

Trauma 999 Curriculum Links for AQA GCSE Combined Science: Synergy (8465)

4.2.1.4 Blood cells

4.2.1.6 The human nervous system

4.3.1.1 Health and disease

4.7.4.7 Enzymes

4.2.1.4 Blood cells

Explain how red blood cells, white blood cells, platelets and plasma are adapted to their functions in the blood.

Blood is a tissue consisting of plasma, in which are suspended:
red blood cells
white blood cells
platelets.

Identify different types of blood cells in a photograph or diagram.

4.2.1.6 The human nervous system

Explain how the structure of the nervous system is adapted to its functions.

Where two neurones meet, there is a tiny gap called a synapse. Impulses cross this gap using chemicals.

4.3.1.1 Health and disease

Describe the relationship between health and disease.

Describe different types of diseases (including communicable and non-communicable diseases).

Health can be defined as 'a state of physical, mental and social well-being' and not merely the absence of disease. Factors including diet, stress and life situations can affect both physical and mental health.

Diseases stop part of the body from working properly. This causes symptoms, which are experienced by the person affected by the disease.

4.7.4.7 Enzymes

Recall that enzymes act as catalysts in biological systems.

Explain the mechanism of enzyme action including the active site, enzyme specificity and factors affecting the rate of enzymatic reaction.

Enzymes are important as biological catalysts which allow all the reactions in cells to occur.

Enzymes are large protein molecules. The shape of an enzyme is vital for its function. Each enzyme has an active site with a unique shape to bind a specific substrate molecule. High temperatures and extremes of pH denature the enzyme, changing the shape of the active site. The 'lock and key' model is a simplified model of enzyme action.