

KS3: Year 8 B2.1 Tissues and Organs



BIG PICTURE LINK: Bodies are systems

Bodies are systems

Cells work together as tissues. Tissues work together as organs. Many organs work together as organ systems. Multicellular organisms (such as humans, animals and plants) are able to survive because many organ systems work simultaneously to carry out the 7 life processes. When one part of the system doesn't work, this can have a negative impact on the health of the organism.

	Year 8: Building	Yr 8: Developing	Yr 8 Securing	Yr 8 : Mastering
Progress Objectives	Students should be able to:		By the end of Yr 8 students should be able to:	By the end of Yr 8 students may also be able to:
Factual and Conceptual Understanding	<p>State the parts of the respiratory system</p> <p>Name the functions of the respiratory system</p> <p>Name the parts of the muscular and skeletal systems that coordinate breathing</p>	<p>Describe the levels of organisation from cells to organ systems</p> <p>The function of muscles is to allow movement</p> <p>Describe the passage of air through the respiratory system</p> <p>Describe how is oxygen transported into the bloodstream</p>	<p>Explain how the gas exchange system is adapted for efficient gas exchange</p> <p>Compare the composition of inhaled and exhaled air</p> <p>Define the term 'drug'</p> <p>State if recreational drugs legal or illegal?</p>	<p>The major muscle groups are cardiac, smooth and skeletal muscles</p> <p>Give examples of medicinal drugs used to treat pain or disease</p> <p>State the four types of recreational drugs</p>
Application of Knowledge and Skills	Describe the process of diffusion	<p>Explain why diffusion can't occur in solid matter</p> <p>Describe using examples what is meant by an 'antagonistic' pair of muscles</p>	<p>Describe the structure and function of the muscular and skeletal system</p> <p>Describe how to measure an applied force and measure the strength of a muscle</p> <p>Describe how volume and pressure changes cause air to move#</p>	<p>Describe how the skeleton and muscles interact to allow movement</p> <p>Describe the effect asthma has on the body</p> <p>Suggest how the impact of legal and illegal drugs on health services could be reduced.</p>
Maths, Practical and Enquiry Skills	A model can be used to represent breathing	State the independent, dependent and control variables are when investigating muscle strength	<p>Explain what happens to the volume of air in the chest cavity when the intercostal muscles contract</p> <p>Explain what happens to the volume of air in the chest cavity when the diaphragm relaxes</p>	Evaluate the use of models

<i>Language and Communication</i>	Define the term 'diffusion' Explain why people take recreational drugs	Give some examples of medicinal drugs and describe how they treat pain or a disease	Describe the current situation with organ donation in the UK	Consider the arguments for and against organ donation
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