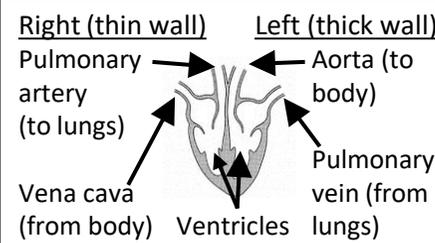
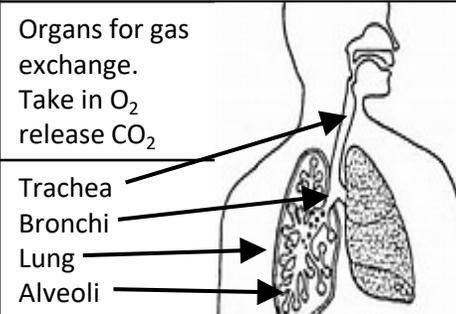


## Key points to learn

1. Blood	A tissue of plasma, red blood cells, white blood cells and platelets
2. Plasma	Yellow liquid that transports: <ul style="list-style-type: none"> <li>Red and White Blood cells</li> <li>Waste carbon dioxide to lungs</li> <li>Urea from liver to kidneys</li> <li>Digested nutrients to cells</li> </ul>
3. Red blood cells	Biconcave discs with no nucleus. Packed with red haemoglobin that carries oxygen to body cells
4. White blood cells	Part of the body's defence against microorganisms
5. Platelets	Small pieces form clots over cuts
5. Circulatory system	Transports substances to/from body cells. Made up of: <ul style="list-style-type: none"> <li>Blood</li> <li>Blood vessels (arteries, veins and capillaries)</li> <li>The Heart</li> </ul>
6. Arteries	Carry blood away from your heart at high pressure
7. Veins	Carry blood back to your heart. Use valves to stop reverse blood flow
8. Capillaries	Network of tiny, thin vessels connecting to every individual cell. Substances diffuse in/out of blood
9. Coronary arteries	Blood vessels that supply heart with oxygen
10. (Aerobic) Respiration	Process by which all living things get energy from glucose and oxygen $\text{Glucose} + \text{Oxygen} \rightarrow \text{Carbon} + \text{Water} + \text{dioxide}$

## Key points to learn

11. The Heart	Organ made of muscle that pumps blood in two loops around body 
12. The Lungs	Organs for gas exchange. Take in O <sub>2</sub> release CO <sub>2</sub> 
13. Alveoli	Thin sac-like structures within the lungs. Covered in blood vessels to help gas exchange 
14. Plant organs	Leaf – carries out photosynthesis Stem – supports Roots – take in water and minerals
15. Leaf structure cross-section	<ul style="list-style-type: none"> <li>Epidermal tissue</li> <li>Xylem</li> <li>Phloem</li> <li>Guard cells</li> <li>Palisade mesophyll</li> <li>Spongy mesophyll</li> <li>Stomata</li> </ul> 
16. Transport within plant	<ul style="list-style-type: none"> <li>Phloem – moves sugars</li> <li>Xylem – moves water and ions</li> </ul>
17. Transpiration	Evaporation from leaf pulls water through plant xylem. Affected by temperature, humidity, wind, light

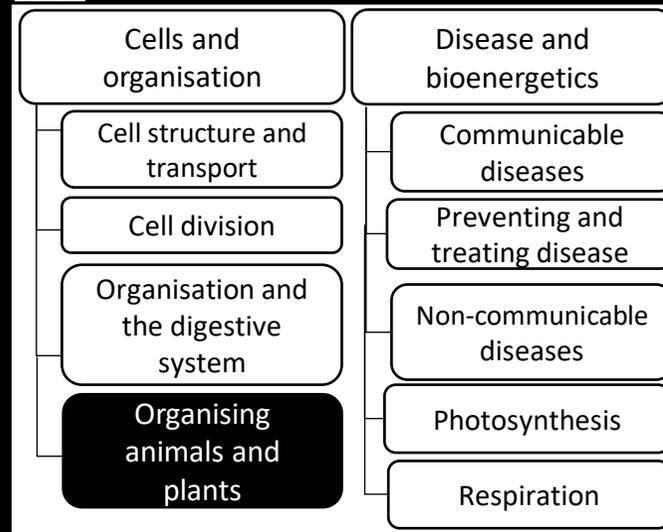
## Trilogy B4: Organising animals and plants

Part of: Organisation

### Knowledge Organiser



### Big picture (Biology Paper 1)



### Background

All living cells need glucose and oxygen for respiration. Getting these ingredients to the organism is only part of the struggle. How do you get them to the cells, keep them and get rid of waste products? This topic finds out



### Additional information

The heart was first labelled from behind. This means the left and right sides are reversed.