



GROW WILD
FLOWERS TO THE PEOPLE



Royal Botanic Gardens
Kew



British Mycological Society promoting fungal science

Let's be fungi!

Group activity

When you see a mushroom, this is only part of the organism. Like a plant that bears fruit, the mushroom is the fruit body of the fungus. The function of the mushroom is to produce spores (whereas the fruits of plants contain seeds), which travel away from the fungus and allow it to reproduce.



Mycelium spreads out in search of water and food

If a spore lands somewhere suitable for growth it will germinate, forming a fine network of threads called mycelium. This is actually the main body of the fungus. The mycelium spreads out in search of water and food.

Unlike plants, fungi can't make their own food so instead they produce enzymes that are released from the mycelium which break down dead animal and plant waste. The products of this breakdown are then reabsorbed by the fungus for growth and some is recycled back into the environment. When conditions are right the fungus will produce its fruit body containing millions of tiny spores.

Once a spore is released from a fungus fruit body (a mushroom) and is carried to a suitable place, it will germinate and begin to grow, starting the life cycle over again.



The function of the mushroom is to produce spores

Let's get to it – you will need:



A group of four or more



A clear indoor space like a hall



Cocktail umbrellas



Small plastic tubes of glitter



Balls of string



A water spray bottle or water pistol



Bread sticks



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Now you're ready to be fungus

At the start of the activity each person should be given a bag containing a bread stick (obviously, allergies should be checked first), a cocktail umbrella and a small tube of glitter.



Step one: The mycelium grows

Do

The fungal spores begin to germinate and form mycelium. Depending on how many people there are in the group, choose 1 or more to be the spore/s. The person with the ball of string holds the end and passes the ball to another person. They in turn unravel the string a few metres, then passes the ball on to the next. This continues until all of the balls of string have been unravelled across the room and everyone is holding the string at intervals throughout.

Discuss

The string represents the mycelium growing and searching for food.

Step two: The mycelium finds and breaks down food

Do

In order to grow, the fungus must first find food and break it down. The sorts of food that a fungus eats are dead trees and leaves (as well as dead animals). All of the people holding the mycelium (string) take out their breadstick representing a dead branch from a tree. Eat the breadsticks.

Discuss

The breadstick is broken down into simple sugars by special substances in your mouth called enzymes. Fungi use enzymes to break down wood. The difference is that we 'take in food' (like bread) and digest it using enzymes in our mouths and stomachs. But fungi send enzymes out of their growing mycelium to break down dead plants, animals and wood - and then 'take in' the nutrients through their mycelium.



**Fungi eat
dead trees and
leaves, as well as
dead animals**

Photograph: Wavipicture/Thinkstock.



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Step three: The fruit body appears

Discuss

When the mycelium has grown and if conditions are just right (optional: spray the group with water – all living things need water to grow!) fungi produce their fruit bodies.

Do

Let's see the fruit bodies! (Everyone opens the cocktail umbrellas).



If the conditions are right, fungi produce their fruit bodies

Step four: The fungal spores are released

Discuss

Fungi produce their fruit bodies when the conditions are just right for them to release their spores and reproduce – remember that spores are the offspring of the fungus and are similar to the seeds of flowering plants. There are millions of spores produced in each fruit body!

Do

(Release the spores.... Open the small tubes and sprinkle glitter!)

Discuss

If the fruit body of a fungus has a stem and a cap it is called a mushroom or toadstool. There are many different shapes and sizes of fruit body produced by fungi; including cups, flasks, clubs, brackets, trumpets, balls, ears and brains! Once the spores are released the cycle can begin again.



There are many different shapes and sizes of fruit body produced by fungi

Learn more about the amazing kingdom of fungi and find more great resources:
<http://www.britmycolsoc.org.uk/education/resources-and-materials>

Had fun learning about fungi? Share your stories and pictures with us!

