




<b><u>Science:</u></b> <b><u>Biology 2.4 - Plants</u></b>	Mathematics involved	Prior Knowledge:
	<div>   </div> <div> <b>Percentage Change Formula</b> = <math>\frac{\text{Old Number} - \text{New Number}}{\text{Old Number}} \times 100</math> </div> <div>  </div>	<ul style="list-style-type: none"> <li>• Osmosis</li> <li>• Diffusion</li> <li>• Active transport</li> <li>• Plant Cell structure</li> <li>• Parts of a plant</li> </ul>

<b><u>Photosynthesis</u></b>  Water + Carbon dioxide --> Oxygen + Glucose  Exothermic reaction, heat given out to the surroundings	<b><u>Starch Practical</u></b>  Add iodine to leaves that have been boiled in ethanol. If the colour of the leaves turns blue/black, there is starch present.  Starch is stored glucose	<b><u>Limiting Factors</u></b>  Things that impact the rate of photosynthesis Light intensity Carbon dioxide concentration Temperature	<b><u>Photosynthesis Core Practical</u></b>  Investigating the relationship between light intensity and rate of photosynthesis  The greater the light intensity the greater the rate of photosynthesis
<b><u>Adaptations of a leaf</u></b>  How is a leaf adapted for gas exchange Stomata Guard cells Spongy mesophyll	<b><u>Transpiration</u></b>  The rate of flow of water from the bottom to the top of the plant Water travelling from the root to the shoots through the xylem	<b><u>Translocation</u></b>  The movement of glucose and other minerals throughout the plant Occurring in the phloem	<b><u>Factors that affect Transpiration</u></b>  Affected by: Light intensity Carbon dioxide concentration Wind Humidity
<b><u>Xylem</u></b>  Transports water Root to shoot Dead, Hollow, lignified cells	<b><u>Phloem</u></b>  Transports minerals Two-way flow Has end walls, sieve elements and companion cells		

Core Practical	Useful links
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