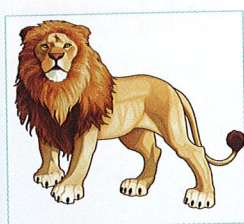


## All About Fungi

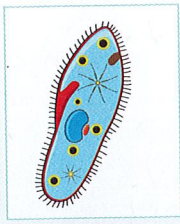
All living things are classified into six kingdoms, as shown below. Fungi (plural for fungus) are a group of organisms that are neither plant nor animal and so are classified into their own kingdom. The three types of fungi are moulds, yeasts and mushrooms.



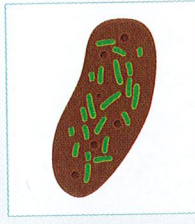
animal



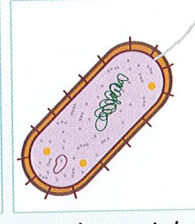
plant



protista



archaeobacterial



eubacterial



fungi

Most natural recycling is only possible because fungi and bacteria feed on and process dead plant and animal remains. This is called decomposition. Enzymes are substances released by fungi to break down dead remains, which enables them to be used as food for the fungi. The decaying remains release organic, reusable nutrients into the soil and atmosphere.

Fungi are one of the most important groups of organisms on the planet. A common fungi, *Penicillium notatum*, is responsible for the discovery of perhaps the most famous of all antibiotic drugs, penicillin. The discovery of antibiotic drugs transformed healthcare around the world. They are used to battle infections in both humans and animals.

Mould is a type of fungus that can be both useful and damaging. Mould likes to grow in damp, warm conditions. This is why you can sometimes see mould growing on food in plastic packets as both heat and moisture are trapped inside. Some moulds can be harmful, so don't eat food that has gone mouldy, like bread.

Some cheeses use mould to ripen and enrich their flavour. A wheel of camembert is traditionally covered in a fine, white layer of mould. The mould influences the flavour of the cheese by working from the outside in. Blue vein cheese is injected with the *Penicillium* mould to create a distinct look and taste.

Yeast is a fungus that is the driving force behind fermentation—the process that allows a heavy ball of dough to become a well-risen loaf of bread. Fermentation occurs when yeast breaks down sugar, producing carbon dioxide and alcohol (if no air is present) or acid (if air is present). It is the bubbles of carbon dioxide that make bread dough rise.

All mushrooms are fungi but only some fungi produce mushrooms. Certain types of mushrooms are edible, such as oyster and button mushrooms. Panther cap, death cap and the destroying angel are poisonous mushrooms, which are not suitable for human consumption. The outcome of eating these mushrooms can be fatal.

