



# Why Did the Mushroom Go to the Garden Party?

## Grade 2

### Standards

S2L1.d

### Time

45 minute - 1 hour

### Supplies

#### *Per student*

- One mushroom cap
- Paper or foil
- Ziptop bag

#### *Per class*

- Artist fixative spray or hair spray (non-aerosol)
- Several trowels
- Hand sanitizer
- Field guide with pages cut and separated
- Book: Mushroom: A Life Cycle
- Package of mixed mushrooms from grocery store

### Overview

Students will explore fungi by making spore (gill) prints, go on a mushroom foray to find and observe wild mushrooms, group mushrooms by placing them next to the field guide pictures they most resemble, discover that most of a mushroom is underground and that the cap is the fruiting body, draw a mushroom they observe, and label its parts.

### Preparation

Before the lesson, print the Mushroom Field Guide, cut apart the pages, and arrange on a counter or table in a row so that students can place similar mushrooms next to the page they think best represents the specimen they have “collected.” Copy a Spore Print ID Card for each student.

### Engaging Students

Read the book *Mushrooms: A Life Cycle* with students. Ask why mushrooms are called the hidden kingdom (most of the organism is underground).

Students will choose a grocery store mushroom (or one that is definitely safe to handle) and remove the stem, place it on top of foil or light colored paper (or the checkerboard Spore Print ID Card in the link below), place a drop of water on top of the cap, and cover with a cup for two hours or longer, without disturbing. The resulting pattern of fallen spores can be fixed by spraying with artist or hair spray. (Look for a spray without propellants).

### Exploration

After the seeds have germinated, they can be transplanted from the necklace bag to a paper cup or to the garden and monitored on a regular schedule. Students will measure height and number of leaves, record data on charts (attached).

Ask students to generate questions about plant growth and record the questions. Then ask students to suggest answers to the questions and think of how evidence could be collected to prove the answers correct or not. Based on these questions and suggested answers, let groups of students design experiments. For instance, to determine whether a particular set of leaves on a plant moves up as the plant grows, students can mark the spot measure it along with total plant height, each day. To determine whether sunlight is needed for plant growth, students could build a shade structure over one plant or cover a leaf with aluminum foil. The specific experiment is not as important as students learning to challenge each other by asking,

“what is your evidence for that?” or “what proof do you have?” or “what could we do to prove or disprove that idea?”.

### **Explanation**

Students should be able to illustrate plant growth in a series of cartoon cells (storyboard style) and use this prop to explain the process.

### **Environmental Stewardship**

Students can collect their school lunch leftovers (except meat) and create a compost heap that can eventually be used to nourish the garden soil and provide the benefits of creating their own organic fertilizer. Or some of the plants grown from seed can be used to donate to the Food Bank, for the benefit of families who cannot afford enough food.