

HOW TO MAKE A SPORE PRINT



BRITISH MYCOLOGICAL SOCIETY FUNGAL EDUCATION & OUTREACH

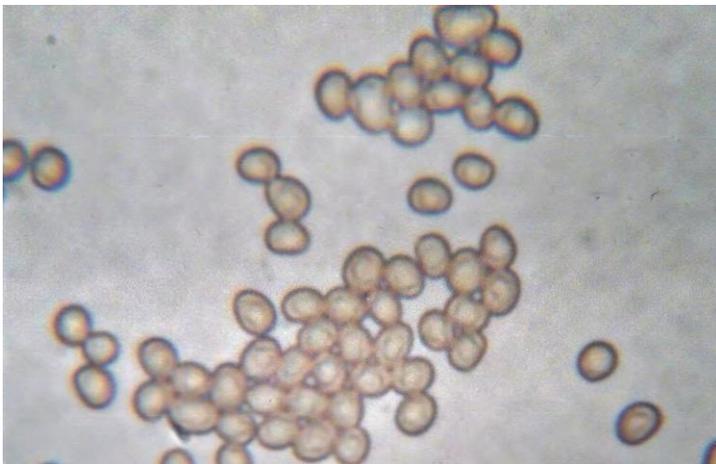
PRIMARY RESOURCE

INTRODUCTION

NATIONAL CURRICULUM AREAS COVERED:

Year 1: Seasonal Changes; **Year 2:** Living things and their habitats.

Fungi produce millions of spores, which are similar to the seeds of flowering plants. Fungi that make mushroom fruit bodies release their spores from the underside of the cap, from plate-like gills, tubes, ridges or spiky projections. Other fungi produce different shaped fruit bodies to release their spores, such as cups, clubs, ears and balls. When a mushroom is mature its cap expands and the gills are seen. Spores can then drop from the gills and are picked up by wind currents and carried away. Spores are so small that you normally need a microscope to see them, but with a spore print thousands of spores are seen all together.



Spores of the cultivated mushroom viewed from a spore print under a microscope at high magnification



A close up of the gills of the cultivated mushroom viewed under a stereo microscope.

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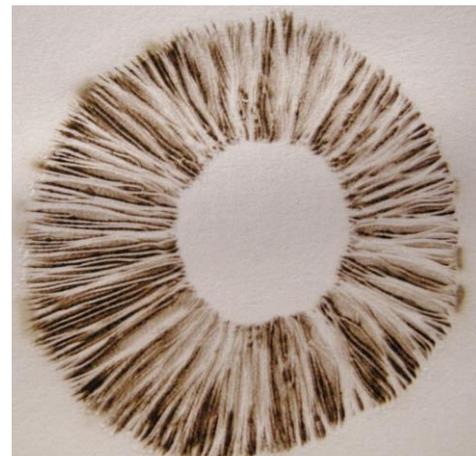
MATERIALS NEEDED PER CHILD

A MUSHROOM

A PIECE OF WHITE/BLACK CARD

A BOWL TO COVER THE MUSHROOM CAP

HAIR SPRAY (OPTIONAL)



METHOD

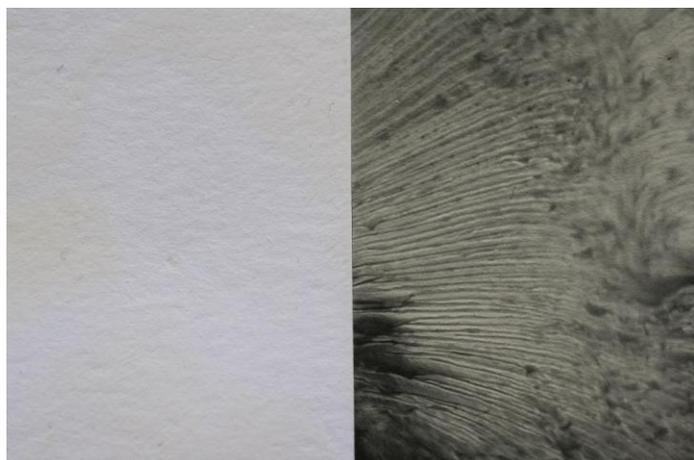
1. Gently place your mushroom cap, face down on the piece of card. There is no need to press it down.
2. Cover the mushroom with a bowl (to stop it drying out and to reduce air currents that might spoil your print by blowing the tiny spores around).
3. Leave everything where it is for at least 2 hours (if freshly picked) or longer (overnight if shop brought).
4. Carefully remove the bowl and the mushroom cap. You should see a pattern on the card that matches the pattern of gills on the mushroom!
5. You have successfully made a spore print. To prevent smudging, 'fix' your spore print with hair spray.

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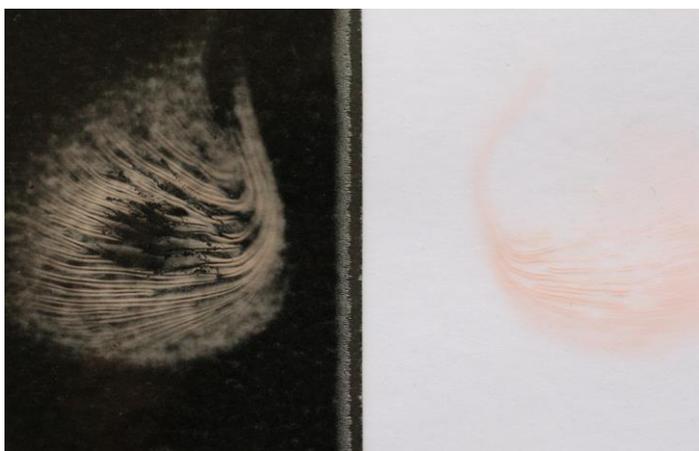


DIFFERENT FUNGI PRODUCE DIFFERENT COLOURED SPORE PRINTS:

Fungus spores drop directly downwards from the gills of a mushroom and land on top of one another, making a pattern that resembles the gill pattern underneath the cap. Fungus spores can be coloured. Sometimes this is not revealed until a spore print is made. If you are not sure about the colour of the spores produced by a fungus then carry out a spore print on half black and half white card as shown below. The spore print colour can often help to identify a particular fungus. If spores are allowed to drop onto glass slides, it is possible to view the spores that make up the spore print, under a microscope with high resolution. It is not possible to see individual spores without the aid of a microscope because they are too small to see with the naked eye.



The spore print (left) produced by the Shiitake mushroom (right)



The spore print (left) produced by the Pink Oyster mushroom (right)