



Lesson Plan

Tractor Supply Company: How and Why to Compost

Created: 03/2016 by the National FFA Organization

STUDENT LEARNING OBJECTIVES

After completing these activities students will...

1. Define composting.
2. Label example building materials, location, green and brown matter, and tools utilized in building a composting pile.
3. Describe why having the correct ratio of green and brown matter in a compost pile is important.
4. Articulate why they believe composting is important.

TIME REQUIRED: 30 minutes

RESOURCES:

1. FFA.org
2. Video: *How and Why to Compost*: <https://youtu.be/kmdswODQDPs>

EQUIPMENT AND SUPPLIES NEEDED:

1. A copy of the "Breaking it Down to Grow More" worksheet for each student.
2. Internet access to play the video in real time or embed it in a PowerPoint ahead of time.

THIS QUICK LESSON PLAN WOULD WORK WELL AS:

1. A portion of a plants or environmental service system curriculum.
2. A portion of an agricultural companies lesson/unit.

THESE ACTIVITIES ARE ALIGNED TO THE FOLLOWING STANDARDS:

AFNR Performance Element

- CS.06: Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.

FFA Precept

- FFA.PG-J.Mental Growth: Embrace cognitive and intellectual development relative to reasoning, thinking and coping.

Common Career Technical Core

- AG6: Analyze the interaction among AFNR systems in the production, processing, and management of food, fiber, and fuel and the sustainable use of natural resources.

NASDCTEc

- AGC05.02 Identify how key organizational systems affect organizational performance and the quality of products and services to demonstrate an understanding of how AFNR systems are managed and improved.

Common Core- Reading: Informational Text

- CCSS.ELA-Literacy.RI.9-10.3: Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

Common Core- Writing

- CCSS.ELA-Literacy.W.9-10.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

Common Core- Speaking and Listening

- CCSS.ELA-Literacy.SL.9-10.1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts and issues, building on others' ideas and expressing their own clearly and persuasively.

Common Core- Science & Technical Subjects

- CCSS.ELA-Literacy.RST.9-10.4: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.

Common Core- Literacy in Science & Technical Subjects: Writing

- CCSS.ELA-Literacy.WHST.9-10.6: Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information and to display information flexibly and dynamically.

AFNR Career Ready Practices

- CRP.02.: Apply appropriate academic and technical skills. Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive.

Partnership for 21st Century Skills

- Critical Thinking and Problem Solving
- Information, Communications and Technology Literacy

LESSON PLAN:

1. Introduction:

There are many different ways to both reduce, reuse and recycle. There are also many ways to bring nutrients to soil and garden plants. Composting is a strategy used to utilize waste in an efficient way to bring needed or missing components to garden plants, fields, or even common house plants.

Ask students the following questions to begin introducing the topic of composting: "What do we know about composting?" "How do we compost?" Additional similar questions will gauge the awareness and understanding level of composting.

- Transition:* Tractor Supply Company does a great job describing the steps to construct a compost pile in one of their videos.
- Activity:** Distribute the handout "Breaking it Down to Grow More" to each student. Give instructions for them to fill out the worksheet.
 - They will need to watch the accompanying video in order to complete the handout. The video is provided on this lesson plan.
 - Tip:* The information delivery in this video is very fast. Whether the video is shown to the entire class at once or an assignment for students to do on their own, know that the video will need to be paused or played back frequently to get all of the facts. Below are time stamps to find the answers directly.
 - Problem 1: Definition of composting:* 0:08-0:28
 - Problem 2: Labeling image:* 0:28-1:53
 - Problem 3: Correct ratio:* 1:14-1:29
 - Problem 4: Importance:* 1:53-2:00
 - Follow-up:** Have students discuss the last question about why they think composting is important with another student. Facilitate a class wide discussion revolving around their thoughts and reasoning. Examples of answers could include using waste in an effective way, ensuring soil and crops get needed nutrients, reduction of material in landfills, sustainable practices, etc.
 - Leveling Up:** As an additional activity, start a class compost pile. Have students research and decide where the compost pile could sit and where the resulting compost could go (ex: school greenhouse/garden, local farmers, etc.). Build the structure to contain the pile, put together a maintenance plan, and bring in their own green and brown materials to start the project.

Alternatively, students could research how composting can be commercialized, how it would compare to general production agriculture, and present their findings to the class.

NAME: _____

Breaking it Down to Grow More

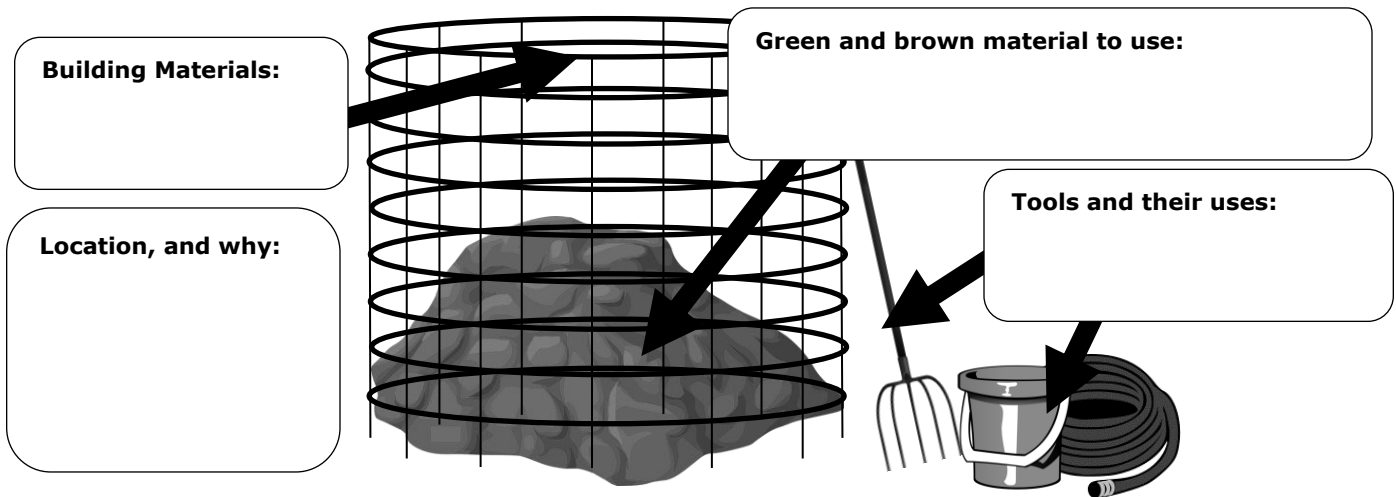
DIRECTIONS:

Check out Tractor Supply Company's video *How and Why to Compost* by following the link, <https://youtu.be/kmdswODQDPs>. Complete the sections below to outline the composting process.

- 1) *Fill in the blank* to discover the definition of **composting**?

A _____ process, similar to the way nature _____ leaves and other _____ on the forest floor. A _____ of _____ and _____ matter kept barely _____ and _____ will _____ into a dark, aromatic material filled with the beneficial _____, microbes and fungi that your _____ need to grow like champs!

- 2) *Label* the image below with the examples Tractor Supply Company recommends to **construct a compost pile**:



- 3) *Write* why having the correct ratio of green and brown material is important below:

- 4) Based on what you heard in the video and what you understand about it, why do you think composting is important? Record your thoughts here:

NAME: _____

Breaking it Down to Grow More

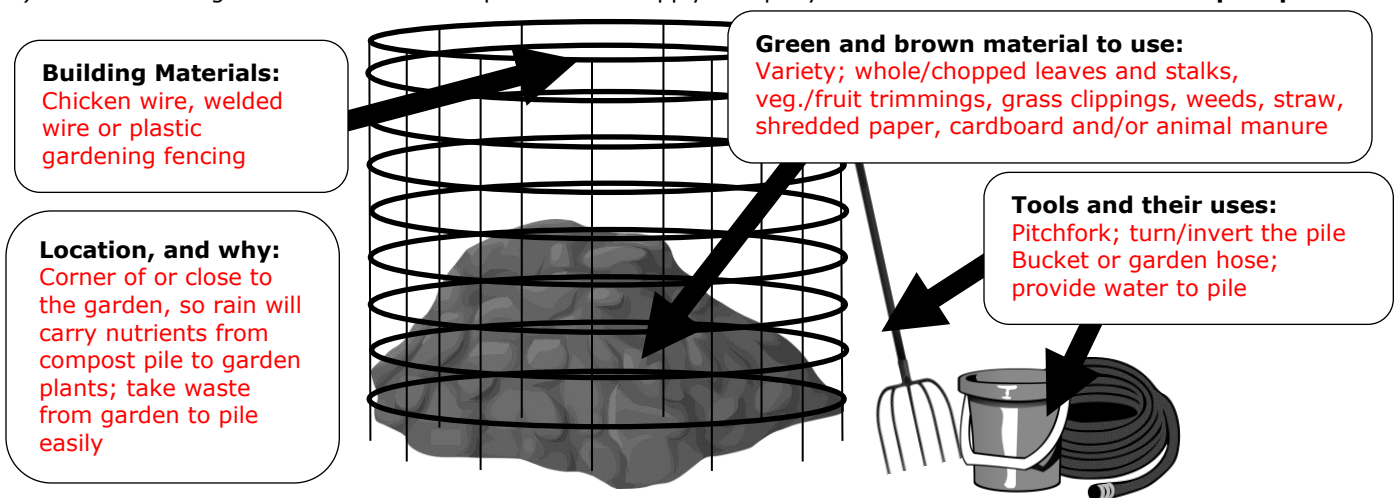
DIRECTIONS:

Check out Tractor Supply Company's video "How and Why to Compost" by following the link, <https://youtu.be/kmdswODQDPs>. Complete the sections below to outline the composting process.

- 1) *Fill in the blank* to discover the definition of **composting**?

A (natural) process, similar to the way nature (breaks) (down) leaves and other (dead) (material) on the forest floor. A (combination) of (green) and (brown) (vegetable) matter kept barely (moist) and (turned) (regularly) will (decompose) into a dark, aromatic material filled with the beneficial (bacteria), microbes and fungi that your (plants) need to grow like champs!

- 2) *Label* the image below with the examples Tractor Supply Company recommends to **construct a compost pile**:



- 3) *Write* why having the correct ratio of green and brown material is important below:

Too much wet, green material makes it smelly. Too much dry, brown material slows composting. Correct ratio makes the most efficient pile

- 4) Based on what you heard in the video and what you understand about it, why do you think composting is important? Record your thoughts here:

Student answers will vary; common answers could include reduce waste, provide nutrients to gardens naturally, gardening sustainably, etc.