



<p><b>This half term: Skills, Knowledge and Understanding to be developed:</b></p> <p><b>Skills (students <u>WILL BE ABLE</u> to by the end of the Learning Programme):</b> to use theories, models and ideas to develop scientific explanations; use knowledge and understanding to pose scientific questions,</p> <p><b>Knowledge (students <u>WILL KNOW</u> by the end of the Learning Programme):</b> the structure and function of xylem and phloem and how water, salts, sugars and amino acids are transported around the plant.</p> <p><b>Understanding (students <u>WILL DEMONSTRATE THEIR UNDERSTANDING</u> by the end of the Learning Programme):</b> the adaptations of a variety of organisms for transport. As organisms increase in size and complexity, there is an increased need for specialised transport mechanisms.</p>		<p><b>Key Terms / Words:</b></p> <p>translocation transpiration cohesion tension theory phloem xylem hydrophyte xerophyte mesophyte sink source apoplast symplast</p>	
<p><b>LP 5 – Week 1 &amp; 2 Learning Outcomes:</b></p> <p><b>Students will complete CDG - Biodiversity and the simpsons index</b></p> <p>Students will be able to</p> <ul style="list-style-type: none"> <li>describe the structure of the dicotyledon root, including examination of microscope slides of T.S. dicotyledon root</li> <li>describe the detailed structure of xylem as seen by the light and electron microscope.</li> <li>describe the detailed structure of phloem as seen by the light and electron microscope</li> </ul> <p>Students will be able to</p> <ul style="list-style-type: none"> <li>describe the absorption of water by the root including the movement of water through the root: apoplast, symplast and vacuolar pathways (I)</li> <li>describe and explain the structure of the endodermis</li> </ul>	<div style="border: 2px solid red; padding: 5px; width: 40px; margin: 0 auto;">Mark</div>	<p><b>Success criteria:</b></p> <p>Answer example examination style questions comparing xylem and phloem</p> <p>Answer example examination style questions on absorption of water</p>	<p><b>Homework LP 5</b></p> <p><b>Prepare for next lesson Homework 1</b></p> <p><b>Prepare for CDG</b></p>
<p><b>LP 5 – Week 3 &amp; 4 Learning Outcomes:</b></p> <p>Students will be able to</p> <ul style="list-style-type: none"> <li>describe the movement of water from root to leaf including the transpiration stream and cohesion-tension theory</li> <li>describe and explain the effect of environmental factors affecting transpiration</li> </ul> <p>Students will be able to</p> <ul style="list-style-type: none"> <li>explain the experimental evidence that solutes e.g. sucrose, are carried in the phloem; use of aphids and autoradiographs</li> </ul>		<p><b>Success criteria:</b></p> <p>draw conclusions from a simple potometer experiment</p> <p>Answer examination style questions relating to translocation</p>	<p><b>Homework LP 5</b></p> <p><b>Prepare for next lesson</b></p> <p>Prepare for CDG</p>
<p><b>LP 5 – Week 3 &amp; 4 Learning Outcomes:</b></p> <p><b>Students will complete CDG - transport in plants</b></p>	<div style="border: 2px solid red; padding: 5px; width: 40px; margin: 0 auto;">Mark</div>	<p><b>Success criteria:</b></p> <p>Answer examination style questions relating to transport in plants</p>	<p><b>Homework LP 5</b></p>