

KS3 In the test kitchen

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 to develop design ideas • generate ideas based on users and needs • clarify ideas and develop criteria for their designs • describe and represent ideas through discussion, drawing, testing, trialling and modelling • plan and manage the development of ideas • work collaboratively to develop ideas <p>Making skills</p> <ul style="list-style-type: none"> • select materials and manufacturing methods appropriately • take account of working characteristics of materials • use a range of techniques to measure, mark out, combine, cut, form and shape materials • test and evaluate ideas as they develop and against criteria • work collaboratively to manufacture ideas <p>Knowledge and understanding</p> <ul style="list-style-type: none"> • use knowledge about properties • combine ingredients to create the required sensory characteristics / product attributes, egs. colour, texture, shape • use knowledge gained from product evaluation • consider the quality of design ideas, eg. fitness for purpose • take account of nutrition and the functions of foods when developing ideas for products • plan and manage production runs & the realisation of ideas • recognise hazards and take action to manage and control them, eg. by applying HACCP principles • comment critically on products and their applications 	<p>Watch one of the videos on product design and make notes on how a team works together to design and then manufacture products. You are going to work in a team during this unit of work.</p> <p>In a team of 4, make samples of pasties, samosas and filo parcels in order to trial different ways of forming a product with an edible casing.</p> <p>What other recipes and ideas for edible casing products can you find? Jot down any interesting ideas.</p> <p>Explain, with diagrams, the role of flour, air and shortening when pastry is made.</p> <p>In a design team of 4, experiment with different fillings, and with ingredients may be used for binding, sealing and finishing edible pastry products?</p> <p>Working in your team of 4, decide on a target market (who it is for / when it would be eaten / what type of product) and produce a specification for an edible casing product.</p> <p>Use the best ideas from your earlier trials and combine these into one idea that the group will develop and trial as a marketable product.</p> <p>Set up a system to produce a trial batch of 50 of the product. Decide who in the group will take which part in the production process.</p> <p>Carry out nutritional and cost analyses for your product. How does yours compare to similar products on the market.</p> <p>Consider how your product would be packaged and what information would be needed on the label. Produce a mock up of the packaging to show how your product would be marketed and presented in the shops.</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</p> <p>2 reasonable understanding, making good progress in this aspect</p> <p>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 applied some of this knowledge to the development of product ideas • have taken their ideas through to a satisfactory conclusion • have worked well in a group <p>Some will not have made as much progress and will:</p> <ul style="list-style-type: none"> • have developed some knowledge about the topic • with prompting have applied that knowledge in developing their own ideas • have used some designing and making skills to produce a reasonable outcome • have taken a role in a group <p>Some will have progressed further and will:</p> <ul style="list-style-type: none"> • have developed an in-depth understanding of the topic • applied this in their product development • have developed their product ideas successfully using a range of designing and making skills • have worked cooperatively in a group 	<p>Key skills</p> <p>ICT</p> <ul style="list-style-type: none"> • role of ICT in packaging and marketing • modelling • researching • data handling and analysis • graphics and presentation <p>Problem solving</p> <ul style="list-style-type: none"> • trialling and prototyping • product development • considering how product design works in industry <p>Managing own learning</p> <ul style="list-style-type: none"> • systems management • self assessment and review <p>Collaborative working</p> <ul style="list-style-type: none"> • sharing ideas • working as a production team <p>Communication</p> <ul style="list-style-type: none"> • using the computer • discussion • presentation <p>Citizenship</p> <ul style="list-style-type: none"> • being an informed consumer • understanding different needs and preferences • understanding markets and marketing techniques • making decisions and justifying actions <p>Resources</p> <p>www.foodforum.org.uk</p> <p>www.sainsbury.co.uk/tasteofsuccess</p> <p>DATA 'Food Technology in Practice'</p> <p>RCA 'Challenges' books, Hodder & Stoughton</p> <p>Anne Barnett 'Understanding Ingredients'</p> <p>BNF Food Technology pack and 'If²' CD-ROM</p> <p>Linnet 'Food for a PC'</p> <p>Economats 'HACCP' CD-ROM</p> <p>'New Foods' CD-ROM</p> <p>Classroom videos 'Food Product Design'</p> <p>BNF 'Food Technology' video</p>