*This is the **Higher Separate** version — includes all Higher Tier content (marked ★) and all Separate Science content.*

Blood is a tissue with four components, each adapted for a specific function.

- Red blood cells: no nucleus, biconcave, haemoglobin — carry O■ as oxyhaemoglobin
- White blood cells: phagocytes (engulf pathogens), lymphocytes (produce antibodies)
- Plasma: liquid — carries CO■, glucose, amino acids, urea, hormones
- Platelets: fragments involved in blood clotting

Key Terms

Haemoglobin	Protein in RBCs binding O■ in lungs, releasing in tissues
Phagocytosis	Engulfing and digesting pathogens by phagocytes

■ **Exam Tip:** For red blood cells: always mention no nucleus (more space for haemoglobin), biconcave (increased surface area), haemoglobin (carries O■). All three for full marks.