

## Spore Prints

Mushrooms reproduce using spores instead of seeds. A single mushroom spore is only 4 to 20 microns in size, which means a human could not see it without a microscope! However, there is a simple way to observe the spores of a mushroom—create an art print out of billions of spores!

The spores of a mushroom are located in a variety of places, depending on the species. Many mushroom spores are found underneath the cap inside gills or pores. When a mushroom is placed gill- or pore-side down, the spores fall onto the paper to produce a print, revealing the pattern and color of the spores. Many other mushroom forms exist, so if you find a mushroom without gills or pores, it may be holding its spores in teeth, ridges, or some other system.

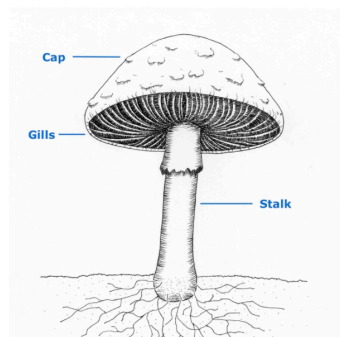
The age and moisture level of your mushroom may affect the spore print. Be sure to choose mature mushrooms that are not dried out. If you think your mushroom is too dry, try adding a single drop of water to the cap to help release the spores. Creating a mushroom spore print is truly an artform—what species and methods work best for you?

### Materials needed:

- Mushroom
- Paper
- Optional: spray adhesive or hair spray

### Step-by-step instructions:

1. Ask an adult to help you safely collect a mushroom (note: some parks do not allow mushroom collecting).
2. Remove the stalk close to the cap.
3. Place the mushroom gill-side down on paper.
4. Leave the mushroom undisturbed overnight.
5. Carefully pick up the cap to reveal your spore print.
6. Seal the print with spray adhesive or hair spray.



### Additional exploration:

- Make a spore print again, but this time, try something new!
  - > Use a different kind of mushroom.
  - > Try making a print on different colored paper .
  - > Leave your mushroom for one hour instead of overnight.
  - > Compare the print of a store bought mushroom to a fresh picked mushroom.

### Discussion questions:

- Why might a scientist make a spore print?
- How can art benefit science? How can science benefit art?
- What color were the spores in your print? Do different mushrooms have different colored spores?
- If your print was unsuccessful, why do you think the mushroom did not drop any spores?