

Glossary

Adaptation a physical or behavioural feature of an organism that helps it to survive in its habitat

Agaric [**ag**-uh-rik or uh-**gar**-ik] a mushroom with gills

Alga (pl. **algae**) [**al-ga**; **al-jee**] a simple, flowerless green plant usually living in water

Annulus (see **ring**)

Antibiotic a drug that interferes with the growth of bacteria. Penicillin, made by mould, was the first antibiotic. Antibiotics are widely used in the prevention and treatment of infectious diseases.

Ascomycete [**as-kuh-mahy**-seet] a fungus that reproduces by making spores inside a sac-like structure called an **ascus**

Autodigestion self-digestion

Bacteria any of a large group of one-celled organisms that lack a cell nucleus; reproduce by fission or by forming spores; and in some cases cause disease

Basidiomycete [**buh-sid-ee-oh-mahy**-seet] a fungus that reproduces by producing spores on the outside of a club-shaped cell called a **basidium**.

Bioremediation the use of biological agents, such as bacteria, fungi, or green plants, to remove or neutralize contaminants, as in polluted soil or water. Bacteria and fungi generally work by breaking down contaminants such as petroleum into less harmful substances.

Bolete [**boal**-eat] a fleshy mushroom with a spongy layer of tubes underneath its cap

Button a young mushroom before it opens up

Cap the cap-like part of the fruiting body which supports the spore-bearing surface, also called the pileus

Carnivore a living thing that eats meat. Carnivores are primarily mammals, such as tigers and dogs but can also be plants, such as the Venus flytrap.

Cell wall the protective, rigid, outer layer of the cells of plants, fungi, and bacteria

Cellulose a compound composed of glucose units; it's a major constituent of wood and of plants' cell walls

Chitin [**kahy**-tin] a chemical found in the cell walls of fungi, as well as in the shells of lobsters and insects

Chlorophyll the green pigment found in plants that permits them to make their own food through photosynthesis

Citric acid a colourless translucent crystalline acid; derived by fermentation of sugar and used mainly in the flavouring of beverages, confections, and pharmaceuticals

Coprophilous [**kuh-prof**-uh-luh s] living or growing on dung, as certain fungi

Cup (also known as the **volva**) the sac-like cup or tissue surrounding the base of the stem after the veil has broken

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Cup fungi ascomycetous fungi that expose their hymenium in a wide concave fruitification; most common in the spring

Decomposers organisms that are responsible for breaking down organic matter into a simpler form and recycling nutrients into the soil

Dichotomous key [di-kot-uh-muhs] a key for the identification of organisms based on a series of choices between alternative characteristics

Dutch elm disease a disease of elm trees caused by the fungus *Ceratocystis ulmi*; it is spread by the European elm bark beetle and by the contact of the roots of healthy elms with those of infected trees. It produces brown streaks in the wood and results in the eventual death of the tree. No cure has been discovered, but prevention methods include the injection of insecticide into healthy trees and the destruction of all elms in infected areas.

Ecosystem all the living and non-living things in a certain area including air, soil, water, animals, and humans

Enzyme [en-zahym] any of various proteins originating from living cells and capable of producing certain chemical changes in organic substances by catalytic action, as in digestion

Eukaryotic single-celled or multicellular organisms whose cells contain a distinct membrane-bound nucleus.

Fairy ring an arc or circle of mushrooms

Fruiting body the part of the fungus where the spores are produced; typically called the mushroom

Fungophile someone who loves fungi

Fungophobia someone who fears fungi

Fungus (pl. **fungi**) [fuhng-guhs; fuhn-jahy, fuhng-gahy] one of the kingdoms of living things. They lack chlorophyll, have no true roots or stems, do not produce their own food and reproduce from spores

Germination the process whereby seeds or spores sprout and begin to grow

Gills plate-like structures on the under-surface of the cap of most mushrooms.

Glycogen [glahy-kuh-jen] a polysaccharide, molecularly similar to starch, constituting the principal carbohydrate storage material in animals and occurring chiefly in the liver, in muscle, and in fungi and yeasts

Habitat a place with a particular kind of environment suitable for the growth of an organism

Herbivore an animal that feeds chiefly on plants

Hypha (pl. **hyphae**) [hahy-fuh or hahy-fee] individual thread-like filament that forms the mycelium and fruit body. Hyphae secrete enzymes that digest food so that it can be absorbed by the fungus.

Kingdom the highest rank of the classification into which living organisms are grouped in Linnaean taxonomy, ranking above a phylum. There is debate as to whether there are 5, 6, or 7 kingdoms.

Lichen [lahy-kuh n] the symbiotic association of a fungus with an alga. The fungal component of a lichen absorbs water and nutrients from the surroundings and provides a suitable environment for the alga. The algae live protected among the dense fungal hyphae and produce carbohydrates for the fungus by photosynthesis.

Crustose crust-like lichens that may be buried in tree bark, or even between the crystals of rocks

Foliose flat leaf-like lichens

Fruticose miniature shrub-like lichens--one lichen of this type is the famous "reindeer moss" of Lapland

Squamulose scaly lichens made of numerous small rounded lobes, intermediate between foliose and crustose lichens.

Life cycle the complete life history of an organism from one stage (e.g.; the spore) to the recurrence of that stage. The life cycle of an agaric is: spore-->germination (hyphae)-->mycelium-->primordium -->button-->mushroom-->spore.

Mildew [mil-doo] any of various obligately parasitic fungi that form a superficial, usually whitish growth on living plants

Mould [mohld] a growth of minute fungi forming on vegetable or animal matter, commonly as a downy or furry coating, and associated with decay or dampness. Some moulds are added to food intentionally.

Mushroom the fruiting body of a fungus, typically containing a cap with spore producing gills resting on top of a stalk. The purpose of the mushroom is to manufacture and release spores.

Mycelium (pl. **mycelia**): [mahy-see-lee-uh m] a mass of hyphae (usually underground) that makes up the main body of the fungus

Mycologist a scientist who studies fungi

Mycology [mahy-kol-uh-jee] the scientific study of fungi

Mycorrhiza (pl. **mycorrhizas**): [mahy-kuh-rah-y-zuh / -zee] "fungus root"; the formation of a symbiotic

relationship with plant roots. The fungus obtains sugars from the plant, whilst the plant gains increased supplies of nutrients extracted from the soil by the fungus.

Nematode [nem-uh-tohd] unsegmented worms with an elongated rounded body which is pointed at both ends; mostly free-living but some are parasitic

Nutrient cycling all the processes by which nutrients are continuously transferred from one organism to another in an ecosystem. For instance, the **carbon cycle** includes uptake of carbon dioxide by plants, ingestion by animals, and respiration and decay of the animal by decomposers.

Omnivore an animal that feeds on both animal and vegetable substances

Organic matter anything that is or was once alive

Parasite an organism living in or on another living organism (host) from which it extracts nutrients

Parasitic mushroom/fungi a mushroom that lives on or feeds off a living animal or plant or another fungus

Penicillin (see **antibiotic**)

Photosynthesis the process in green plants and certain other organisms by which carbohydrates are synthesized from carbon dioxide and water using light as an energy source

Pores (also called **tubes**) hollow cylinders containing spores and forming the spongy underside of bolete and polypore caps

Potato blight any of various highly destructive fungus diseases of the potato

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Protozoa [proh-tuh-zoh-uh] any of a large kingdom of single-celled, usually microscopic, eukaryotic organisms, such as amoebas, ciliates, flagellates, and sporozoans

Primordium an aggregation of cells indicating the first trace of an organ or structure

Ring (also called an **annulus**) a circular skirt on a mushroom stalk formed by a broken veil

Rhizomorph [rahy-zuh-mawrf] a dense mass of hyphae forming a root-like structure characteristic of many fungi

Sac fungi (also called **Ascomycetes**) fungi that make their spores in sacs. This group of fungi includes single-celled bread yeast and multi-celled truffles. Other types of sac fungi can harm plants and animals.

Saprobic mushroom a mushroom that feeds off dead trees, dung, leaves, litter, or other organic matter

Scales raised pieces of broken skin on a cap or stalk surface

Sclerotium (pl. **sclerotia**) [skli-roh-shee-uh m; -shee-uh] a dense mass of branched hyphae, as in certain fungi, that contain stored food and are capable of remaining dormant for long periods (e.g., Canadian Tuckahoe)

Seed a mature fertilized plant ovule consisting of an embryo and its food source and having a protective coat; common to plants

Species the major subdivision of a genus, regarded as the basic category of biological classification, composed of related individuals that resemble one another, and are able to breed among themselves

Spore the reproductive unit of fungi, similar to the seed in plants. It differs from a plant

seed in that it does not have its own food reserves.

Spore case (also called **sporangium**) the part of mold that produces spores

Spore print the picture formed on paper by mushroom spores; the print's colour and pattern help in identification

Stalk (also called the **stem** or **stipe**) the part of the mushroom that holds up the cap; similar to the stem of a plant

Starch a carbohydrate, occurring in the form of minute granules in the seeds, tubers, and other parts of plants, and forming an important constituent of rice, corn, wheat, beans, potatoes, and many other vegetable foods

Symbiosis a relationship between two different organisms that is beneficial to both. (e.g. mycorrhizal fungi and plants; a fungus and an alga in a lichen).

Taxonomy the science of classification; the arrangement of organisms into groups based on their natural features

Toadstool a popular name for a poisonous mushroom

Toxin a poisonous substance

Tubes (see **pores**)

Universal veil the tissue that covers and protects a developing mushroom and that breaks as the mushroom grows

Volva [vol-vuh] (see **cup**)

Yeast a single-celled fungus such as Brewers' Yeast (*Saccharomyces cerevisiae*) used in brewing and baking.