

Science	Cellular Processes		Year 9	Term 5
1: Microscopes		3: Anaerobic Respiration in Animals		5: Factors Affecting Photosynthesis
<b>specimen</b> <b>iodine</b> <b>methylene blue</b> <b>cover slip</b> <b>microscope slide</b>	a sample used for analysis a stain used to visualise plant cells a stain used to visualise animal cells a thin square piece of glass/plastic used to cover the specimen for protection a platform to view specimens	<b>anaerobic</b> <b>cytoplasm</b> <b>lactic acid</b> <b>waste product</b>  <u>Anaerobic Respiration (in animals)</u> Glucose → lactic acid	<b>limiting factor</b> <b>carbon dioxide concentration</b>  <b>temperature</b>  <b>light intensity</b>	a factor or condition that prevents the rate of reaction from increasing increasing carbon dioxide concentration increases the rate of photosynthesis until the maximum rate is reached increasing temperature increases the rate of photosynthesis until the enzymes denature increasing light intensity increases the rate of photosynthesis until the maximum rate is reached
2: Aerobic Respiration		4: Photosynthesis		6: Uses of Glucose in a plant
<b>respiration</b>  <b>aerobic</b>  <b>glucose</b>  <b>mitochondria</b>	the chemical process that releases energy for life processes a process that involves oxygen a monomer of the carbohydrate starch a subcellular structure where aerobic respiration takes place  <u>Aerobic Respiration Word Equation</u> glucose + oxygen → carbon dioxide + water <u>Aerobic Respiration Symbol Equation</u> $C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$	<b>root</b> <b>leaf</b> <b>photosynthesis</b> <b>stomata</b>  <b>chloroplasts</b>  <u>Photosynthesis Word Equation</u> carbon dioxide + water → glucose + oxygen <u>Photosynthesis Symbol Equation</u> $6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$	<b>sucrose</b> <b>starch</b>  <b>cellulose</b>  <b>proteins</b>  <b>fats and oils</b>	stored in fruit food store – polymer of glucose used in the formation of cell walls for growth and repair of cells food store for growth and cell wall production