

Organisation of the organism

Cell structure

Plant cells only

Cell wall Chloroplasts Large vacuole

Plant and animal cells

Nucleus Cell membrane Mitochondria Ribosomes

Bacterial cell

Circular DNA Plasmids Cell wall

Specialised animal cells

Ciliated cell: moves mucus Neurone: conducts impulses Red blood cell: oxygen
Gametes: reproduction

Specialised plant cells

Root hair: absorption Palisade: photosynthesis

New cells from division

Existing cells divide

Levels: cell to organism

Tissue Organ Organ system Organism

Size of specimens

Magnification = image ÷ actual

No units

Measure in mm

Use a ruler

Actual size = image ÷ magnification

1 mm = 1000 µm Supplement

mm to µm: × 1000 µm to mm: ÷ 1000