

<p><b>Topic:</b> Properties and changing materials</p>	<p>Year 5 Age 9-10</p>	<p>Title: Sugar cube stacks</p>
<p><b>Working Scientifically</b> <b>Do:</b> Gather and record data of increasing complexity using tables</p>		<p><b>Conceptual Knowledge Context</b> Know that some materials will dissolve in a liquid to form a solution.</p>
<p><b>Assessment Focus</b></p> <ul style="list-style-type: none"> <li>• Can children record data clearly and accurately?</li> <li>• Can children record repeat readings?</li> </ul>		
<p><b>Activity</b> Ask children to explore what happens when they place a stack of three sugar cubes in a small pool of coloured water (on a plate). Pause and discuss what they notice and what they could investigate e.g. does the number of cubes/amount of water make a difference? What if you place a material between the cubes (paper/foil/cling film)? How will you know if it makes a difference – what should we measure? (e.g. time for water to reach x, time to fall). Ask groups to investigate one of their ideas and record their findings in their own table.</p> <p><b>Adapting the activity</b> <b>Support:</b> Question children to ensure they are clear about what they are changing, what they are measuring, and what they are keeping the same. <b>Extension:</b> Repeat readings or try a different measure to check results. <b>Other ideas:</b> investigate different types of sugar, different temperatures of water, different methods of adding water...</p> <p><b>Key Questions</b></p> <ul style="list-style-type: none"> <li>• What will you change?</li> <li>• What will you measure?</li> <li>• What will you keep the same?</li> <li>• How confident are you in your results?</li> <li>• How could you check your results?</li> <li>• What do you think would happen if you did it again?</li> <li>• What do you think would happen if you did it differently?</li> </ul>		
<p><b>Assessment Indicators</b></p> <p><b>Not yet met:</b> Children note the times for each sugar cube test, but it may not be clear what they are measuring e.g. time to absorb or time to fall/dissolve.</p> <p><b>Meeting:</b> Results are recorded clearly in a table. Children may recognise the need to repeat readings but may not have recorded these.</p> <p><b>Exceeding:</b> The results table is clear and follows the science format of ‘change’ in the left-column and ‘measure’ in the right column(s). Repeat readings can/have been recorded in the table.</p>		

