



# What do you do with a Mushroom?



## LESSON 2

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## OVERVIEW

Students investigate mushrooms, how to care for mushrooms, evaluate the sustainability of mushrooms, and grow them.

## Outcome

Students explore the types of mushrooms, how they are prepared, how they are cleaned and stored.

Students will explore how mushrooms are grown and the sustainability of mushroom production.

## Learning Objectives

Students will be able to....

- Choose the best mushrooms
- Handle mushrooms
- Clean and store mushrooms
- Evaluate sustainability of mushrooms
- Grow mushrooms and record their progress

## Standard Alignment

- ELA
  - » 8.CC.1 Engage effectively in a range of collaborative discussions (e.g., one-on-one, in groups, and teacher-led) on grade-appropriate topics.
- Science:
  - » MS-LS1-8 Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.
- Family and Consumer Sciences:
  - » 3.2 Investigate nutrition and wellness practices that enhance individual and family well-being.

» 4.2 Demonstrate foundational methods and techniques in the culinary and hospitality industries.

- Agriculture

- » PS.01 Develop and implement a crop management plan for a given production goal that accounts for environmental factors.

- » PS.01.01 Determine the influence of environmental factors on plant growth.

## Materials

- Activity Sheets – colored pencils
- 1 plastic bag
- A paper Bag for each student
- At least 3 varieties of fresh mushrooms (such as white, brown, portabella, crimini) - note, these varieties will be used in the following Lesson 3: Why Mushrooms?
- Paper towels, knife and cutting board
- Lab Materials: mushrooms per student, paper bag, paper towels, water, crayons, cutting board and knife (for instructor use)

## Educator Preparation

Print all handouts, prepare bags and mushrooms for lab.

Lesson Outline			
Step 1	How to care for a Mushroom	Warm Up and Motivation	10 minutes
Step 2	What do you do with a Mushroom?	Direct Instruction	30-45 minutes
Step 3	Mushroom Care Activity	Activity Sheet	10 minutes
Step 4	Mushroom Care Lab	Lab	20 minutes
Step 5	How do Mushrooms Grow?	Instruction, Group Activity, Extended Learning	2 hours

# Step 1: How to care for a Mushroom

## *Warm Up*

The teacher engages students by asking students questions.

- "What have you learned about mushrooms?"
- "Can you name a type of mushroom?"
- "Why is it good to eat mushrooms?"

Teachers are then encouraged to utilize the video below about selecting, storing, and cleaning mushrooms.

[How-to Videos: Select, Store and Clean Mushrooms | Mushroom 101 Videos \(mushroomcouncil.com\)](https://mushroomcouncil.com)

# Step 2: What do you do with a Mushroom?

## *Introduction*

Students will learn about mushrooms and care while participating in an activity. Explain to the class that today's lesson is to learn about how to handle and care for mushrooms so they stay fresh in our refrigerator until we're ready to eat them.

**Introduction Activity:** Selecting Mushrooms

- Introduce the term texture. What is texture? The feel, appearance, or consistency of a surface. Share some examples of items with a distinct texture and ask students to find words to describe the textures.

## *Activity*

- Use the Texture Handout. Ask students to complete four texture rubbings and label them with words describing the texture.
- Have students share examples with the class.
- Ask students the following question
  - » Do your parents ever feel fruits or vegetables at the grocery store before buying them?
- Explain to students that the harder object is described as **firm**. **Firm** means solid surface and strongly felt.
- Now pass around a firm mushroom for students to feel. This is how they should feel when you buy mushrooms.

## *Whole Group Instruction and Demonstration*

**Activity:** Lead discussion about how to buy, store, and care for mushrooms. Use PowerPoint slides to help guide the instruction and demonstrate with real mushrooms for the class.

- Store mushrooms in a porous container
- Handle mushrooms gently
- Wipe off mushrooms with a damp cloth to prepare
- Trim rough stems

## **Step 3: Parts of a Mushroom and Care Activity**

### *Demonstration Activity Sheet*

Print off the activity sheets for the students. Students need colored pencils to complete the activity.

Directions: Go over the parts of a mushroom and have students label their mushrooms as you review.

Go over each step of directions for caring for mushrooms, ask the students to complete the following:

- Color the part of the mushroom you would feel for firmness your favorite color
- Color the mushroom brown where you would wipe it off
- Color the part that you would trim if it was red

## **Step 4: Mushroom Care Lab**

### *Whole Group Discussion*

Begin by asking students about their Mushroom Activity Sheet. Example questions below:

- "Do you know how to pick out a mushroom?"
- "How would you care for the mushroom?"

## Lab Activity

Set up a care lab for mushrooms. This will allow students to feel actual mushrooms and practice handling and caring for them. This will also allow students to prep for a tasting lab the next day.

Lab Stations can be set up prior to the lesson.

### Station 1: Storage

Show students two storage bag options: a plastic bag or a brown paper bag. Ask students to choose the best storage bag. (Brown paper bag is correct)

*Instructor's Note: Allow students to color, label and decorate their mushroom bag while the class goes through the remaining lab in small groups or individually.*

### Station 2: Mushroom Picking

Allow students to select a variety of mushrooms from a large bowl of mushrooms. Ask them to select at least three types of mushrooms to taste. Encourage them to feel the mushrooms and check for firmness.

### Station 3: Cleaning

Give each student a damp paper towel and a dry paper towel. Guide them in gently cleaning their mushroom by wiping it with the paper towel then patting it dry.

### Station 4: Trimming

Have students feel the stem of their mushroom. Ask them if their stem needs trimming and where. Have students trim the mushrooms in preparation for a tasting lab.

## Debrief

Pose questions to the class to further discussion about mushrooms.

- "What did you learn about caring for mushrooms today?"
- "Will you help your family when they grocery shop to pick out good mushrooms?"
- "Why is how you care for mushrooms important

# Step 5: How do Mushrooms grow?

## Warm Up

Show Video: Short clip of Mushrooms Growing <https://youtu.be/mNAeZPjcegQ>

## Group Instruction and Activity

Mushrooms grow differently than other vegetables (and yes technically, mushrooms are a fungi, not a vegetable!). The mushroom growing process is unique. Review the below handout, then create an infographic highlighting the steps of the mushroom growing process.

Handout: [Mushroom-Growing-Handout-1.pdf \(mushroomcouncil.com\)](#)

Mushrooms are a sustainable product. Review the handout about sustainability

Handout: [MC-Sustainability\\_FactSheet\\_020323.pdf \(mushroomcouncil.com\)](#)

## Group Activity

Create a Public Service Announcement about mushrooms being a Sustainable product. Utilize the handout above or other research on mushroom sustainability.

- Create a 30 to 60 second ad about mushrooms (ad can be radio or video based – teacher choice)
- Focus on the sustainability of mushrooms
- Include factual evidence-based information in the PSA
- Consider qualities that will make it appealing to the public

*Instructor Notes: Consider turning this into a contest with the winning PSA being shared on the school announcements or in a local PSA spot.*

## Extended Learning

Students can experience mushroom growing by using a mushroom grow kit. If possible, utilize these for a classroom experience.

[Original Mushroom Growing Kit by Back to the Roots – Grow Mushrooms at Home](#)

Students can experiment with various approaches and techniques to growing to compare results. A few items to include as variants for the growing experiences:

- Amount of Water
- Type of Soil

- Changes in compost materials
- Addition of UV light – Vitamin D content
- Type of mushroom
- Different environments

## ***Group Activity***

### Mushroom Growing

- Each group chooses an approach to growing their mushrooms
- Groups should do additional research related to their growing approach
- Each group shall keep a record of steps and actions related to the growing experience
  - » *Instructor's Note: Have students check on and log their mushroom progress at the beginning of each class or on a set schedule*
- Groups should utilize the record to submit a final timeline of mushroom growth