

## Bio 132 Lab 18: Fungi - Modified to follow a 5E strategy.

Realm – Organism diversity/Fungi

Course – Bio 132

Strategy: 5E Model

Audience: Whole Class

Length: Full lab period 2 – 2.5 hours.

Main Objectives:

By the end of the lab students should be able to:

- Use microscopes, dissecting tools, and senses (except taste/smell) to make qualitative and quantitative observations of representative fungi.
- Describe the distinguishing characteristics of fungi.
- Explain the ecological roles of fungi.
- Compare and contrast fungi with animals, plants, protozoa, and prokaryotes.
- Summarize the life cycle of fungi.
- Describe the distinguishing characteristics of the fungi phyla: Ascomycota, Zygomycota, and Basidiomycota.

Stage	Student and Instructor Actions
Engage	<p>(approximately 10 minutes)</p> <p>Instructor shows photographs and video clips of unique fungi included:</p> <ul style="list-style-type: none"><li>• “Humongous fungus” <i>Armillaria gallica</i></li><li>• Ergot</li><li>• Truffles</li></ul> <p>Students are asked to share any information they already know about these fungi. Instructor provides a brief description of the significance and uniqueness of these fungi.</p>
Explore	<p>(approximately 30 minutes)</p> <p>Each student team is provided: a white button mushroom, a sealed Ziploc bag with molded bread, a dissecting microscope, a compound microscope, dissecting equipment, a white board, and dry erase markers.</p> <p>Students are instructed told that both specimens are fungi. They are tasked to compare and contrast the two specimens using the equipment provided. They record their observations on the white boards.</p>
Explain	<p>(approximately 20 minutes)</p> <p>After 30 minutes, all white boards are placed in the front of the classroom. Students compare all observations and create a shared list of similarities and differences of the specimens.</p> <p>Instructor provides additional and/or correct information as needed on the characteristics of the fungi. Instructor provides an overview of fungi life cycles.</p>
Elaborate	<p>(approximately 45 minutes)</p> <p>Students complete designated activities for Lab 18: Fungi in their lab manuals.</p>
Evaluate	<p>Formative:</p> <p>During the exploratory and elaborative stage of the lesson, the instructor moves from team to team to check student progress, ask review questions, and pose questions for them to explore further.</p>

Summative:

Students complete a post lab assignment for homework. (Completed during the lab period and immediately after completion)

Students complete a lab quiz the following week.