

## Topic: COMPOSTING

**MAIN MESSAGE:** Composting allows us to reduce our trash and help our community grow in a healthy, sustainable way.

### VOCABULARY:

- 1) **Waste** - A material that is thrown away or discarded.
- 2) **Organism** - An individual living thing.
- 3) **Composting** - The process of breaking down organic materials into nutrient-rich compost that can be used as fertilizer for plants and flowers.
- 4) **Organic Materials** - Living things that come from the remains of dead plants and animals.
- 5) **Nutrient** - Something that plants, animals and people need to live and grow.
- 6) **Bulking Agent** - Bits of material that create space and thus, airflow, within a compost heap.
- 7) **Fertilizer** - A product that adds nutrients to soil, which helps grow healthy plants. Fertilizer comes in organic (compost) and inorganic (synthetic) versions. The synthetic ones are made using petroleum, a finite natural resource. Organic compost is a more sustainable fertilizer as it can be made over and over again from plants, flowers and food scraps.
- 8) **Vermicompost** - A process that uses worms to break down food scraps and recycle them into compost.
- 9) **Reduce** – To make smaller or less in amount, degree or size.
- 10) **Waste-to-Energy Facility** - A facility that burns trash to produce steam or electricity.
- 11) **Mulch** - Ground up trees and branches that are used in gardens and landscapes to conserve moisture, improve soil health and reduce weed growth.
- 12) **Food scraps** - Leftover bits of food that are uneaten, or that resulted from food preparation. These can come from your home or businesses such as grocery stores, restaurants and schools. Food scraps are an example of organic materials that can be composted.

- 13) **Microscopic** - Something that is too small to be seen by the unaided eye, but can be viewed under a microscope.
- 14) **Bacteria** - Tiny living beings, also called microorganisms. They are neither plants nor animals; they belong to a group all by themselves. Bacteria are tiny single-cell microorganisms, usually a few micrometers in length that normally exist together in millions.
- 15) **Decompose** - A process that means to break down or decay; to separate into components or basic elements.
- 16) **Ton** - A unit of weight equal to 2,000 pounds.
- 17) **Thrive** - To grow or develop well or vigorously.

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



## Compost: Acrostic Poem

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

## Compost: Hypothesis and Experiment

**Directions:** Pretend you are a scientist studying an apple that has been eaten down to its core. The core was put in a compost bin. Write about the composting experience.

- First, a good resource for you to use is [OCRRA.org](http://OCRRA.org).
- Next, use this form to make your predictions. What do you think will happen to the apple core at each step?
- Design an experiment to test your idea. Decide what conditions the apple core will be kept in and how often you will check on it. Make a prediction of how long it will take to decompose.
- Compare the actual experiment to your idea of what would happen. How are they similar and how are they different? How do you think different conditions would impact the apple core?

First, \_\_\_\_\_  
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Next, \_\_\_\_\_  
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\_\_\_\_\_

Then, \_\_\_\_\_  
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After that, \_\_\_\_\_  
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Finally, \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Great job! What further questions does your experiment raise? How could you test them?

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

## Compost: Memory Match Vocabulary

**Directions:** Draw a line to match the **bold** vocabulary word with its definition.

<b>Organic Materials</b>	the process of turning what you may think is waste into reusable material	Breaking down of organic materials into nutrient-rich compost
to break down	<b>Vermicomposting</b>	<b>Decompose</b>
<b>Composting</b>	ground-up trees and branches used for gardens and landscapes	food scraps and yard trimmings
composting with a special kind of worm that digests food quickly	<b>Recycling</b>	<b>Mulch</b>

## Compost: Memory Match Vocabulary Answer Key

<b>Organic Materials</b>	the process of turning what you may think is waste into reusable material	Breaking down of organic materials into nutrient-rich compost
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## Compost: Word Bank

**Directions:** Fill in the blanks using words from the word bank.

1. Food scraps and yard trimmings are called organic \_\_\_\_\_.
2. \_\_\_\_\_ refers to the breaking down of organic material into nutrient rich compost.
3. We can add \_\_\_\_\_ to soil to increase its ability to grow big and beautiful plants.
4. Composting is something you can do at \_\_\_\_\_.
5. If you don't have space inside to compost you can create a compost bin indoors with a little help from some unlikely friends called \_\_\_\_\_.

Word Bank		
Fertilizer	Worms	Materials
Home		Composting

## Compost: Word Bank Answer Key

1. Materials
2. Composting
3. Fertilizer
4. Home
5. Worms

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

## Compost: Test

**Directions:** Answer the following questions after watching the Compost video.

1. What effect does composting have on our soil?
  - A. None at all
  - B. Fertilizes the plants
  - C. Makes the soil smell good
  - D. All of the above
  
2. What causes the food scraps and yard waste to decompose?
  - A. More food scraps
  - B. Fluorescent lights and radiation
  - C. Microscopic bugs and bacteria
  - D. None of the above
  
3. What effect do red wiggler worms have on your compost pile?
  - A. Breaks down your food
  - B. Breaks down your yard waste
  - C. Turns it into compost
  - D. All of the above
  
4. What service does OCRRA do for local businesses?
  - A. OCRRA composts their food scraps
  - B. OCRRA cleans their garbage pails
  - C. OCRRA plants their flowers
  - D. All of the above
  
5. How is mulch made?
  - A. Woody things are ground up.
  - B. Apple cores are mashed down.
  - C. Acorns get planted deep.
  - D. Worms are gathered together.

## Compost: Test Answer Key

1. B. Fertilizes the plants
2. C. Microscopic bugs and bacteria
3. D. All of the above
4. A. OCRRA composts their food scraps
5. A. Woody things are ground up