

COMPOST CRACKER STACKS

Kitchen

TIME AND LENGTH

45 min

ADAPTED

GRADE 2

SCHOOL PARTNER
LESSON PLAN

LOCATION

Kitchen Classroom



ESSENTIAL QUESTIONS

How and why do we compost?



MATERIALS

- Reusable Plates
- Butter knives
- Compost anchor chart
- Box of whole grain crackers
- Hummus
- Snap peas
- Broccoli (or other green material/food from the garden)



VOCABULARY

- Compost
- Green Matter & Brown Matter
- Fungi
- Bacteria
- Insects
- Nitrogen
- Carbon

TEACHER BACKGROUND

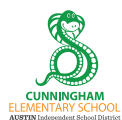
Composting: 10 Things You Didn't Know

LESSON DESCRIPTION

Students visit the garden and are introduced to the compost pile. Students return to the kitchen to make compost cracker stacks, which represent the layering of green and brown matter in compost.

NOTE:

Adapted from **Grade K Garden Lesson #6: Mini Compost Piles**, pg. 99 and **Grade K Kitchen Lesson #5: Edible Compost Piles**, pg. 258.



CREATED BY

Cunningham Elementary School
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LEARNING OBJECTIVES

- Students learn the basic structure of a compost pile and how to layer between green and brown matter
- Students learn how to classify different things as green or brown matter.

Life Skills Learning Objectives*Personal Like Skills*

- PLS.1** Students are self-aware and show respect for their own needs, the needs of others, and the environment. They practice safe and conscientious behaviors in the garden and kitchen environments.
- PLS.2** Students are able to express empathy and caring for themselves, others, and the environment.
- PLS.3** Students cultivate honest and responsible behaviors that contribute to the learning of the community.
- PLS.4** Students are active and engaged learners who show up on time prepared to learn and manage their time wisely.
- PLS.5** Students develop the ability to make informed and responsible decisions.
- PLS.6** Students actively seek creative and resourceful solutions.

Community Life Skills

- CLS.5** Students participate in the development of agreed upon protocols and behaviors for the garden and kitchen environments.

ACADEMIC STANDARD CONNECTIONS

Texas Essential Knowledge and Skills (TEKS) for Science, Elementary, Adopted 2017

- 2.1 Scientific investigation and reasoning.** The student conducts classroom and outdoor investigations following home and school safety procedures. The student is expected to:
- (B) identify and demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic, and metal.
- 2.5 Matter and energy.** The student knows that matter has physical properties and those properties determine how it is described, classified, changed, and used. The student is expected to:
- (A) classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid
- (B) compare changes in materials caused by heating and cooling
- (C) demonstrate that things can be done to materials such as cutting, folding, sanding, and melting to change their physical properties

*Lesson Sequence**Engage***Ignite Interest (5 mins):**

Visit compost piles in garden

*Explore***Stir Discoveries (20 mins):**

Look at compost and put food scraps and leaves/sticks in it—learn how to pile brown matter/green matter/brown matter/green matter

*Explain***Clarify New Ideas (5 mins):**

Anchor chart for compost pile and alternating between brown and green matter

*Elaborate***Watch It Rise (5 mins):**

Make compost cracker stacks that represent the pattern of brown/green/brown/green

*Evaluate***Reflect (10 mins):**

Compost material identification sheet. Reflection on experience.



ADAPTATIONS

Indoor or outdoor activity

CONNECTIONS TO THE GARDEN/KITCHEN LESSONS

- Composting in the garden
- FBI acronym for fungus, bacteria and invertebrates (the Garden “FBI”)
- What and why do we compost?
- **Grade 2 Garden Lesson #3: Building Compost**, pg. 133

POSSIBLE EXTENSIONS

Have students take leftover food out to garden compost and add it to the pile, layer green matter/brown matter/green matter/brown matter or have students start collecting compost in their classrooms.

ADDITIONAL RESOURCES

- [Composting 101](#)
- [Compost Chemistry](#)