



Programme of Study – Grade 9 (Year 10) Biology

	Theme	Overview of key learning to take place	How learning will be assessed
Term 2	Topic 6- Plant nutrition	<p>6.1: Photosynthesis</p> <ul style="list-style-type: none"> I can define photosynthesis and give the word equation I can investigate factors that affect the rate of photosynthesis I can discuss limiting factors and apply these to glasshouses <p>6.2 and 3: Leaf and mineral requirements</p> <ul style="list-style-type: none"> I can identify and name the parts of the leaf I can describe the leaf I can describe the importance of nitrate and magnesium ions I can explain how the internal structures of a leaf is adapted for photosynthesis 	<p>Examples of Formative Assessment to be used this term: Homework 2 x 60 minute tasks</p> <ol style="list-style-type: none"> Exam questions set as homework Homework assignments with recall tasks <p>Summative assessment: Topic 6 end of unit exam paper (Multiple choice and long answer questions)</p>
Term 2	Topic 7- Human nutrition	<p>7.1: Leaf and mineral requirements</p> <ul style="list-style-type: none"> I can state what is meant by a balanced diet I can explain how factors affect the dietary needs I can explain the causes and effects of deficiency diseases <p>7.2: Alimentary Canal</p> <ul style="list-style-type: none"> I can define ingestion and egestion I can describe the role of the main regions of the alimentary canal I can explain the effect of the cholera bacterium I can define absorption and assimilation I can describe the process of mechanical digestion and the role of <p>7.3 and 7.4: Mechanical and Chemical Digestion</p> <ul style="list-style-type: none"> I can describe the role and structures involved in mechanical digestion I can describe the role and structures involved in chemical digestion 	<p>Examples of Formative Assessment to be used this term: Homework 2 x 60 minutes tasks</p> <ol style="list-style-type: none"> Exam questions set as homework Homework assignments with recall tasks <p>Summative assessment: Topic 7 end of unit exam paper (Multiple choice and long answer questions)</p>

		<ul style="list-style-type: none"> I can explain the function of bile, hydrochloric acid and gastric juice in relation to enzyme activity and emulsifying fats <p>7.5: Absorption</p> <ul style="list-style-type: none"> I can identify the small intestine as a region for the absorption of digested food I can explain the significance of villi and microvilli I can suggest the importance of water and where it is absorbed 	
Term 2	<p>Topic 8- Transport in plants</p> <p>Topic 9- Transport in animals</p>	<p>8.1: Transpiration</p> <ul style="list-style-type: none"> I can define transpiration I can explain the mechanism by which water moves I can explain why wilting occurs I can investigate and analyse the effects of environmental factors on the rate of transpiration <p>8.2: Translocation</p> <ul style="list-style-type: none"> I can define translocation I can explain how parts of the plant act as a source or sink <p>9.1: Transport in animals</p> <ul style="list-style-type: none"> I can describe the circulatory system I can compare single and double circulatory systems <p>9.2: The heart</p> <ul style="list-style-type: none"> I can describe the structure of the heart and label diagrams I can explain the relative thickness of the heart walls I can describe what coronary heart disease is and evaluate the treatments I can discuss the role of diet and exercise in prevention of coronary heart disease <p>9.3 and 9.4: Blood and lymphatic system</p> <ul style="list-style-type: none"> I can describe the structure and function of vessels I can outline the structure and role of the lymphatic system I can list the component of blood and identify these in prepared slides I can describe the process of blood clotting 	<p>Examples of Formative Assessment to be used this term:</p> <p>Homework 2 x 60 minutes tasks</p> <ol style="list-style-type: none"> Exam questions set as homework Homework assignments with recall tasks <p>Summative assessment:</p> <p>Topic 8 and 9 end of unit exam paper (Multiple choice and long answer questions)</p>