

# Spore Print

## 100<sup>th</sup> Monkey Mushroom Farm



In this activity, you are going to collect the spores of your mushroom in a spore print. Making a spore print is a fun way to learn how a mushroom propagates (spreads its seeds) and a creative way to make mushroom art.

### Background:

What is a spore? A spore is the seed of the fungus and is the means with which the fungus reproduces. Mushrooms, the fruiting bodies of fungi, carry millions of spores in a wide variety of ways, some of which include: on the underside of the mushroom cap on gills or in tubes, on spines, pores, or wrinkled surfaces of the mushroom, enclosed in fruiting bodies (puffballs) or in a sac-like structure (flask, cup, brain or sponge fungi).

The mushrooms grown from your kit (elm oyster, blue oyster, shiitake and pioppino) all carry their spores in gills on the underside of their caps. When the mushroom ages, it begins to drop its spores. The spores generally drop close to the mushroom, but can be carried to other places by the wind or by animals. Because each spore carries 50% of the mycelium's DNA, it must combine with another compatible spore for healthy, fertile mycelium to grow.

### Materials Needed:

- A minimum of two mature mushrooms ready to drop their seeds. Look at the shape of the mushroom to know if it is mature: when the shape of the mushroom changes from turning down at the end (convex) to flattening out or turning up on the ends (convex), it is mature and ready to pick for the spore print. If your mushroom has already started dropping spores (which looks like a white or brown powder on your grow box or bag) before it has been picked, it is still perfectly fine to use in making your spore print.
- Construction or printer paper: dark paper if your mushrooms are elm oyster, blue oyster or shiitake (which will drop white spores) and light or white paper if your mushrooms are pioppino (which will drop brown spores).
- Cups or bowls large enough to cover the mushrooms.
- Hair spray or aerosol fixative used for pastels or chalk drawings

## Activity:

1. Find a place in the house that you can set up your spore print so that it can sit undisturbed. Once you set up, its best not to move the spore print.
2. Cut the caps off of the stems of your mature mushrooms (ask a parent for permission first before using a knife).
3. Place the caps, gills facing down, on the appropriate colored paper. Use dark paper if you are using an elm oyster, blue oyster or shiitake mushroom (which will drop white spores) and a light or white paper if you are using a pioppino mushroom (which will drop brown spores).
4. Cover the mushrooms with a bowl or cups so they don't dry out.
5. Let the sporulating mushroom sit, undisturbed, for at least 12 hours.
6. Carefully lift the cups or bowls off of the mushrooms and behold! You should see a beautiful spore print of your mushroom. If you do not see a spore print yet, place the mushroom back on the paper and wait another 12 hours.
7. If you wish to keep your spore print, spray it with hair spray or aerosol fixative.
8. Move your mushroom to a different spot on the same page or use a new page and repeat the process. You should be able to create additional prints; sometimes up to 5-6 prints over the course of 5-7 days. Your mushrooms should be composted after about a week.