

# Classification Of Living Things

## What is classification?

Classification of living things is called 'taxonomy'. This is when scientists organise organisms into groups based on the features they have in common.

The first group of classification used is 'Kingdoms'. There are five or six of even seven Kingdoms, depending on the system of classification you use (there is still some dispute in the scientific community about how to classify some microscopic organisms). In this case, we will be looking at the five-Kingdom classification system.

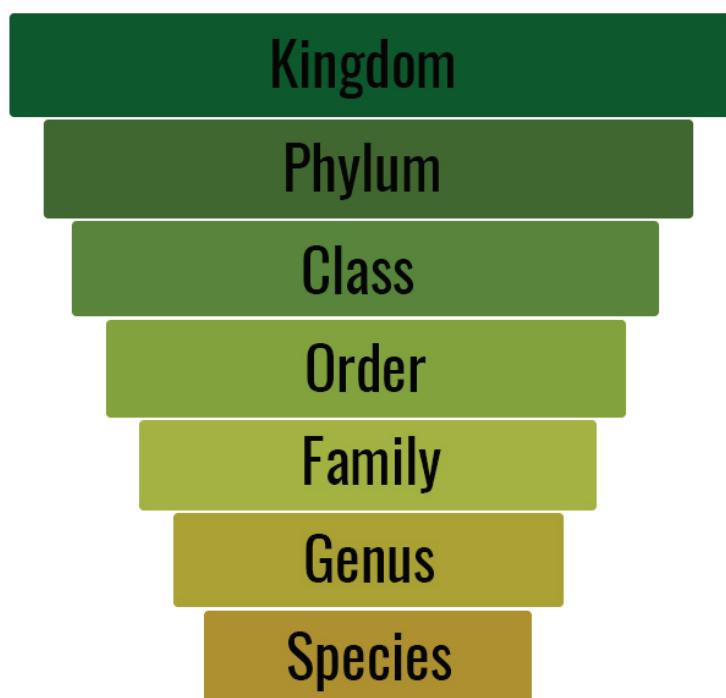


## 5 Kingdoms

1. Kingdom Animalia (animals)
2. Kingdom Plantae (plants)
3. Kingdom Fungi (fungi)
4. Kingdom Protista (protists)
5. Kingdom Monera (bacteria)

Each Kingdom is then split into smaller groups, called Phyla. Each Phylum is split into smaller groups called Classes, which are then split into smaller groups called Orders, which are split into Families, which are split into Genera, which are split into Species. A Species is a single organism, not a group. Some examples of Species include the eastern rosella, the death cap fungus, and the river red gum.

All seven types of groups go in order from largest to smallest:



As the groups are split into smaller groups, the organisms become more and more alike. For example, in the Class Mammalia (mammals) you will find cats, horses, elephants and monkeys. These animals have more in common with each other (such as a neocortex, hair, three middle ear bones and mammary glands) than with other animals such as birds, reptiles or fish. However, there are obviously big differences between cats, horses, elephants and monkeys.

Each belongs to a different Order:

- Cat – Order Carnivora (carnivores)
- Horse – Order Perissodactyla (odd-toed ungulates)
- Elephant – Order Proboscidea (having a trunk)
- Monkey – Order Primates

Obviously there are also differences between organisms within an Order. Take Primates, for example: within this order there are the tiny tarsiers of Southeast Asia, the baboons of Africa, and the great apes, including humans. There are 16 families of primates.

One of these families – Hominidae – includes the great apes. There are seven living species divided into four genera (genus):

- Pongo (the Sumatran and Bornean orang-utans)
- Gorilla (the eastern and western gorilla)
- Pan (the common chimpanzee and bonobo)
- Homo (the human).

## Scientific names

The other thing that scientists do is to give organisms strange-sounding, double-barrelled (binomial) names. Scientists around the world have agreed to use the ancient language of Latin to name organisms. We often use an animal's common name when talking about them in an everyday way; however, when we want to talk about them scientifically, it is useful to use the scientific Latin name to avoid confusion.

For example, we might call the bird on the right a magpie-lark, a mudlark, a pee-wee, a peewit or a Murray magpie depending on where we live, but how can we be sure that anyone else knows which bird we are actually talking about. Calling the bird by its scientific name – *Grallina cyanoleuca* – means other people (including scientists) know which bird we're referring to.



Each species gets its own scientific name. The first name refers to the Genus group the species belongs to, while the second name is that species' own name. In the case of the *Grallina* genus (that the magpie-lark/mudlark/pee-wee/pee-wit/Murray magpie belongs to), there is one other species in this Genus, the torrent-lark (*Grallina bruijni*) found in Indonesia and Papua New Guinea. One other thing of note is that the Genus name is always capitalised (*Grallina*), while the species name isn't (*bruijni*).

## An example from top (Domain) to bottom (species)

Here is the full taxonomy of the eastern-grey kangaroo (*Macropus giganteus*), from Kingdom to Species:

- Kingdom: Animalia
- Phylum: Chordata
- Class: Mammalia
- (Infraclass: Marsupialia)
- Order: Diprotodontia
- Family: Macropodidae
- Genera: *Macropus*
- Species: *giganteus*

