

FFL Principle 1- Recycle Yard Waste

High School

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Program Type: Outreach Activity		Duration: Two 50-minute class periods, plus time for data collection
Standards: SC.912.L.17.11: Evaluate how human activities impact the environment and natural resources. SC.912.N.1.1: Define a problem based on scientific principles and develop solutions through design. SC.912.E.6.6: Analyze how technology and human activity impact Earth's systems.		
Learning Objectives: <ul style="list-style-type: none"> Investigate how different types of yard waste decompose under composting conditions. Collect data on material breakdown over time. Evaluate composting as a method to recycle yard waste and improve soil health. Connect composting to other Florida-Friendly Landscaping principles. 		
Guiding Questions: How do different types of yard waste break down under composting conditions and what factors influence their rate of decomposition? How can composting yard waste reduce environmental impact and support sustainable landscaping practices in Florida?		
Intended Outcomes		
As a result of the program, what I want my audience to LEARN... Identify common types of yard waste and how they can be recycled through composting or mulching. Explain how recycling organic waste benefits the environment and reduces landfill use. Describe the role of compost in improving soil health and plant growth. Connect composting to other Florida-Friendly Landscaping principles, like water conservation and reducing pollution.	As a result of the program, I want my audience to ACT by... Design a basic composting or recycling system for use at home, school, or in the community.	Assessment: (How will you know your audience has reached your intended outcomes) Bell work and exit ticket responses. Experiment design, results, and completion Presentation of results Participation in final discussion
Schedule Layout:		Items Needed:
Day 1 (50 minutes) 5 min- Bell Work: Students read a quick summary about Florida Friendly Landscape Principle #7: encourages composting yard waste to reduce landfill use and enrich soil. 5 min- Introduction: Explain that students will test how different materials decompose in compost-like conditions.		2–3 clear plastic containers (e.g., recycled salad boxes or jars with lids and holes) A mix of yard waste samples (grass clippings, dry leaves, small

<p><i>Discuss key compost factors:</i></p> <ul style="list-style-type: none"> ● Green materials (nitrogen-rich like grass clippings, food scraps) ● Brown materials (carbon-rich like dry leaves, newspaper) ● Moisture, oxygen, and temperature <p>25 min- Lab Setup: Groups will be asked to come up with a question and hypothesis.</p> <p><i>Examples:</i> How might sunlight or moisture levels influence decomposition? What Florida conditions (e.g., heat, humidity) speed up composting? Each group will be given a data sheet to track decomposition and then complete the following:</p> <ul style="list-style-type: none"> ● Add equal amounts of soil to each container. ● Chooses two or three types of organic materials to test ● Labels the containers, adds moisture, and loosely closes lids <p>15 min- Initial Observations & Variables: Students Record initial observations: color, texture, smell, and moisture level.</p> <p><i>Example observations:</i> Which materials seem more likely to decompose quickly? Is the setup more “green” or “brown”? What effect might that have?</p> <p>5 min- Exit Ticket: Which material do you predict will break down the fastest? Why?</p>	<p>twigs, food scraps, coffee grounds, etc.)</p> <p>Soil or compost starter</p> <p>Spray bottle (moisture control)</p> <p>Gloves & safety goggles</p> <p>Data sheet for observations</p> <p>Labels for containers</p>
<p><u>Day 2-12</u></p> <p>10 min- Data Collection: Write down any observations in lab notebook, take photos, or weigh material</p> <p><u>Day 13</u></p> <p>30 min- Analyze data and create graphics that students can use to explain their results to the class. (tables, graphs, slideshows, etc)</p> <p><u>Day 14: (50 minutes)</u></p> <p>5 min- Bell work: What do you think happens to organic waste like leaves and food scraps if they’re thrown away instead of composted? What impact might this have on landfills or the environment?</p> <p>25 min: Groups report data</p> <p>15 min: Discussion</p> <ul style="list-style-type: none"> ● Connect to Florida-Friendly Landscaping: <ul style="list-style-type: none"> ○ How does composting reduce the need for synthetic fertilizers? ○ How could composting support Principle #4: Mulch or #2: Water Efficiently? <p>5 min- Exit Ticket: How does composting help reduce pollution or protect Florida water resources?</p>	