





<p><b>Topic:</b> Plants</p>	<p><b>Year 3</b> Age 7-8</p>	<p><b>Title:</b> Function of a plant stem</p>
<p><b>Working Scientifically</b> <b>Review:</b> Use straightforward scientific evidence to answer questions or to support their findings</p>		<p><b>Concept Context</b> Investigate the way in which water is transported within plants</p>
<p><b>Assessment Focus</b></p> <ul style="list-style-type: none"> <li>• Can children make careful observations?</li> <li>• Can children use observations to suggest how water is transported?</li> </ul>		
<p><b>Activity</b> <i>Today we are botanists.</i> Show children a complete head of celery and/or white carnations and ask them to name the parts (noting the stem). Explain to the children that they are going to put the celery stem/carnation upright in a vase/container of water coloured with red/blue food colouring. (<i>Test colouring in advance if possible because not all brands work</i>). What could happen? Make careful observation before placing in water e.g. draw and label. Leave overnight/all day. Carefully observe and reflect on what has happened and how well (or not) the dye has been transported. Use their scientific evidence to explain how water is transported in plants e.g. labelled drawings of whole and cut celery.</p> <p style="text-align: right;"></p> <p><b>Adapting the activity</b> <b>Support:</b> Draw a group explanation <b>Extension:</b> Predict what will happen when the stem is split in two and each end placed in a different coloured food dye. <b>Other idea:</b> Try different colours and plants.</p> <p><b>Questions to support discussion</b></p> <ul style="list-style-type: none"> <li>• What can you see inside the celery? What has happened?</li> <li>• What is happening to the coloured water?</li> <li>• What do you think will happen if the stem is split in 2 and placed in different coloured waters?</li> <li>• Do you think the leaves will change colour? If so, why?</li> <li>• Can you explain how water is transported in a plant?</li> <li>• What scientific evidence do you have to support your explanation?</li> </ul> 		
<p><b>Assessment Indicators</b> <b>Not yet met:</b> Can draw/say what has happened simply, e.g. <i>the colour went up</i>. <b>Meeting:</b> Observes what has happened and can make suggestions, e.g. <i>I know there are tubes in the stem, the water goes up the stem and it might go up to the leaves if I leave it for longer</i>. <b>Possible ways of going further:</b> Children can predict what they would expect to happen if the stem was split and each section placed in two different dyes. They raise further questions about how water transportation can be shown in other types of plants e.g. <i>If we split the celery between two food dyes, I think half the stem will be blue and half will be red because the water from each container will be transported up the stem. I wonder if we could make a white flower change colour?</i></p>		

 Teacher box 7 - time to reflect. See TAPS pyramid for more examples.