

**Mary
Gillham
Archive
Project.**

Nature detectives: identifying wildlife for beginners!

A Dedicated Naturalist: The Dr Mary Gillham Archive Project is a Heritage Lottery Funded project to celebrate the life and work of **ecologist** Dr Mary Gillham.

From 1963-2013 Dr Mary Gillham (MBE) spent a huge amount of time exploring South Wales and recording the species she found, sometimes whilst teaching students and sometimes to provide evidence for protecting an area. Sometimes she did it just for fun!



? An **ECOLOGIST** is someone who studies wildlife and learns how to identify different species.

Time to be a detective!

Identifying wildlife is like being a detective - you have to look for clues. The more you practice, the more easily you will spot clues.

Scientists and naturalists use a system to sort out all living things into groups of things with shared features, so that when they name a particular plant or animal, for example, they know they are all talking about the same thing. This system is called '**taxonomic classification**' or '**taxonomy**'. You are going to practice using taxonomy to identify three big groups of wildlife: **animals, plants** and **fungi**.



You will need: a pencil, sensible shoes and a coat. Let's go!

Step 1: What kingdom does it belong to?

When you find something you want to identify, you need to narrow down what it could be. An easy way to start is to ask, 'Are you an **animal**, a **plant**, a **fungi** or something else?' These big categories are called '**kingdoms**'. There are many kingdoms but we're going to focus on **plants, animals** and **fungi** to get started.

Animals can move from place to place on their own at some point in their lives. They also have to eat other things; they cannot make their own food.

Look for things that can walk, jump, fly, swim and slither. SEE ANIMALS

Plants stay in one place (although they may grow over large areas) and they make their own food using sunlight collected on leaves (photosynthesis).

Look for green/brown things with leaves, flowers, or bark that stay in one place. SEE PLANTS

Fungi are different to plants and animals—they usually eat already dead material (cannot make their own food). They stay in one place (but may grow over large areas) and produce spores.

Look for crustlike/ball shaped things in different colours that stay in one place. SEE FUNGI

Classification of living things:

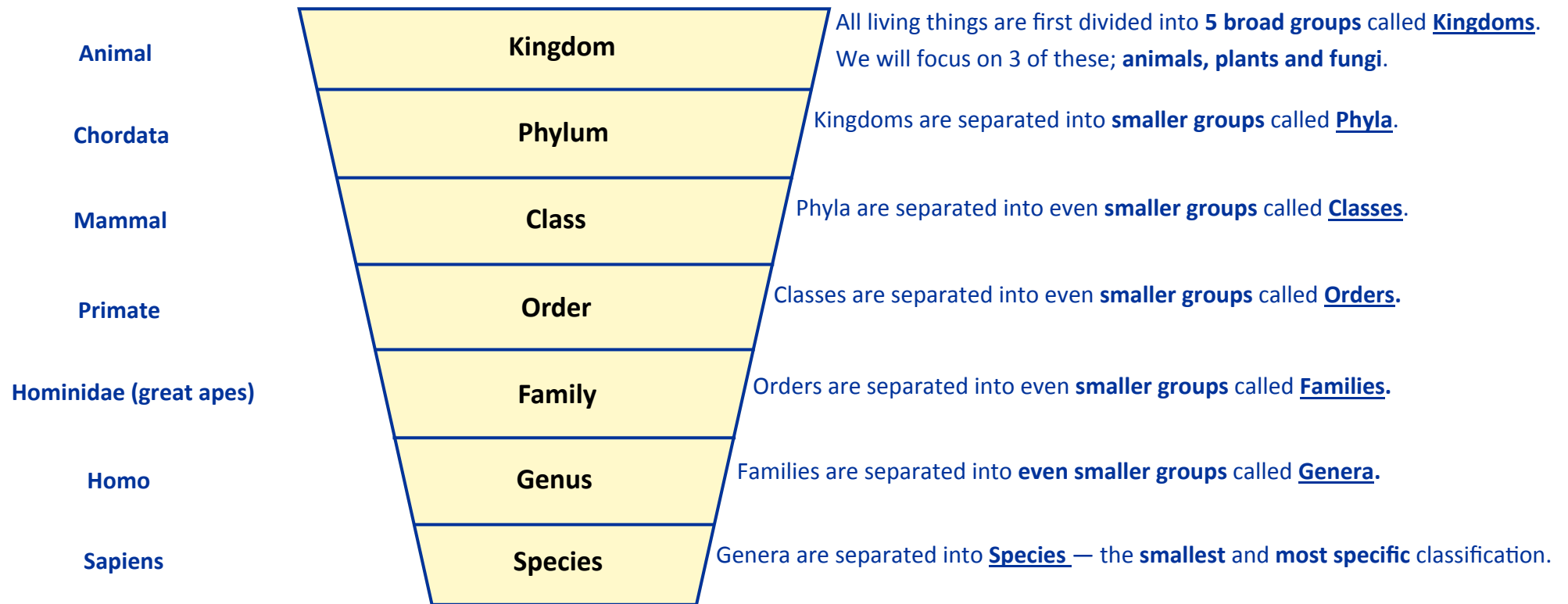
All living things on the planet are **separated** or **grouped together** based on their **similarities** and **differences**.

There are 7 major levels of classification (**Kingdom, Phylum, Class, Order, Family, Genus, Species**).

These descend in order of size meaning **Kingdom** is the **biggest** group and **Species** is the **smallest** and most specific.



Example: Human classification



Homo sapiens (Today's humans)

A fun way to remember the different levels of classification in order...

Karate **P**igs **C**an **O**nly **F**ly **G**oing **S**ideways

Identifying Fungi

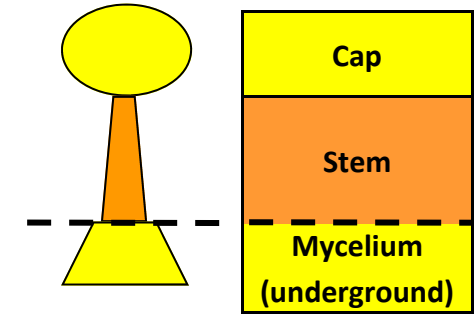
Fungi are not plants—they cannot make their own food and usually eat things that are already dead!

They stay in **one place** (but may grow over large areas) and produce **spores**.

Only the **fruiting body** (the stem and the cap) of a fungus can be seen — it is **above ground**.

The **mycelium** is the branching part of the fungus **hidden underground**. The fungus uses this to **absorb nutrients** from dead and decaying things.

The mycelium of fungi are known as the **'wood wide web'** as they branch out far distances and connect to each other underground!



Fungi come in lots of different shapes and sizes as you can see below. Tick the shapes that you find.



Puffball/cushion fungi have a round, ball- or pear-shape



Bracket fungi look crust-like and are found on dead wood



Jelly fungi are soft and jelly-like with an uneven shape



Gilled fungi are the typical 'toadstools'. They have fleshy gills under the cap



'Cupped' fungi are shaped like a bowl or flattened cup



Club fungi are upright and unbranched with a 'clubbed' shape.

Identifying Fungi

Fungi: have a **cap**, a **stem** and **mycelium hidden underground**. Tick the different types of **fungi** you find, based on their shape.



Puffballs have a pale **ball-shaped** body covered in tiny **spines**



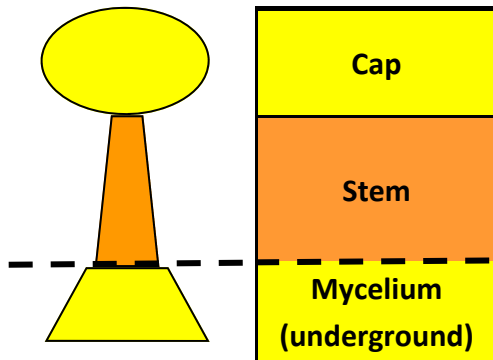
Stinkhorns have a cap covered in **foul-smelling slime!**



Fly agarics have a **red cap** with **white spots**. A famous mushroom



Shaggy inkcaps have a **long white cap** with shaggy **brownish scales**



Honey fungus caps are **caramel-coloured** and found at the **base of trees, hedges and shrubs**



Turkey tails have **stripes of contrasting colours** (like a turkey's tail!). They are **crust-like** and found on **dead wood**



Dead man's fingers are **tough** and **black** in colour. They are shaped like **fingers!**

Identifying Fungi

What date is it today?

Where are you looking for fungi?

How many of each type of fungus did you find?

Puffballs	
Stinkhorns	
Fly agarics	
Shaggy inkcaps	
Honey fungus	
Turkey tails	
Dead man's fingers	

Draw a picture of your favourite fungus that you found:



Email your finds to: info@sewbrec.org.uk

Next time you come to this place you can use this list to compare whether you find the **same things**. This is how **ecologists** like Mary **record and check wildlife!**