



Year 8

Cells, muscles and bones

17 Lessons

Aims: This unit of work is designed to introduce students to cells, organs and systems, the locomotor system, and how fitness and drugs affect the body system.

Links to KS4:

- Chapter 1 Biology – Cell biology
- Chapter 3 Moving and changing materials

Key Skills	Literacy Links:	Numeracy Links:
<ul style="list-style-type: none"> To develop an understanding of cell structure and systems in the body. To develop an understanding of the need for the locomotor, respiratory and circulatory system. To evaluate the links between drugs and exercise on the body. 	<p>Key Words: gas exchange nucleus antagonistic magnification Respiratory stimulant</p> <p>Be able to read and use these keywords within Scientific situations both verbally and written.</p>	<p>Be able to calculate magnification of an image with microscope.</p> <p>Calculate reaction times when discussing drugs in the system.</p>
Assessment	Cross-Curricular Links	
<ul style="list-style-type: none"> <i>Pink sheet teacher assessed activity – Animal and plant cells</i> <i>50 mark test which will focus on the following key areas: Animal and Plant cells with specialised cells, Light Microscopes, Organs and organ systems, Structure & function of skeleton, Diffusion and gas exchange and Antagonistic muscles</i> 	<ul style="list-style-type: none"> Physical education – Fitness History – history of cells and microscopes 	
	SMSC opportunities and British values	

Opportunities for further learning

Homework for year 8 is set on a weekly basis. Below are a range of different activities which could be used throughout the unit.

- Option 1:** Students could make model plant and animal cells.
- Option 2:** Students could research differentiated cells.
- Option 3:** Research and bring in notes on organ systems in the body and compare this to other organisms.
- Option 4:** Students research the history of the microscope.
- Option 5:** Research and present a leaflet on the respiratory system.
- Option 6:** Research the circulatory system.
- Option 7:** Drawing a graph.
- Option 8:** Research the Locomotor system.
- Option 9:** Finding a range of examples of drugs and how they affect the body.