

Program Type: Activity		Duration: 2-3 days (50-60 min classes each day)
Standards: SC.912.L.17.12 Discuss the political, social, and environmental consequences of sustainable use of land. SC.912.L.17.8 Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species. SC.912.L.17.10 Diagram and explain the biogeochemical cycles of an ecosystem, including water, carbon, and nitrogen cycle. (If go into detail about soil properties) SC.912.L.17.17 Assess the effectiveness of innovative methods of protecting the environment. SC.912.L.17.20 Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.		
Learning Objectives: Students will understand the importance of mulch and the correct type of mulch to use in Florida landscaping to conserve water and also attract native wildlife. Define mulch and explain its purpose in sustainable landscaping. Describe how mulching supports several of the 9 Florida-Friendly Landscaping principles.		
Guiding Questions: How can mulch make a difference in water conservation? Do mulch types matter? What is the best type of mulch? How much mulch is recommended?		
Intended Outcomes		
As a result of the program, what I want my audience to LEARN... By the end of this lesson, students will be able to: Explain how mulch supports healthy landscapes and Describe proper mulching techniques (ffl.ifas.ufl.edu) Connect mulching to at least three other FFL principles (e.g., water efficiency, stormwater reduction, recycling yard waste) Evaluate sustainability of mulch types (organic vs. non-organic, sustainable sourcing)	As a result of the program, I want my audience to ACT by... Evaluating the environmental and economic benefits of mulching. Designing a Florida-Friendly mulching plan for a sample garden or landscape area.	Assessment: (<i>How will you know your audience has reached your intended outcomes</i>) Students will answer worksheet questions Creation of a Public Service Announcement, either as a video or pamphlet and will be evaluated by a rubric. Assessment Options: Worksheet: Define four mulch benefits; illustrate proper vs improper application. Exit Ticket: Explain the benefits of mulch and how mulch connects to another FFL principle
Schedule Layout:		Items Needed:
Introduction (5-10 min): Present the 9 FFL principles briefly: Right Plant/Place, Water Efficiently, Fertilize Appropriately, Mulch, Attract Wildlife, Manage Pests, Recycle Yard Waste, Reduce Runoff, Protect Waterfront (ffl.ifas.ufl.edu), with an emphasis on Principle 4: Mulch		Computers, internet, IFAS websites, FFL websites, student handouts digital or paper LINK to Presentation

<p>Exploring Mulch Benefits (10 min)</p> <p>Group brainstorm: “How does mulch help plants and the environment?”</p> <p>Discuss: moisture retention, evaporation reduction, temperature moderation, weed suppression and soil improvement by decomposition</p>	<p>Suggested Resources: What's Happening Around Florida, ffl.ifas.ufl.edu</p>
<p>Mulching Technique (10 min)</p> <p>Types of mulch</p> <p>Mulching basics: spread 2-3 inches deep, keep 2 inches clear around trunks (Seminole County), replenish as it breaks down</p> <p>Explain proper mulching with visuals or class samples.</p> <ul style="list-style-type: none"> • Benefits of mulch and common mistakes • How mulching fits into other FFL principles • Comparing some mulch types pros and cons • Discuss pitfalls: over-mulching (“volcano mulches”), water blockage if too thick (What's Happening Around Florida) 	
<p>Mulch Evaluation Discussion (20 min) Students</p> <p>Analysis: Students will work in small groups to evaluate each mulch type- include real samples or pictures as well as access to research sources to do further research.</p> <p>Possible Activity 2: PSA on Benefits of Mulch</p> <ul style="list-style-type: none"> • Materials: Use Canva or some other app to create a 1-2 minute video or infographic on FFL Mulch. <ul style="list-style-type: none"> ○ Students can work in groups or individually ○ Rubric Provided 	<p>Materials: samples of pine straw, wood chips, shredded leaves, pebbles/rocks and rubber (actual samples or pictures)</p> <p>Mulching Worksheet</p> <p>PSA Rubric</p>
<p>Class Discussion (10 min)</p> <p>Groups share which mulch they picked and why.</p> <p><i>Link back to FFL principles-</i> water efficiency (conserves water), recycle yard waste (leaf litter as a mulch option), stormwater/runoff reduction (slows runoff), fertilizer (organic mulch adds nutrients)</p> <p><i>Bring in real-world impacts:</i> better landscapes, less maintenance, healthier waterways.</p>	
<p>Wrap-Up & Questions (10 min)</p> <p>Pose essential questions. Brief recap and resiliency reflection: “Why is mulch critical in Florida’s climate?”</p>	

Details:

Discussion & Reflection Questions

What are three key reasons we use mulch in landscaping?

What happens if mulch is placed too thickly or piled around a tree trunk?

Which FFL principles do you think mulch also supports, and how?

Organic vs synthetic mulch: Which is a better choice and why?

How can using local yard waste as mulch help both the landscaper and the environment?

Suggestions for Differentiation:

- **ELL learners:** teachers can pair them with a partner or use Google Translate to help with language. ELL students can also make their own PSA in a different language using Canva.
- **ESE or lower learners:** Pair students with a buddy to help them if necessary.