





Science and DT topic: Materials/biscuits	Year 4 Age 8-9	Title: Dunking biscuits
Enquiry Focus Evaluate method and suggest how it could have been improved		Concept context Properties of materials relating to their uses
Assessment Focus <ul style="list-style-type: none"> • Can the children evaluate their investigation? • Can children suggest improvements to their method of testing? 		
<p>Activity <i>Today we will be food technologists.</i> Discuss context/problem e.g. dunk breaktime biscuit in tea and leave in too long. Discuss possible questions to investigate, e.g. <i>Which is the best biscuit type/brand/shape? Which is the best cup/temperature for dunking?</i> Share ideas for how to test the biscuits e.g. <i>time how long to fall, count dunks before falls etc.</i> Different groups could investigate different things to pool evidence for recommendations. Discuss practicalities: kit/time available etc. Work in groups to carry out dunking investigations. Pause to share ideas and discuss problems.</p> <p style="text-align: right;"></p> <p>Discuss findings across the class and consider fairness and accuracy of methods. Ask children to talk about / draw a diagram / write about their findings, with a focus on suggesting improvements to their method.</p> <p>Adapting the activity Support: Provide examples, limit the kit available, provide support in recording data. Extension: Offer more independence, try with different remit eg further, different material etc. Other ideas: Use their results to design and make the 'ultimate dunking biscuit'.</p> <p>Questions to support discussion</p> <ul style="list-style-type: none"> • What are you measuring? How will you know which biscuit is better? • What did you find out? • Which biscuit appeared to work best? How did you know? • What properties of the biscuit do you think are important? • Can you use any science words to explain what happened? • What went well in your investigation? • What could you have done differently? • How much do you trust your results? 		
<p>Assessment Indicators</p> <p>Not yet met: Describes the best or worst biscuit, but does not make appropriate suggestions to make their method more fair or accurate e.g. <i>let's try frozen water next, to make it fair I'll use a digestive</i> (change variable).</p> <p>Meeting: Uses results to draw simple conclusions. Can also describe improvements to their method e.g. <i>needed to be more careful to not bash them on the side of the cup, would be better to use fresh water each time because there were bits floating in it, it's not really fair to have the double biscuits so could we break the bourbons in half next time.</i></p> <p>Possible ways of going further: Considers degree of trust in results, shows awareness that it may not be possible to control some variables e.g. <i>it wasn't really fair because the temperature didn't stay the same but it would be really hard to keep it the same.</i></p>		

