

A bacterial cell consists of **cytoplasm** and a **membrane** surrounded by a **cell wall**; the genes are not in a distinct nucleus; some of the genes are located in circular structure called **plasmids**

Yeast is a **single-celled** organism. Yeast cells have a **nucleus**, **cytoplasm** and a **membrane** surrounded by a **cell wall**

Cells may be specialised to carry out a particular function

## 1.1 Cell Structure

Most **animal cells** (and most human cells) have the following parts:

**Nucleus**, which controls the activities of the cell

**Cytoplasm**, in which most of the chemical reactions take place

**Cell membrane**, which controls the passage of substances into and out of the cell

**Mitochondria**, which is where most of the energy is released during respiration

**Ribosomes**, which is where protein synthesis occurs

**Chloroplasts**, which absorb light energy to make food

A permanent **vacuole** filled with cell sap

**Cell wall**, made from cellulose which strengthens the cell

In addition to the above, **plant cells** often have:

