

Lasagna Beds

Lesson Description

In this lesson, students will learn what lasagna beds are and participate in making one. Students have the opportunity to prepare the school garden for planting.

- Please note: This lesson requires a significant amount of preparation. Please refer to the Reference Manual for additional information.
- Time required: 60 minutes
- Location of lesson: Classroom and garden

Learning Objectives



- Learn what lasagna beds are and why they are used.
- Learn how to prepare a lasagna bed.

Materials and Preparation


Please note: quantity of lasagna bed materials will depend on how large the bed is

- Cardboard
- Shredded paper
- Saw dust (go to your local wood shop and they can fill bags)
- Coffee or espresso grounds (go to your local coffee shop and ask for old grounds)
- Scraps of vegetable and fruit trimmings
- Fish meal/emulsion
- Grass trimmings
- Wood chips
- Peat moss
- Manure
- Leaves
- Straw
- Composted soil
- Watering cans
- Shovels
- 1 empty, clean 2-liter plastic soda bottle
- Preparation:
 - Review **Building Lasagna Beds** in the Reference Manual
 - Cut off the top and bottom of the plastic soda bottle (making a column) and tape a piece of cardboard to one end – This will be used to demonstrate making a lasagna bed for the students.

Class Warm-up: Champion Cheer and Veggie Taste Test (5-10 minutes)

- Give each student a cup of water or ensure that they have a filled water bottle in front of them.
- Give each student the prepared veggie snack of the day.
- Lead the students in enthusiastically reciting the  **Champion Cheer**.
- At the end of the cheer, drink water and eat the veggie snack together.
- Have students complete their  **Taste Test Observations** about the vegetable snack of the week.

Review of Last Lesson (2-3 minutes)

- Review the evaluation questions from last week’s lesson. Evaluation questions from all lessons are listed at the end of the  workbook.

Class Discussion (2-3 minutes)

Today we are going to learn a new method used to get gardens ready for planting. It will make our soil very rich and full of nutrients. This new method is called lasagna beds.

- *Who has eaten lasagna before?*
- *Does anybody know how lasagna is made?* (Answer: by layering noodles, cheese, and sauce)

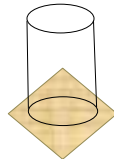
Lasagna beds are easy to make and have a lot of benefits. Lasagna beds contain more moisture and don’t have as many weeds as regular garden beds.

We are going to make a lasagna bed in our garden!


Activities (35-40 minutes)

- **“Lasagna Bed Demonstration” (5-10 minutes):** Students will see a demonstration of how a lasagna bed is made.

1. Prior to class, make a clear column using a clear plastic soda bottle and tape the cardboard to the bottom.



2. *Before we build a lasagna bed outside, I am going to demonstrate to the class how you make one using this clear plastic bottle.*
3. *First, we will place a layer of cardboard on the ground to make sure weeds do not come up and steal water and sunlight from the vegetables/fruits we plant in the bed. When we build the lasagna bed outside, we will soak the cardboard with water (you do not have to demonstrate this in the classroom).*
4. *A lasagna bed is made by alternating layers of “green” and “brown” ingredients.*

- a. *Green ingredients are fresh or live. They include vegetable scraps and peels, animal manure (no animal materials such as meat, bones, fat), coffee/espresso grounds, plants and plant cuttings, and grass clippings.*
 - b. *Brown ingredients are dry or dead and include dry/dead leaves, straw, shredded paper, sawdust, wood chips or ashes, and peat moss.*
 5. Start putting the layers in the plastic column and ask the students to help you remember which ingredients are in each layer.
 - a. *Let's start layering. I will start with a layer of brown ingredients first.*
 - i. *Can you help me remember which ingredients are brown?*
 - b. *In general, we want the brown layers to be twice as deep as the green layers. And after each layer, we will soak it with water (you do not need to demonstrate soaking each layer).*
 - i. *Now, can you help me remember which ingredients are green?*
 6. If you are preparing beds in fall, add straw or hay on top of the layers. If you are preparing beds in the spring (or a couple weeks before planting) spread composted soil on top of your layers.
 - a. *Now that you have seen me build a lasagna bed in this container, let's go make one in our garden!*
-  **“Building Lasagna Beds” (25-30 minutes):** Students will participate in making lasagna beds.
 1. Remind students of respectful garden behavior:
 - a. *Remember, when we work in the garden I have certain expectations of your behavior. I expect you all to be respectful of self, respectful of one another, and respectful of the garden.*
 2. Gather your materials and have the students help make the bed.
 3. Start by layering cardboard at the bottom of your garden bed. Cover the entire surface and then soak it with water.
 4. Now alternate layers of “greens” (e.g., vegetables scraps, garden trimmings, manure, fish meal/emulsion, coffee/espresso grounds, grass clippings, etc.) and “browns” (e.g., fall leaves, shredded paper, peat moss, wood chips, pine needles, saw dust, etc.).
 - a. In general, you want your brown layers to be twice as deep as your green layers (no need to be exact). At the end you want your layered bed to be 2 feet tall. You'll be amazed at how much it will shrink down in a few short weeks.
 5. If you are preparing beds in fall, you can add straw or hay on top of the beds. If you are preparing beds in the spring (or a couple weeks before planting) spread composted soil on top of your layers.

Evaluation Questions (5 minutes)

1. *When we say lasagna bed what do we mean by that phrase?* (Answer: just like lasagna has layers of noodles, cheese and sauce, our lasagna bed has layers of brown and green organic matter)
2. *How much water should you drink every day?* (Answer: at least 6 cups of water a day)
3. *How many fruits and vegetables should you eat every day?* (Answer: at least 5 fruits and vegetables a day)
4. *Does gardening connect you to your culture and help you learn new words in your language?* (Answer: yes)

Preparation for Future Lessons – Reminder for the Instructor

- Review the materials and preparation needed for the next lesson.

Notes
