★ **HIGHER TIER ONLY** content is highlighted in blue. Foundation students — focus on the un-highlighted sections.

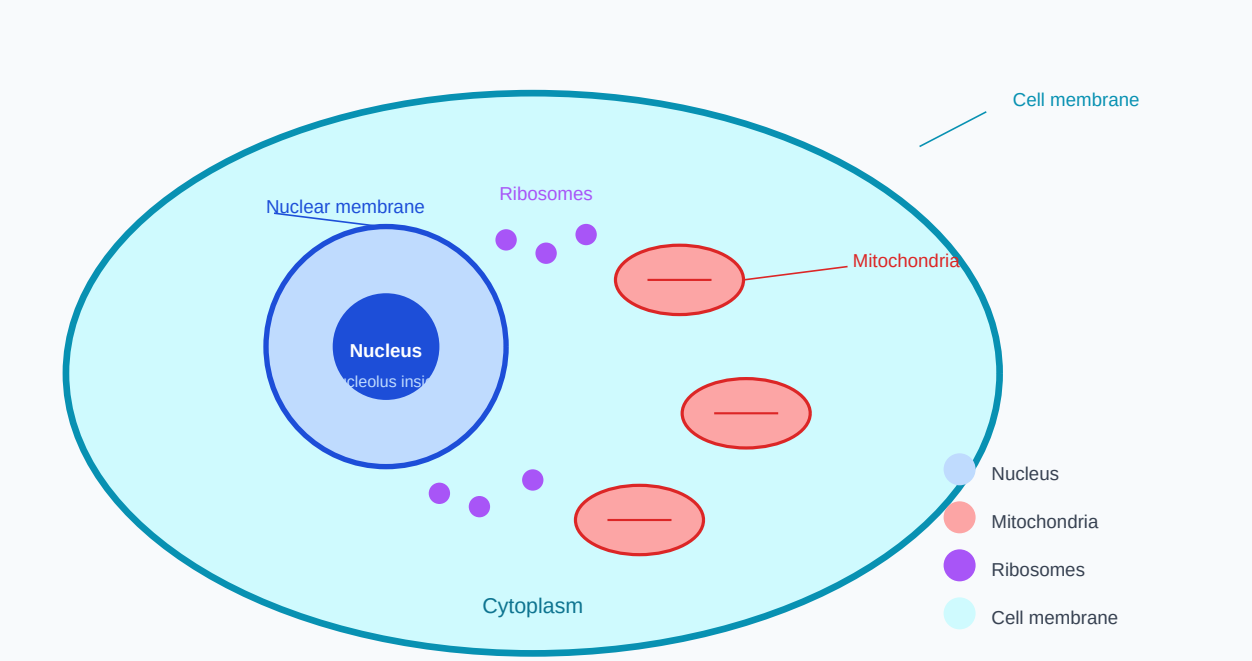


*Fig 1: Structure of a typical animal cell*

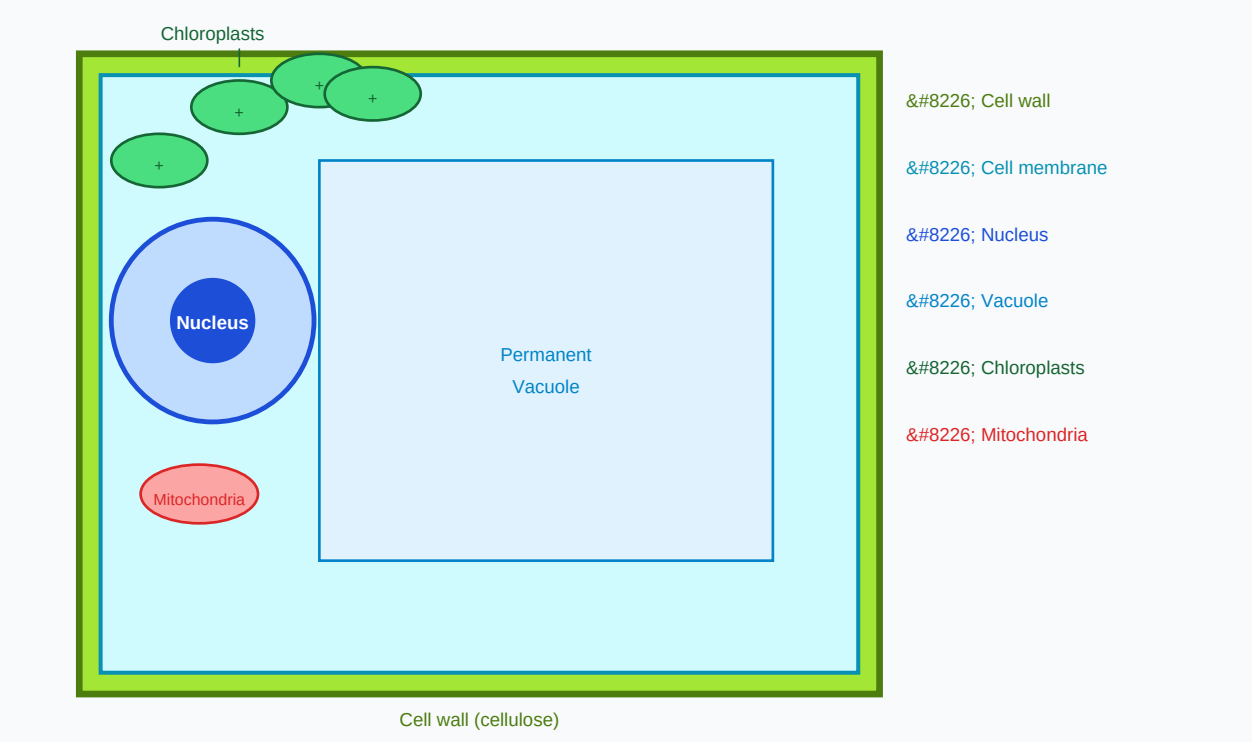


*Fig 2: Structure of a typical plant cell*

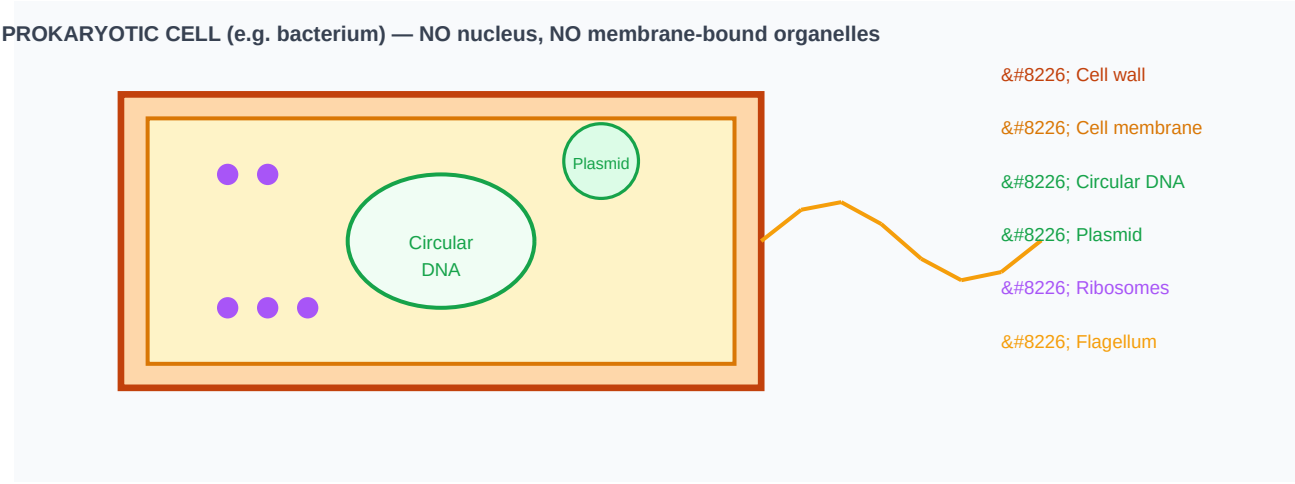


*Fig 3: Structure of a bacterial (prokaryotic) cell*

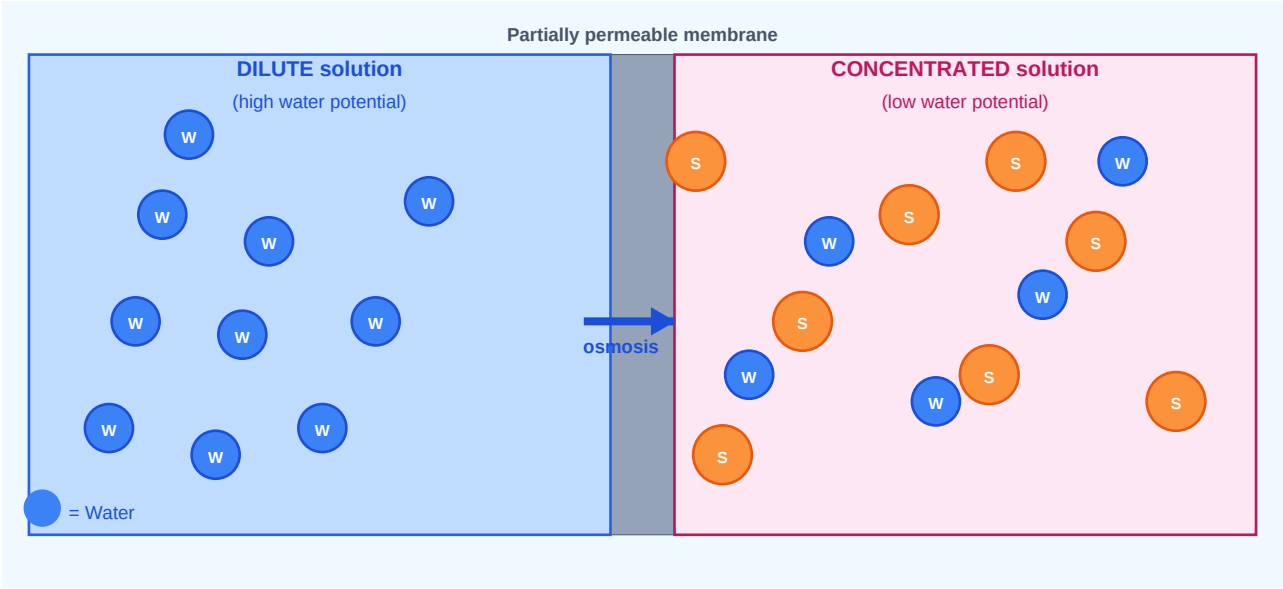


*Fig: Osmosis — water moves from high to low water potential*

■ **Exam Tip:** Aerobic respiration ALWAYS releases MORE energy than anaerobic. Only use anaerobic when oxygen runs out.

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## Respiration Comparison

| Feature | Aerobic | Anaerobic |
|---|---|---|
| Oxygen | Required | Not required |
| Energy | Lots | Very little |
| Products (animals) | CO2 + water | Lactic acid |
| Products (yeast) | CO2 + water | Ethanol + CO2 |
| Location | Mitochondria | Cytoplasm |