Mycology for Kids: The Great Mushroom Grow Kit Adventure!

Materials Needed

- Mushroom Grow Kit (e.g., Pink Oyster, Lion's Mane)
- Spray bottle with clean water
- A dedicated notebook or several sheets of paper stapled together (The "Fungi Scientist's Journal")
- Pencils, crayons, or colored pencils
- A plate or shallow dish
- Scissors or a small knife (for adult use during harvest)
- Cooking ingredients for the final celebration (e.g., butter, garlic, bread)

Learning Goals (Our Big Ideas)

By the end of this multi-day lesson, Student will be able to:

- Independently set up and care for a mushroom grow kit.
- Observe and document the stages of mushroom growth through drawing and simple notes.
- Identify the basic parts of a mushroom (cap, gills, stem).
- Explain in their own words what mushrooms need to thrive (water, substrate/food, indirect light).
- Connect the scientific process of growing to the real-world outcome of preparing food.

Lesson Activities (Our Mushroom Adventure)

This lesson unfolds over several days as the mushrooms grow. The initial setup is the main activity, followed by daily observation and a final harvest celebration.

Part 1: The Grand Unboxing & Brainstorm (Day 1 - 20 minutes)

1. **Spark Curiosity:** Present the sealed mushroom grow kit to Student like a mystery box. Ask questions: "*What do you think is inside? What clues does the box give us? Have you ever seen something like this before?*"
2. **Unbox and Investigate:** Open the kit together. Let Student touch and examine the block of substrate (the "mushroom food"). Ask: "*What does it feel like? What does it smell like? This block is called the substrate, and it's filled with something called mycelium, which is the secret root system of the mushroom.*"
3. **Predict and Plan:** Before reading the instructions, ask Student to predict what the mushrooms will need to grow. "*What do plants need to grow? Do you think mushrooms need the same things? Sun? Water? Soil?*" Write down their predictions on the first page of the Fungi Scientist's Journal.

Part 2: Setting Up Our Mushroom Farm (Day 1 - 25 minutes)

1. **Become an Expert:** Read the kit's instructions out loud together. Emphasize the key steps. This makes Student feel like they are in charge of the process.
2. **Hands-On Setup:** Guide Student through the setup process. Let them do as much as possible on their own:
    - Cutting the 'X' in the plastic bag (with close supervision or adult help).
    - Soaking the block if required (let them set a timer!).
    - Filling the spray bottle.

    - Finding the perfect spot in the house—one with indirect light, not direct sun. Ask them: "*Why do you think this is a good spot?*"
3. **First Journal Entry:** Open the Fungi Scientist's Journal. On a new page, have Student draw the kit as it looks on Day 1. They can label the "substrate block" and write a short sentence like, "*Today we set up our mushroom farm. I think the mushrooms will be pink.*"

Part 3: The Daily Mission (Ongoing Daily Task - 5-10 minutes per day)

1. **Morning Check-In:** Each day, the first task is to check on the mushroom kit. This builds routine and excitement.
2. **The Scientist's Duty:** Student's job is to gently mist the kit with the spray bottle according to the instructions. Count the sprays together.
3. **Observe and Document:** In the Fungi Scientist's Journal, Student will document any changes.
    - **Drawing:** A quick sketch of what they see. Are there tiny bumps ("pins") yet? Are they getting bigger? Changing color?
    - **Words:** Encourage simple written observations. Examples: "Day 3: I see tiny white bumps." or "Day 5: They are getting bigger and look like tiny shells." This is great practice for descriptive language.

Part 4: Harvest Day! (Usually Day 7-14)

1. **Know When to Pick:** When the mushrooms are ready (check kit instructions, but usually when the caps start to flatten), announce that it's Harvest Day!
2. **Anatomy Lesson:** Before harvesting, gently pick one mushroom. Point out the main parts. "*Look, this top part is the **cap**. Underneath are the **gills**—that's where the spores are. And this part holding it up is the **stem**.*" Have Student draw and label a mushroom in their journal.
3. **The Harvest:** With adult help, twist or cut the mushrooms from the block as instructed. Let Student hold the harvested bunch and describe how it feels and smells. Weigh them on a kitchen scale if you have one!

Part 5: The Mushroom Celebration (30 minutes)

1. **From Farm to Table:** Announce that Student, the Fungi Scientist, is now becoming Student, the Chef!
2. **Creative Cooking:** The goal is application, not a complex recipe. Sautéing the mushrooms in butter and garlic is perfect. Let Student help wash the mushrooms and, with supervision, tear them into bite-sized pieces. Let them add a pinch of salt.
3. **Taste Test:** Serve the cooked mushrooms on toast or with crackers. As you eat, discuss the whole process. "*Can you believe we GREW this? What was your favorite part of being a Fungi Scientist? Do they taste how you expected?*"

Checking Our Understanding (Assessment)

- **The Fungi Scientist's Journal:** The completed journal is the primary assessment tool. It shows the student's ability to observe, document, and track a process over time.
- **Show and Tell:** Have Student explain the mushroom growing process to another family member using their journal as a guide. Can they explain what the mushrooms needed to grow?
- **Verbal Quiz:** During the harvest or cooking, informally ask Student to point to the cap, gills, and stem.

Adventure Further (Optional Extensions)

- **Spore Print Art:** Gently remove the stem from a mature mushroom cap. Place the cap, gills-down, on a piece of white or black paper. Cover with a bowl and leave overnight. In the morning, a beautiful spore print will be left behind!

- **Research a Different Fungus:** Use books or a kid-safe search engine to look up a different, interesting fungus like the "Bleeding Tooth Fungus" or "Bioluminescent Fungi." Draw it in the journal.
- **Second Harvest:** Many kits can produce a second (or even third) crop of mushrooms. Let Student take the lead on setting it up for another round!