Plant and animal cells and their parts

- Animal cell: **cell membrane, cytoplasm, nucleus, mitochondria, ribosomes**.
- Plant cell: all of those, plus **cell wall, large sap vacuole** and (in green parts) **chloroplasts**. Onion epidermis: no chloroplasts.
- Nucleus: **controls all the activities of the cell**. Ribosomes: protein synthesis — seen only with an electron microscope.
- Drawing: large, clean single lines, no shading; ruled label lines that touch the part, no arrows.
- Magnification: same dimension, same unit; answer **× 2.5** (1 d.p., no unit). 1 mm = 1000 µm.

Two formulas

$$\text{magnification} = \frac{\text{length of drawi}}{\text{length of photogr}}$$

answer: × 2.5, no unit

$$\text{actual size} = \frac{\text{image size}}{\text{magnification}}$$

answer has a unit (mm or µm)

plant cell	animal cell
has a cell wall	no cell wall
large sap vacuole	no large vacuole
chloroplasts in green parts	no chloroplasts
regular, box-like shape	no fixed shape