

YEAR 9_2 & 10_2 SCIENCE

Body Systems

- Unit Outline -



Course Description:

In this unit students will learn and explore the structure and function of organ systems that make up the human body. They will also be learning how all multi-cellular organisms require and rely on co-ordinated and independent internal systems to survive and be able to respond to their environment.

Course Outcomes:

By the end of this unit you should be able to:

- Describe how the requirements for life (food, water, oxygen etc) are provided through the coordinated efforts of many different systems within the human body.
- Explain how body systems work together to maintain a functioning organism.
- Understand the effects of microorganisms and environmental hazards on the body.
- Describe interactions between organisms; predator-prey, parasites, competitors, pollinators and disease.

Course Organisation:

The organisation of the unit will be:

- The students are presented with both theoretical and practical work to develop their knowledge and skills.

Student's activities will include:

- Developing a knowledge base using notes, questions, book work/worksheets.
- Conduct practical activities to explore and visualise theoretical concepts.
- Practice using terminology and language in oral and written activities.

Course Timeline:

Wk	Activity	Assessment
1-4	<p>The Skeletal and Muscular Systems</p> <ul style="list-style-type: none">• Parts of the Skeleton• Types and shapes of bones• Functions of the skeleton• Functions of the muscular system• Major muscle groups and their functions	Test at the end of Wk4
5-7	<p>The Circulatory and Respiratory systems</p> <ul style="list-style-type: none">• Structure and function of the Circulatory and Respiratory systems• Blood flow and circulation• Gas exchange	Test and the end of Wk7

8-10	Ecosystems and Communities <ul style="list-style-type: none"> • Organisms and abiotic factors in an environment • Food webs and energy/matter flow • Relationships between organisms 	Quiz in Wk10
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Course Vocabulary:

- Axial skeleton
- Appendicular skeleton
- Compact bone
- Spongy bone
- Joints/articulations
- Tendon
- Ligament
- Muscle groups
- Muscle contraction
- Slow fibres
- Fast fibres
- Heart/Cardiac
- Lungs
- Trachea
- Bronchi
- Bronchioles
- Blood
- Blood pressure
- Artery/arterial
- Vein/venous
- Capillary
- Gas exchange
- Oxygenated/deoxygenated
- Carbon Dioxide
- Pulse
- Respiration
- Heartbeat/heart rate
- Ecosystem
- Community
- Predator
- Prey
- Parasite
- Pathogen
- Community
- Food web
- Producer
- Consumer
- Decomposer

- Assessment Outline -

Course Assessment:

Wk	Assessment type	Weighting	Marks achieved	Your Total
4	Test	40%		
8	Test or assignment	40%		
1 - 9	General class participation	20%		

Specific Equipment required for each lesson:

- File/book to write in
- Pens, ruler, calculator