nature/Pages/Solutions-to-Food-Waste-Lesson-Plans.aspx>

Transporting Food Waste lesson plan: Teaches students about the effects of food transportation on the environment.

COMPOSTING RESOURCES

<https://www.planetnatural.com/composting-101/making/c-n-ratio/>: Explains the carbon to nitrogen ratio required for composting and ratios of a list of compostable materials.

<http://frugalgranola.com/2012/06/diy-compost-worm-bin/>: Explains how to keep a worm bin.

<https://www.redwormcomposting.com/reader-questions/mixing-your-worm-bin/>: A site on creating and maintaining a vermicompost bin.

<https://www.gardenguides.com/78829-maintain-good-compost-bin.html>: A site on maintaining a compost bin.

<https://ag.purdue.edu/extension/nature/Pages/Food-Waste-and-Natural-Resources-Lesson-Plans.aspx>: Purdue Extension informational resource on composting and vermicomposting.

LESSON 1 FOOD WASTE SOLUTIONS FOR SCHOOL

Food Waste Solutions LESSON PLAN



This lesson encourages students to explore and discuss reasons and solutions for food waste at school.

ESTIMATED TIME

30 minutes — not including the food waste audit

REQUIRED MATERIALS

- Two Food Waste Solutions for School Pre/Post-Test per student (see the Assessment tab for this unit on the Nature of Teaching website)
- One Food Waste Solutions for School Infographic per student (see related links under Food Waste formal curriculum at www.purdue.edu/nature)
- Sticky notes, several per student
- Two homemade peanut butter and jelly sandwiches, two pre-packaged peanut butter and jelly sandwiches
- Two reusable sandwich containers
- Two pre-packaged chip bags, two plastic/Ziploc bags of chips
- Two plastic/Ziploc bags of carrots, two pre-packaged containers of carrots
- Two plastic/Ziploc bags of sliced apples, two whole apples
- Two lunch bags, two paper lunch bags
- Two reusable drink containers, two disposable drinks
- **Optional** EPA Guide to Conducting Student Food Waste Audits: A Resource for Schools: <https://www.epa.gov/sustainable-management-food/guide-conducting-student-food-waste-audits-resource-schools>

PROCEDURE

1. Before beginning the lesson: Download the Food Waste Solutions for School Infographic from the Nature of Teaching website (www.purdue.edu/nature). Print one per student.
2. Ask students: "What is food waste? Are leftovers food waste?" (No, not if they're eaten.) "Are inedible scraps and bones food waste?" (No, because they cannot be eaten.) Make sure that students know that the food waste they are learning about is food that could be eaten but gets thrown away instead.
3. Have each student complete the Food Waste Solutions for School Pre-Test (see the Assessment tab for this lesson on the Nature of Teaching website).
4. Ask students: Why do you think some people waste food at school? Write their ideas on the board, or have students write their ideas on sticky notes if no board is available. Provide examples from Teacher Materials.
5. Ask students: How can we waste less food at school? Write their ideas on the board or use sticky notes. Provide examples from Teacher Materials.
6. Introduce the concept of food waste solutions (see Teacher Materials).
7. Have students complete the Waste-Free Lunch Game (see below).
8. Have each student complete the Food Waste Solutions for School Post-Test (see the Assessment tab for this lesson on the Nature of Teaching website).
9. Review with the students by asking: What are some things that you can do at school to reduce food waste? How can you make a waste-free lunch?
10. Give each student a Food Waste Solutions for School Infographic to share with a student outside of their class. Let students know that their homework is to share what they have learned with another student outside of their class.
11. Follow up the next day by asking students how many of them shared information on food waste with another student and how these students responded.
12. **Optional Extension** Teach students about the steps of conducting a food waste audit using the EPA Guide to Conducting Student Food Waste Audits: A Resource for Schools: <https://www.epa.gov/sustainable-management-food/guide-conducting-student-food-waste-audits-resource-schools>. This resource provides visual aids, step-by-step instructions for conducting an audit, and printable student log sheets and interview guides. After the audit, have students communicate the results of the audit to the rest of the school through posters, school announcements, or other creative means.



DIRECTIONS FOR WASTE-FREE LUNCH GAME

1. On two desks in the front of the classroom, randomly lay out two reusable containers of carrots, two pre-packed containers of carrots, two containers of sliced apples, two whole apples, two pre-packaged chip bags, two reusable containers of chips, two reusable sandwich containers with peanut butter and jelly sandwiches, two pre-packaged peanut butter and jelly sandwiches, two reusable drink containers, two disposable drinks, two reusable lunch bags, and two paper lunch bags.
2. Divide the class into two teams. One half of the class is Team 1; the other half is Team 2.
3. Call one student from each team up to the desks at the front of the room for each round.
4. Have students pack a waste-free lunch (see Teacher Materials) as fast as they can. Have students defend their choices.
5. The student that builds the most waste-free lunch in the shortest time wins a point for their team.
6. The team with the most points after each student has taken a turn wins the game.
7. The winning teams should use: lunch bags (not paper lunch bags), peanut butter and jelly sandwiches in reusable containers (not the pre-packaged sandwich), carrots in reusable containers (not pre-packaged containers), chips in a reusable container (not pre-packaged containers), sliced apples in a plastic/Ziploc bag (not whole apples), and reusable drink containers (not disposable drinks). These options will produce the least amount of waste.
8. ****Optional Extension**** Hide game materials around the classroom so students must find the materials and make decisions on which are the most waste-free.

LESSON 2 FOOD WASTE SOLUTIONS FOR HOME

Food Waste Solutions LESSON PLAN



This lesson encourages students to explore and discuss reasons and solutions for food waste at home.

ESTIMATED TIME

30 minutes

REQUIRED MATERIALS

- Two Food Waste Solutions for Home Pre/Post-Test per student (see the Assessment tab for this unit on the Nature of Teaching website).
- One Food Waste Solutions for Home Infographic per student (see related links under Food Waste formal curriculum at www.purdue.edu/nature)
- Sticky notes, several per student
- Eight unpeeled carrots, eight apples
- Four clear cups
- Video: "Oh, the Things You Can Eat"
- Video: "Classroom Compost" OR one Classroom Compost Instructions Sheet per student.
- Seven empty two-liter bottles
- Seven spray bottles with water
- One 50-pound bag of soil, seven containers for the soil
- Several sheets of recycled newspaper
- Seven large rubber bands
- Seven sheets of aluminum foil
- Four to six red worms per student
- One pie tin and cover per student
- One bag of organic soil
- Several sheets of newspaper
- Cut-out photos from Compostable and Non-Compostable Food Sheet

PROCEDURE

1. Before beginning the lesson: Download the Food Waste Solutions for Home Infographic from the Nature of Teaching website (www.purdue.edu/nature). Print one per student. Download the video "Oh, the Things You Can Eat" and the video "Classroom Compost Bin" from the Nature of Teaching website.
2. Ask students: "What is food waste? Are leftovers food waste?" (No, not if they're eaten.) "Are inedible scraps and bones food waste?" (No, because they cannot be eaten.)

Make sure that students know that the food waste they are learning about is food that could be eaten but gets thrown away instead.
3. Have each student complete the Food Waste Solutions for Home Pre-Test (see the Assessment tab for this lesson on the Nature of Teaching website).
4. Ask students: Why do you think some people waste food at home? Write their ideas on the board, or have students write their ideas on sticky notes if no board is available. Provide examples from Teacher Materials.
5. Ask the students: How can we waste less food at home? Write their ideas on the board or use sticky notes. Provide examples from Teacher Materials.
6. Go over the Food Storage section in the Teacher Materials.
7. Introduce the concept of food waste solutions (see Teacher Materials).
8. Guide students through Activity 1: Oh, the Things You Can Eat! (see below).
9. Introduce the terms "compost," "decomposer," and "compostable." Go over the Further Explaining Compost section in the Teacher Materials. **Optional** Use the Purdue Extension presentation in the Teacher Materials for visual examples.
10. Have each student complete the Food Waste Solutions for Home Post-Test (see the Assessment tab for this lesson on the Nature of Teaching website).
11. Guide students through Activity 2: Classroom Compost Bin (see below). Possible Extension exercise: Introduce the term "vermicompost" and have students complete the Vermicompost Extension (see below).
12. Review with the students by asking: "What are some things that you can do at home to reduce food waste? How can you use food that you would normally throw away?" (e.g., peelings, carrot tops, etc.)
13. Give each student a Food Waste Solutions for Home Infographic to take home and share with their families. Let students know that their homework is to share what they have learned with their families.
14. Follow up the next day by asking students how many of them shared information on food waste with their families. Ask them if their families plan to use any of the solutions and why.

DIRECTIONS FOR ACTIVITY 1: OH, THE THINGS YOU CAN EAT!

1. Before class: Use the cutting board and paring knife to cut four unpeeled carrots into enough pieces for every student. Put the upper-end pieces into one clear cup. Label this "Cup 1." Peel four new carrots with the vegetable peeler and cut them into enough pieces for every student. Put the upper end pieces and the peels into a second clear cup. Label this "Cup 2." Cut four apples into enough pieces for every student. Do not remove the core. Put the stems and seeds into a third clear cup. Label this "Cup 3." Cut four apples into enough pieces for every student. Completely cut out the cores and peel the skins off the apples. Put the stems, seeds, peelings, and core sections into a fourth clear cup. Label this "Cup 4."
2. Have students watch the video "Oh, the Things You Can Eat!," found on the Nature of Teaching website (www.purdue.edu/nature).
3. Show the class Cups 1-4 and ask them to describe the differences they see. Ask students: "Which cups have more food waste and why?"
4. Pass out one piece of each food type to the students and ask students to describe the differences they taste. "Is one carrot or apple piece better than the other? Why? Is there a way it could be better without wasting as much food as cups 2 and 4?"
5. Explain how the food waste could be turned into something else edible (e.g., using the carrot waste to make vegetable stock or baking the apple skins with cinnamon and sugar for a delicious dessert).
6. Save the food waste for Activity 2: Classroom Compost Bin.

DIRECTIONS FOR ACTIVITY 2: CLASSROOM COMPOST BIN

1. Show students photos of the compostable and non-compostable food.
2. Build compost bins with the students in small groups. Share composting tips and information from the Further Explaining Compost section of the Teacher Materials with students.
3. **For older students** Explain that composting requires a ratio of more carbon to nitrogen to break down well. Typically, 25:1 or 30:1 is the best ratio of carbon to nitrogen.
4. **For younger students** Ask whether we added more soil or more food waste to the compost. Explain that we added more soil than food waste to help the compost break down or decompose easier.
5. Show students examples of compostable and non-compostable food.
6. Make sure to discuss with students that while composting is a great way to recycle nutrients from food waste for things like gardens, composting should only be used as a last resort after reducing and reusing food from being wasted has already happened. This is like recycling; recycling is much better than throwing recyclables in the trash but should only be done as a last resort after reducing and reusing has already happened.
7. **Optional Extension** Have students view their compost bins weekly, write, and draw in journals, describing what they see in the compost bin and how things are breaking down. Have them estimate the weight of the compost bins, then weigh them weekly and record the predicted and actual weights in their journals.

VERMICOMPOST EXTENSION (CREDITED TO KIRSTEN SERRANO FROM SMALL WONDER FOODS):

1. Give each student a pie tin and pie tin cover. Have them use their pencil to poke a few small holes in the tops of their pie tins covers.
2. Have students scoop an inch-deep layer of organic garden soil into the pie tins.
3. Have students tear newspaper into strips and soak those strips in tubs of water. Then put those newspaper strips into their pie tins.
4. Give each student four to six worms and a few small, cut-up pieces of compostable food to place in their pie tins.
5. Give each student a Care for Your Worm Bin Sheet to take home with their vermicompost bins.

ACTIVITY COMPOSTABLE AND NON-COMPOSTABLE FOOD

Food Waste Solutions WORKSHEET

The teacher can print and cut these images out and show each individual one to the class, asking which ones are compostable. Fruit, vegetables, grains, and yard waste are all compostable. Plastic and candy wrappers are not compostable because they are not biodegradable. Eggs, meat, dairy, and fish are not compostable inside because they smell when they decompose, but they can be composted outside in a contained bin



ACTIVITY COMPOSTABLE AND NON-COMPOSTABLE FOOD

Food Waste Solutions WORKSHEET



CLASSROOM COMPOST INSTRUCTIONS

- A. Lay a sheet of recycled paper or newspaper on your desk to keep it from getting too messy. Build your compost bin on top of the paper.
- B. Scoop four cups of soil into the bottom of a two-liter bottle.
- C. Lightly spray the soil with water.
- D. Pour the food waste from “Oh, the Things You Can Eat!” on top of the soil. This food waste is your green layer and is very rich in nitrogen.
- E. Scoop one cup of soil on top of the food waste. Lightly spray the soil with water if it is dry.
- F. You can also add some shredded dried leaves or paper on top of the soil. This and the soil are your brown layers and are very rich in carbon.
- G. Cover the bottle with aluminum foil or plastic wrap and seal it to the bottle with a rubber band. Punch a few tiny holes in the aluminum foil to let the compost breathe. Students or instructors can do this with pencils or scissors.
- H. Remove the cover and stir the compost with a spoon every week to circulate air through the compost.

STEP B



STEP F



STEP G



CARE FOR YOUR WORM BIN:

Worm type: Red wigglers

Moisture: Keep environment moist, not soaked (you can spray with a mister when feeding)

Temperature: 55-77° Fahrenheit (ideal)

Light: Keep bin dark

Feed: Vegetable and fruit scraps, coffee grounds

NO: processed food, citrus, meat, oils, onion

Don't overfeed them. Each worm will eat about half its body weight daily.

Fluff: Gently mix your farm once or twice a week to keep air circulating.

For more information and instructions on how to upgrade your worm bin, see:

<http://frugalgranola.com/2012/06/diy-compost-worm-bin/>

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