

KS4 Let Them Eat Cake

Learning Objectives	Teaching activities	Learning outcomes	Points to note
<p>Children should learn to:</p> <p>Designing skills</p> <ul style="list-style-type: none"> • use a variety of information sources including recipe books, magazines and Internet to help their designing • generate ideas based on specific cake making methods • clarify ideas and develop criteria for their designs • describe and represent ideas through discussion, drawing, testing, trialling and modelling • plan and manage production individually and in groups <p>Making skills</p> <ul style="list-style-type: none"> • select materials and manufacturing methods appropriately • use and adapt recipes • use a range of skills and techniques to measure, mark out, prepare, combine and cut materials • test and evaluate ideas <p>Knowledge and understanding</p> <ul style="list-style-type: none"> • use knowledge about food processing and manufacture • combine ingredients creatively • use knowledge gained from research, demonstrations and product evaluation • manage production runs & the realisation of ideas • comment critically on products and their quality, including cost and value for money 	<p>Explore what makes a good cake by demonstrating different cake making methods to the class, egs. rubbed in, creamed, whisked, melted and producing a range of large and individual cakes for class tasting. Taste test one or two shop bought versions if possible and compare for price and quality.</p> <p>Get students to complete a table to show the role of key ingredients, egs. flour, fat, liquid, eggs, raising agent in cakes.</p> <p>In groups get students to investigate different methods of cake making by producing small batches and compare them for ease of method, time taken, appearance, aroma, texture and taste. An Intel electronic microscope, scanner or photocopier may be used to compare texture of cakes produced. They should also trial ways of topping and filling cakes. Each group should produce two or three examples of each and evaluate them for preference and use.</p> <p>As a class exercise demonstrate (if possible) how CAD and CAM may be used in cake decorating both in industry and in the classroom (eg. www.eatmesoftware.com) and give students practice in designing their own cake decorations using the computer. Another relevant resource is the BNF 'IF2' CD-ROM which supports modelling of cake recipes.</p> <p>Discuss the role of cakes and other sweet products (egs. chocolate, biscuits, pastries) in the diet with reference to the balance of Good Health Plate. Get students to investigate how traditional cake recipes may be adapted to reduce the quantity of fat or sugar used.</p> <p>Look at the 96% Fat Free Carrot Cake case study on www.foodforum.org.uk as an example of a reduced fat cake and the use of modified barley starch (smart food material). Ask students to investigate why there are so many fat and sugar reduced products on the market and to decide how do they measure up against traditional recipes by carrying out a consumer test.</p> <p>Adapt one of the trialled methods of cake making to make a batch of cake bar versions. Investigate how quality and consistency may be achieved when mass producing cakes in industry and use some of these methods. Build in quality and safety checks (HACCP) when producing a production plan diagram, eg. flow chart.</p> <p>Each student produces a star profile showing the attributes or characteristics against which the cake will be evaluated.</p>	<p>Formative assessment</p> <p>Students should be assessed during the unit of work against the learning objectives in Column 1. A simple scale may be used to keep track of students' progress:</p> <p>3 excellent understanding, making outstanding progress in this aspect 2 reasonable understanding, making good progress in this aspect 1 very little understanding in this aspect, experiencing some difficulties, some progress</p> <p>Summative assessment</p> <p>Overall, students should make progress in relation to the learning objectives planned for the unit. The formative assessment records (see above) should indicate which of the following three levels of expectation students will achieve. This can be checked at the end of the unit and feedback given to students.</p> <p>End of unit expectations</p> <p>Most students will:</p> <ul style="list-style-type: none"> • have learnt about the topic and applied the information practically • have gathered information from which to develop ideas • have taken their ideas through to a satisfactory conclusion <p>Some will not have made as much progress and will:</p> <ul style="list-style-type: none"> • have developed some knowledge of the topic • with direction, have gathered information from which to develop ideas • have used some designing and making skills to produce a reasonable outcome <p>Some will have progressed further and will:</p> <ul style="list-style-type: none"> • have developed an in-depth understanding of the topic • have gathered appropriate information from which to develop ideas • applied this depth of knowledge in their product development work • have developed products successfully using a range of skills 	<p>Key skills</p> <p>ICT</p> <ul style="list-style-type: none"> • researching • data handling and analysis <p>Problem solving</p> <ul style="list-style-type: none"> • trialling and prototyping • recipe development • working out how to produce products <p>Managing own learning</p> <ul style="list-style-type: none"> • time and resource management • self assessment and review <p>Collaborative working</p> <ul style="list-style-type: none"> • developing ideas • evaluating as a group and class <p>Communication</p> <ul style="list-style-type: none"> • using the computer • discussion • presenting ideas to others <p>Citizenship</p> <ul style="list-style-type: none"> • being an informed consumer • understanding different preferences • considering consumer needs • making decisions and justifying actions <p>Resources</p> <p>www.nutrition.org.uk www.deliaonline.com www.garyrhodes.com www.bbc.co.uk www.sainsbury.co.uk/tasteofsuccess www.eatmesoftware.com www.marksandspencer.co.uk RCA 'Routes' books, Hodder & Stoughton DATA 'Food Technology in Practice' BNF Food Technology video and CD-ROM Ridgwell Press, 'New Foods' CD-Rom 'Design & Make it! Food technology for KS4', Stanley Thornes</p>