


#This half term: Skills, Knowledge and Understanding to be developed:


Skills (students WILL BE ABLE to by the end of the Learning Programme): draw and label red and white blood cells and label the interior and exterior view of the heart; describe the passage of blood through the heart.


Knowledge (students WILL KNOW by the end of the Learning Programme): the structure of white and red blood cells; the functions of the four main parts of the blood: red cells, platelets, plasma and white cells; The structure of the heart; that the heart is made of muscle, which contracts to pump blood around the body; the role of the coronary vessels in supplying the heart muscle with blood; that blood flows to the organs through arteries and returns to the heart through veins; that a double circulatory system involves one system for the lungs (pulmonary) and one for the other organs of the body (systemic); the function and adaptations of capillaries in organs and the structure of arteries, veins and capillaries

Understanding (students WILL DEMONSTRATE their understanding): that aerobic respiration is a process that occurs in cells when oxygen is available and that anaerobic respiration is a process that occurs in the absence of oxygen; the role of the valves in preventing backflow of blood; the risk factors and the effects of cardiovascular disease.

Key Terms / Words: Respiration Aerobic Anaerobic	Oxygen debt Red blood cells Platelets Plasma	Atria Ventricles Valves Arteries	Veins Capillaries Cardiovascular disease Statins	Transpiration Photosynthesis Phloem Xylem
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<p>LP 3 – Week 1 & 2 Learning Outcomes:</p> <p>Students will be able to:</p> <ul style="list-style-type: none"> Recognise the four main parts of the blood Describe the functions of the four main parts of the blood <p>Students will apply and demonstrate new knowledge and skills in APP1 assessment</p> <p>Students will be able to:</p> <ul style="list-style-type: none"> Describe the structure of the heart Recognise the structures of the heart Describe the role of the coronary vessels <p>Students will be able to:</p> <ul style="list-style-type: none"> Describe the flow of blood through the heart Describe the function of the valves <p>Students will be able to:</p> <ul style="list-style-type: none"> Describe the circulatory system as a double circulatory system. Describe the flow of blood through the body. 	<p>Assessment </p> <div style="border: 2px solid blue; padding: 2px; display: inline-block;">APP1</div> <div style="border: 2px solid red; padding: 2px; display: inline-block;">Mark</div>	<p>Success criteria:</p> <p>Students will name, label and describe the components of blood on a diagram.</p> <p>APP1 (~10 marks)</p> <p>Students will identify and label the exterior and interior view of the heart on a diagram.</p> <p>Students will describe the journey of blood through the heart.</p> <p>Students will demonstrate their understanding of a double circulatory system by showing on a diagram where oxygenated and deoxygenated blood flow.</p>	<p>Homework LP 3 1/5</p> <p>Revise for APP1.</p>
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<p>LP 3 – Week 3 & 4 Learning Outcomes:</p> <p>Students will apply and demonstrate new knowledge and skills in a mock examination.</p> <p>Students will be able to:</p> <ul style="list-style-type: none"> Describe the danger and effects of cardiovascular disease Discuss the advantages and disadvantages of treatments for cardiovascular disease. <p>Students will be able to</p> <ul style="list-style-type: none"> Identify the structure of a leaf Describe the function of the stomata and guard cells Use a microscope to look at the cross section of a leaf. 	<p>Assessment </p> <div style="border: 2px solid blue; padding: 2px; display: inline-block;">SA</div> <div style="border: 2px solid red; padding: 2px; display: inline-block;">Grade:</div>	<p>Success criteria:</p> <p>Mock exam</p> <p>Students will use a variety of sources of information and summarise the advantages and disadvantages of various treatments and preventions of heart disease.</p> <p>Students will recognise and label the structure of a leaf.</p>	<p>Homework LP 3</p> <p>Revise for the mock examination</p>
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<p>LP 3 – Week 5 & 6 Learning Outcomes: Students will be able to</p> <ul style="list-style-type: none"> • Describe the importance of water to plants • Describe how the root hair cell is adapted to absorb water. • Describe the role osmosis plays in the absorption of water • Describe the role active transport plays in the absorption of salts. <p>Students will be able to:</p> <ul style="list-style-type: none"> • Describe the adaptation of xylem tissue • Describe the process of transpiration and the environmental factors that affect it. <p>Students will apply and demonstrate new knowledge and skills in APP2 assessment</p> <p>Students will be able to:</p> <ul style="list-style-type: none"> • Carry out an investigation into the factors affecting transpiration <p>Students will be able to:</p> <ul style="list-style-type: none"> • Describe the role of chlorophyll, light energy, carbon dioxide and water in photosynthesis. <p>Students will be able to</p> <ul style="list-style-type: none"> • test a leaf for the presence of starch. 	<p style="text-align: center;">  APP2 Mark </p>	<p>Success criteria:</p> <p>APP1 (~10 marks)</p> <p>Students will describe how water is absorbed into the foot and is transported up the stem</p> <p>Students will describe the environmental factors that affect transpiration.</p> <p>Students will explain the importance of the reactants, chlorophyll and light in photosynthesis.</p> <p>Students will have carried out a practical to test a leaf for starch, draw conclusions from their findings and suggest improvements for their investigation</p>	<p>Homework LP 3</p> <p>Learn key words for a key word test.</p>
<p>LP 3 – Week 7 Learning Outcomes: Students will be able to</p> <ul style="list-style-type: none"> • Describe the effect of limiting factors on photosynthesis <p>Students will be able to</p> <ul style="list-style-type: none"> • Investigate the effect of limiting factors on photosynthesis 		<p>Success criteria:</p>	<p>Homework LP 3</p>