

- They form mycelia/ hyphae
- Largest
- Fungi reproduce by several mechanisms e.g.
- Dimorphic fungi= fungi that don't know if they want to be unicellular or multicellular-e.g. these can grow into mould or yeast depending on environmental stimuli (such as temperature, CO₂)

E.g. Blastomyces dermatitidis

Protozoa

- Protozoa are chemoheterotrophs
- unicellular
- Some are free living and some are parasites
- Have typical eukaryotic features e.g.
 - Membrane bound organelles
 - Multiple linear chromosomes
 - DNA associated with histones
 - Genes contain introns and exons
 - 80S ribosomes
- Don't have a cell wall
- Have 3 mechanisms of movement

Some divide asexually and others divide sexually:

- They can reproduce asexually
 - Binary fission- one cell splits into two
 - Schizogony- nucleus divides many times before cell divides, the single cell separates into daughter cells
 - Budding- bud forms and pinches off parent cell
- Or they can reproduce sexually by fusion of gametes e.g. plasmodium
- Some produce cysts

Algae

- Are photoautotrophs
- They are oxygenic
- derived from cyanobacteria
- They have different pigmentation
- Have many eukaryotic features; organelles, multiple linear chromosomes, genes have introns and exons, DNA associated with histones, 80S ribosomes
- cellulose cell wall
- unicellular or multicellular
- Live in water e.g. snow, freshwater, marine
- lack organs found in plants such as roots

There is a debate to whether viruses are living or not