



# HOW FUNGI RECYCLE MATTER

Garden

Grade 6 • 140 mins

Fall, Winter, Spring, Summer • Indoor and Outdoor  

NEW!

GRADE 6

SCHOOL PARTNER  
LESSON PLAN

SUBMITTED BY

Noah Welsh • [nwelsh@bellechasseacademy.org](mailto:nwelsh@bellechasseacademy.org)



## ESSENTIAL QUESTIONS

- How are fungi important to the environment?



## MATERIALS

- Mushroom growing set up
- Mushroom medium
- Oyster mushroom spores
- Pizza ingredients



## VOCABULARY

- Spores
- Decomposers
- Fungi/fungus

PREPARATION (ESTIMATED TIME VARIES)

Teacher should prepare indoor oyster mushroom gardens.

TEACHER BACKGROUND

Teacher should understand energy flow in food chains and food webs in addition to photosynthesis and cellular respiration.

LESSON DESCRIPTION

Students will learn about fungi and the energy and matter that flows through them, by exploring mycellium networks in the garden, growing and harvesting oyster mushrooms, and using those mushrooms to make pizza.



CREATED BY

Belle Chasse Academy in 2022

Emeril Lagasse Foundation retains ownership of these specific lesson plans.  
Any third-party resources or handouts included are shared solely as examples  
and we do not claim ownership of them.

## LEARNING OBJECTIVES

- I can develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.
- I can work in teams.

## Life Skills Learning Objectives

*Community Life Skills*

**CLS.2** Students cooperate and communicate well with each other.

## ACADEMIC STANDARD CONNECTIONS

**6-MS-LS2-3:** Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

## HEALTH STANDARD CONNECTIONS

**4-M-3.1** Role-play appropriate ways to respond to feedback from others.

*Lesson Sequence**Engage***Cultivate Curiosity (30 mins):**

Students will go into the garden and search the soil for fungal mycelium networks.

*Explore***Root Around (20 mins):**

Students will harvest mushrooms from indoor oyster growing buckets. Teachers will have to prebuild and set up these systems.

*Explain***Grow Understanding (20 mins):**

Students will draw and discuss diagrams of the energy flow in the system, including people, mushrooms, mushroom medium, pizza, etc.

*Elaborate***Observe The Fruits (50 mins):**

Students will cook pizza using their harvested oyster mushrooms as the primary topping.

*Evaluate***Reflect (20 mins):**

Students will write a paragraph using Claim-Evidence-Reasoning explaining how energy moved from the Sun to plants to various consumers and in turn to the mushroom and back into their pizza. Additionally, they should explain how the matter moved from the air and water into the plant and through a food web and onto their pizza. Their discussion should include discussion of the corresponding transformations of energy and matter.



**ADAPTING FOR INDOORS**

Students may look at internet pictures of mycellium if the day is rainy. They can then go explore for mycellium in the soil on a future date. All other lesson components can be completed indoors.

**CONNECTIONS TO KITCHEN LESSONS**

This lesson includes both garden and kitchen components. Mushrooms grown in the students indoor harvesting containers will be used as pizza topping for pizza cooked in the kitchen.

**POSSIBLE EXTENSIONS**

Students can now cook pizza for class/school events.

**ADDITIONAL RESOURCES**

[Growing Mushrooms at Home](#)

**OTHER COMMENTS**

This lesson will take two days.



CREATED BY  
Belle Chasse Academy in 2022

Emeril Lagasse Foundation retains ownership of these specific lesson plans.  
Any third-party resources or handouts included are shared solely as examples  
and we do not claim ownership of them.