



Manufacturing

Unit 1 - Designing Products for Manufacturing

Unit 2 - Manufacturing Products

Student Assessment Activity - Teachers Notes

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Professional Development and Training



Assessment Activities

Introduction

These assessment activities have been written by a team of subject specific people including teachers and moderators. They are examples of the type of activities you might want to consider using with your students.

They give a basic format that you might want to follow for your assessment activities. If you use this format remember **it is your responsibility to check that the work the students produce meets the requirements of the specification.**

Before you use these **assessment** materials remember that there are various preliminary stages to pass through -

Teaching - remember the 'What you need to learn' section of the specification - make sure you have read the specification and have fully addressed the detail of the unit. Teach the knowledge that is required.

Learning - students need to engage in activities that reinforce learning. This may be through group work, discussion, role plays, problem solving activities, worksheets, interviews, investigations or visits to real organisations.

Assessment - once the teaching and learning aspects are complete and you are confident that the student has gained the appropriate knowledge you will want to give them an assessment activity. The work that is then produced becomes the evidence for their portfolios.

Teaching and Learning

Skills the students need to learn

- Ensure the pupils know the vocabulary of the specification - you may want to put key words on display somewhere, or use the development of understanding of key words as an activity; encourage them to use correct vocabulary from the start.
- Students will need help to differentiate between a description and an evaluation - the relevant words in the mark bands.
- Students will need practice at applying the concepts and vocabulary in real contexts - have activities that replicate the world of work.
- Ensure the skills developed relate to the standard required by industry. In Engineering for example students must be able to produce engineering drawings that comply with sector specific standards and conventions

Links/External needs/Resources

- Industry links could be used to provide useful resources and give the students opportunities to experience different types of organisations/products relevant to the course - visits, case studies, speakers, sample documentation
- Check out the resources and other advice in the Teachers Guide

Delivery

- These are vocational courses - avoid making it too theoretical.
- When planning the course build in the vocational relevance
- When delivering the course make the most of links with industry/commerce
- Make the classroom an 'adult learning environment'

Assessment

- Check assessment activities to make sure they allow the student to
 - demonstrate learning and work independently where possible so as to access the higher mark bands
 - produce the right evidence across the mark bands
- Make sure the students have access to the most appropriate resource in order to get the unit evidence right, here are a few examples of the things you need to remember but it is important that you check the unit specifications carefully:
 - Applied Art & Design - check the specifications carefully if you are integrating the delivery
 - Applied Business - make sure they have chosen the right organisation
 - Applied ICT - they have chosen the right business organisation to investigate
 - Applied Science - make sure they cover all the topics in Unit 1 'What you need to learn' and that it is relevant to the content
 - Engineering - they have a client brief and a product specification to include a set of drawings
 - Health & Social Care - they have chosen two different clients with an appropriate range of needs who use the services of their chosen organisation
 - Leisure & Tourism - they need practice in customer service situations
 - Manufacturing - they have the right client Brief and Production Plan including a product specification
- **Check the specification carefully to ensure that you have covered the key points like the things noted above**
- Ensure students work is internally moderated
- Attend Getting the Standards Right events to help with marking

Assessment Activities in this pack

These follow closely the structure of the assessment evidence grid and give suggested activities the students might do in each of the mark bands.

The Front Page

This clearly identifies the 'Title of the Assessment Activity', Subject, Unit Number and Title. The subject and unit number are then given in the footer in case the pages get misplaced.

Get Ready This states the banner - the first line in the assessment evidence grid - which states the nature of the work the student has to produce.

Get Set This gives the context in which the work is to be done. This reinforces the nature of the GCSEs and gives a work-related context.

Go The assessment criteria are listed here - these form the basis of the assessment activities that follow.

The pages that follow take one of the criteria at a time and suggest activities in the given context for each mark band. Clearly just stating the work the students might do does not guarantee that they will do it, nor that what they produce meets the evidence requirements. It is important therefore to check the work and give feedback to the students.

Formative and Summative Feedback

Teachers giving feedback to the students as they work through the activities can motivate them to achieve their full potential. Once the work has been assessed the **mark record sheet** should be completed and put with the work. The work can then go in the **portfolio**.

Mark Record Sheets

These are given in the Teachers Guide.

Portfolio Management

- Only the evidence that meets the assessment criteria should be put in the portfolio - nothing else, no teaching notes, handouts or unnecessary materials. Where questionnaires have been used then one example with a summary should be included - not all the completed questionnaires
- Look at the sheet headed Virtual Portfolio included with these notes - it outlines a portfolio structure that you might want to follow
- Portfolios must have a front sheet clearly indicating the student name and qualification
- Each unit should have a separate section in the portfolio - with the possible exception of Applied Science and Applied Art & Design
- Annotate the work - refer again to the instructions, show the moderator where the evidence can be found and why marks have been awarded. Moderators should be able to locate the evidence quickly and easily
- Use the mark record sheets given
- Students should put page numbers on the work
- Witness statements should be detailed, what exactly has been witnessed, by whom and when
- Make sure any photographs are real evidence of an individual student's work - a photograph of a class/group without annotation is not evidence. The photograph must clearly show the specified student with the specified evidence and must be annotated/signed by the teacher
- Do not put work in plastic wallets it is preferable if each unit of work is hole punched and treasury tagged on the left hand side

Other types of evidence

Witness Statements

A witness statement should be a statement about an individual student outlining what the witness wishes to state about the student in the context of the assessment evidence criteria.

Witness statements should not be a list photocopied for each member of the class - such statements are meaningless. If lists are used anything ticked should be supported by a statement outlining what the individual student should be credited with having done or achieved.

Photographs

Photographs are only acceptable as evidence if it is clearly annotated - the performance of the individual student clearly seen. A group photograph around an object/display or such like without any annotation is not evidence. Evidence must be of what the individual student did as part of the group outcome.

Teachers' Guide and Portfolio Marking Guidance

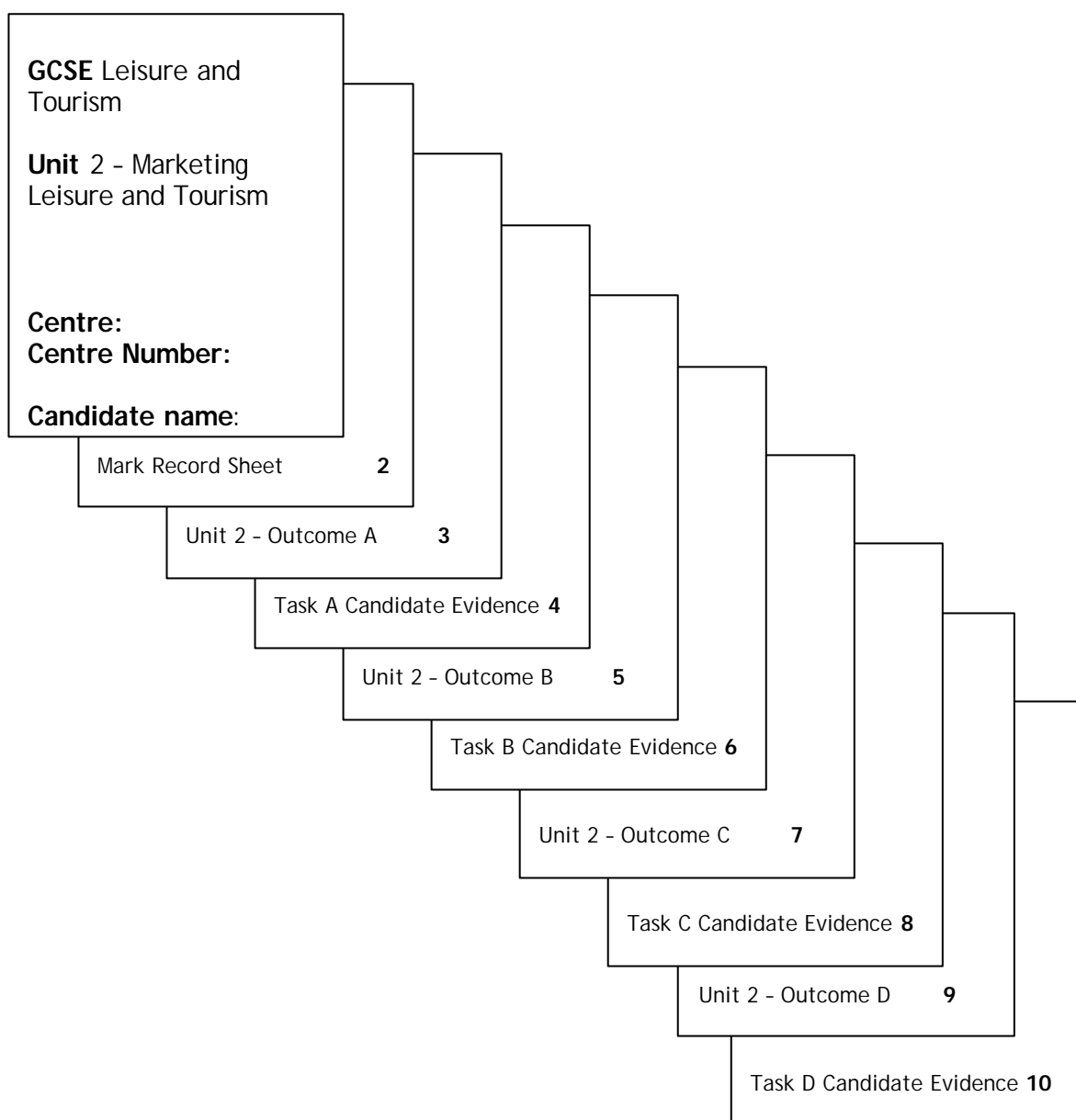
Teachers should refer to the Edexcel Teachers Guide and Portfolio Marking Guidance for further use of Witness Statements and Observation Records.

Virtual Portfolio

Example from Leisure and Tourism

Unit 2 - Marketing Leisure and Tourism

The following represents a virtual portfolio. It incorporates standard sheets to be included in the portfolio. Some of these sheets will need to have candidate information while others need teachers to provide feedback on candidate performance.





MANUFACTURING

UNIT 1 - Designing Products for Manufacture




Student Assessment Activities

advancing learning, changing lives

Professional Development and Training



TITLE OF ASSESSMENT ACTIVITY	Wrap up a RapSnack
SUBJECT	Manufacturing
UNIT NUMBER AND TITLE	Unit 1 - Designing Products for Manufacture

	GET READY:	<p>You need to produce a product design specification and design solution for a manufactured product from a given brief.</p>
	GET SET:	<p>RapSnack is a new product from a leading food manufacturer Edex Biscuits. RapSnack is a combination of chocolate biscuit, fruit and nut pieces in both milk and dark chocolate varieties. It will be available in a single pack or in a multipack of six biscuits.</p> <p>Edex Biscuits wants a resealable pack that is tamper proof and easy to open and close. The target market for this biscuit will be school age children.</p> <p>The single and multipacks should have a vivid appearance and distinguish between milk and dark chocolate. The packaging design should be printed in up to seven colours and include the brand image of the parent company.</p> <p>The RapSnack packaging should be made from materials that provide an extended shelf life. A single RapSnack biscuit will measure 100 x 30 x 15mm and will be sold at similar price to other leading biscuit brands. The initial demand for the product will be 120 000 of each variety split evenly between the single and multipacks. Legal labelling requirements relating to weight, ingredients and nutritional information must be followed. All packaging materials must be non-toxic. Biscuit production begins within twelve weeks.</p> <p>Your brief is to design the RapSnack packaging for either a single or a multipack of biscuits.</p>
	GO:	<p>You need to produce a product design specification and design solution for a manufactured product from a given brief including:</p> <ol style="list-style-type: none"> an analysis of the client design brief and information about key features details of the product design and material constraints details of production requirements and quality standards a range of design ideas and evidence of testing them evidence of how you tested and justified your final solution evidence of how you selected and used presentation techniques evidence of how you responded to external feedback and modified your design proposal.



TITLE OF ASSESSMENT ACTIVITY - Wrap up a RapSnack

What must be included in your portfolio:

You need to produce a product design specification and design solution for a manufactured product from a given brief including:

- a) an analysis of the client design brief and information about key features.

What you must do to gain 1-2 marks/mark band 1

- an analysis of the brief to identify basic client needs and most of the key features of the product.

Suggested task

- i) Make a list of the most obvious biscuit manufacturer's needs, eg packaging must be simple but have a vivid appearance.
- ii) Make a list of the most obvious key features of the packaging, eg the packaging must be resealable.

What you must do to gain 3-4 marks/mark band 2

- an analysis of the brief to describe the main client needs and the main key features of the product.

Suggested task

- i) Produce a description of the main biscuit manufacturer's needs, eg packaging must be simple but stylish to appeal to target customers.
- ii) Produce a description of the main features of the packaging with some qualification, eg the packaging must be re-sealable that would be tamper proof, yet simple enough for the target market to open and close.

What you must do to gain 5-6 marks/mark band 3

- an analysis of the brief to explain the main client needs and the main key features of the product.

Suggested task

- i) Give an explanation of the biscuit manufacturer's needs, eg the packaging should be simple but stylish to appeal to the target customer in order to maximise sales within the intended market area.
- ii) Explain the main features of the packaging requirements, eg the packaging must be re-sealable and tamper proof, yet simple enough for the target market to open and close in order to comply with current packaging health and safety standards.

Formative Feedback

Signature:

Date:

Summative Feedback

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TITLE OF ASSESSMENT ACTIVITY - Wrap up a RapSnack

What must be included in your portfolio:

You need to produce a product design specification and design solution for a manufactured product from a given brief including:

- b) details of the product design and material constraints.

What you must do to gain 1-2 marks/mark band 1

- a design specification that identifies basic details of the product design, the materials chosen and some constraints.

Suggested task

Using the outcomes from your research:

- i) Produce a design specification that lists the basic product details, eg the packaging must be able to hold six bars.
- ii) Make a list of some of the materials and constraints in your design specification, eg the packaging must be made from paperboard and hold six bars.

What you must do to gain 3-4 marks/mark band 2

- a design specification that describes some of the details of the product design, the materials chosen and the constraints.

Suggested task

Using the results of research:

- i) Describe the main product details with some qualification, eg packaging must be suitable to hold six bars and be able to display the contents.
- ii) Describe the main materials and constraints in your design specification, eg the packaging must be made from paperboard and hold six bars and be able to display legal labelling requirements.

What you must do to gain 5-6 marks/mark band 3

- a design specification that explains the main details of the product design, justifies the materials chosen and evaluates the constraints.

Suggested task

Following an analysis of your research:

- Explain the main product details giving reasons why it needs to be shown in your design specification, eg research found that six was an ideal number and to include all the legal labelling needs on the packet.
- Justify the main materials and carry out an evaluation of their constraints, eg high shrink PVC sheet is used to protect and display the contents so that existing production methods can be used in order to avoid extra capital expenditure.

Formative Feedback

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Summative Feedback

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TITLE OF ASSESSMENT ACTIVITY - Wrap up a RapSnack

What must be included in your portfolio:

You need to produce a product design specification and design solution for a manufactured product from a given brief including:

- c) details of production requirements and quality standards.

What you must do to gain 1-2 marks/mark band 1

- a design specification that identifies basic details of production requirements and quality standards.

Suggested task

- i) List the basic production details and requirements, eg packaging should be done in quantities to suit the batch requirements.
- ii) List the basic details of quality standards, eg packaging must contain all the legal labelling requirements.

What you must do to gain 3-4 marks/mark band 2

- a design specification that describes some of the details of production requirements and quality standards.

Suggested task

- i) Describe the main product details with some qualification and reason, eg the bars will be packaged in packs of six units arranged side by side with the name uppermost to ease storage at point of sale.
- ii) Describe the main quality standards with reasoning, eg packaging must contain all the legal labelling requirements showing the weight of the bar in order that customers can check the correct quantities have been given.

What you must do to gain 5-6 marks/mark band 3

- a design specification that explains the main details of production requirements and quality standards.

Suggested task

- Explain the main production details and requirements, eg the packaging quantities to be suitable to match the batch size requirements.
- Explain the main details of quality standards, eg European packaging laws insist that product weights appear on all food packaging or it would result in litigation.

Formative Feedback

Signature:

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Summative Feedback

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Date:



TITLE OF ASSESSMENT ACTIVITY - Wrap up a RapSnack

What must be included in your portfolio:

You need to produce a product design specification and design solution for a manufactured product from a given brief Including:

- d) a range of design ideas and evidence of testing them.

What you must do to gain 1-2 marks/mark band 1

- the generation of basic design ideas and limited testing of ideas.

Suggested task

- i) Produce 2 or 3 basic design ideas which are variations on a single idea, eg a range of ideas that are all the same shape etc.
- ii) Carry out limited testing of your ideas against some parts of the given design brief, eg the packaging must be tested to be tamper proof.

What you must do to gain 3-4 marks/mark band 2

- the generation of alternative design ideas and a range of testing of ideas.

Suggested task

- i) Produce a range of alternative design ideas, eg a range of different design ideas.
- ii) Produce a range of testing the ideas against the given design brief, eg the packaging must be tested to be tamper proof and a suitable test on toxicity of materials used in the packaging design.

What you must do to gain 5-6 marks/mark band 3

- the generation of imaginative design ideas and objective testing of ideas.

Suggested task

- Produce a range of 3 or 4 design ideas which show some imagination and quality, using a range of design strategies and techniques, eg quality outcomes using 2D and 3D designs.
- Carry out objective testing to show how the given design brief has been met by your design ideas, eg testing of the design ideas over a range of features in a comparative, objective way and against the design brief.

Formative Feedback

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Summative Feedback

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TITLE OF ASSESSMENT ACTIVITY - Wrap up a RapSnack

What must be included in your portfolio:

You need to produce a product design specification and design solution for a manufactured product from a given brief Including:

- e) evidence of how you tested and justified your final solution.

What you must do to gain 1-2 marks/mark band 1

- limited testing against the design criteria and an outline of the final design solution.

Suggested task

- i) Produce a record of limited testing against the given design brief, eg a basic questionnaire of the target market to assess colour attractiveness.
- ii) Produce a brief statement indicating how the final design solution meets the requirements, eg this idea is tamper proof.

What you must do to gain 3-4 marks/mark band 2

- a range of testing against the design criteria and a description of the final design solution.

Suggested task

- i) Produce a record of a range of testing against the given design brief, eg a questionnaire to discover views of the target market and retailer.
- ii) Describe how your final solution meets all the needs of the given design brief, eg a product evaluation grid to demonstrate coverage.

What you must do to gain 5-6 marks/mark band 3

- objective testing against the design criteria and a justification of the final design solution.

Suggested task

- Produce a record of objective testing against the design criteria to give some measureable outcomes, eg colour testing in sunlight conditions (simulated).
- Justify your design solution against the design criteria, eg use of a polypropylene material which is available in food grade quality which makes it suitable for this product.

Formative Feedback

Signature:

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Summative Feedback

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TITLE OF ASSESSMENT ACTIVITY - Wrap up a RapSnack

What must be included in your portfolio:

You need to produce a product design specification and design solution for a manufactured product from a given brief including:

f) evidence of how you selected and used presentation techniques.

What you must do to gain 1-2 marks/mark band 1

- the selection and use of a limited range of techniques to present the final solution.

Suggested task

- Make a simple statement of why a limited range of communications techniques were used, eg a statement that suggests that the PowerPoint presentation of the design indicates the attractiveness to the client.
- Use, with some skill, a limited range of techniques to present your final solution, eg show the use of 2D images, Observation Record.

What you must do to gain 3-4 marks/mark band 2

- the selection and use of a range of techniques to present, in some detail, the final solution.

Suggested task

- Explain why a range of techniques were chosen, eg 'I included graphs and charts in my PowerPoint to add interest'.
- Produce a clear presentation of the overall solution and some individual points using a range of techniques, eg this can be done by an Observation Record.

What you must do to gain 5-6 marks/mark band 3

- the selection and use of an appropriate range of techniques to present, in detail, the final solution.

Suggested task

- Select and justify a range of appropriate techniques to present your final solution, eg 'I have rejected acetates for a PowerPoint presentation shown on a SMART board in order that the audience can be interactive'.
- For your overall solution clearly communicate all key points and appropriate techniques used in your presentation, eg this can be done by an Observation Record.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

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TITLE OF ASSESSMENT ACTIVITY - Wrap up a RapSnack

What must be included in your portfolio:

You need to produce a product design specification and design solution for a manufactured product from a given brief including:

- g) evidence of how you responded to external feedback and modified your design proposal.

What you must do to gain 1-2 marks/mark band 1

- limited response to external feedback and the identification of relevant modifications to the design proposal.

Suggested task

- i) Make a statement explaining what you will do in response to external feedback you have received about your solution, eg a brief statement regarding audience response to your presentation.
- ii) Make a list of the simple modifications you have made to your design proposal in the light of feedback from external sources, eg 'I changed my colours because the writing was not legible with the colours I used'.

What you must do to gain 3-4 marks/mark band 2

- evaluation of external feedback and a description of relevant modifications to the design proposal.

Suggested task

- i) Evaluate the external feedback you received that addresses most of the important points about your design proposal, eg a range of statements to explain the responses given by an audience to your presentation.
- ii) Describe the most important modifications you made in response to external feedback, eg 'The colours I used caused the writing to be illegible so I changed the colours by revisiting my presentation in PowerPoint and amending the font colours'.

What you must do to gain 5-6 marks/mark band 3

- objective evaluation of external feedback and an explanation of relevant modifications to the design proposal.

Suggested task

- Evaluate in detail all the external feedback you have received that addresses all significant important points about your design proposal, eg a range of statements to explain in detail all the responses given by an audience to your presentation that will affect your modifications to your design proposal.
- Explain all important modifications you made in response to evaluating the external feedback, eg 'The colours I used caused the writing to be illegible so I changed the green font colour by revisiting my presentation in PowerPoint and amending the colour to red as this stands out much better'.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

Date:

Observation Record

Candidate Name:

Candidate number:

Unit 1 Designing Products for Manufacture

Activity context:

The presentation by the candidate of their final solution to an audience.

Assessment evidence:

f) evidence of the selection and use of appropriate techniques to present details of the final solution.

Observation notes:

Specific comments on candidate performance that demonstrates achievement of the assessment evidence for criteria f in mark bands 1, 2 and 3.

(You should describe briefly the context and circumstances of the presentation).

- List below the presentation techniques that were used:

- 1.
- 2.
- 3.
- 4.
- 5.

- Did the presentation show the final solution in some detail? YES/NO

(You should explain briefly what detail's were included, e.g. materials, costs, production processes required).

- Was the range of techniques appropriate? YES/NO

(You should comment on the appropriateness of the techniques used in relation to the product and the audience.)

Assessor name:

Assessor signature:

Date:

Observation Record

Candidate Name:

Candidate number:

Unit 1 Designing Products for Manufacture

Activity context: The presentation by the candidate of their final solution to an audience.

Assessment evidence:

f) evidence of the selection and use of appropriate techniques to present details of the final solution.

Observation notes:

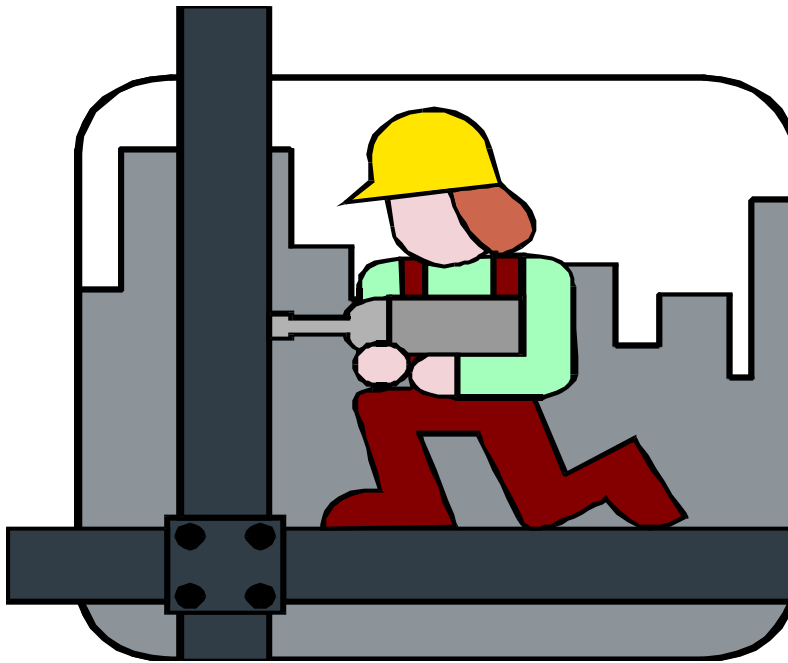
Specific comments on candidate performance that demonstrates achievement of the assessment evidence for criteria f in mark bands 1, 2 and 3.
(You should describe briefly the context and circumstances of the presentation).

- List below the presentation techniques that were used:
 - 1
 - 2
 - 3
 - 4
 - 5
- Did the presentation show the final solution in some detail? YES/NO
(You should explain briefly what details were included, eg materials, costs, production processes required).
- Was the range of techniques appropriate? YES/NO
(You should comment on the appropriateness of the techniques used in relation to the product and the audience.)

Assessor name:

Assessor signature:

Date:



Manufacturing

Unit 2 - Manufacturing Products



Student Assessment Activities

advancing learning, changing lives

Professional Development and Training



TITLE OF ASSESSMENT ACTIVITY	The Chocolate Slice
SUBJECT	Manufacturing
UNIT NUMBER AND TITLE	Unit 2 - Manufacturing Products

	<p>GET READY:</p>	<p>You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials. You must also compile a portfolio.</p>
	<p>GET SET:</p>	<p>Kate's Cookies is a new large-scale bakery that is producing food items for sale in large supermarkets.</p> <p>The chocolate slice is a new item in their 'Home Cooked' line and before setting up a production line they wish to do market research in one shop.</p> <p>Your small bakery has been commissioned, by Kate's Cookies, to produce one batch of 20 items that are to be offered for sale at a special promotion event in four days time. You have been provided with detailed instructions on how the product is to be made and '<i>The Chocolate Slice</i>' must be made exactly to the recipe.</p> <p>It is important that you fully document all procedures since your bakery may receive a contract to make large quantities of these traditionally baked products. Your records and notes will be helpful in future planning to ensure that the process is efficient and cost effective.</p>



GO:

You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials.

You must also compile a portfolio to show how you:

- a) worked as part of an effective team
- b) used a production plan and developed a schedule for manufacture
- c) used quality control techniques and identified problems
- d) prepared and used materials and components safely
- e) prepared and used tools, equipment (including appropriate use of ICT) and machinery safely
- f) manufactured your product safely to meet requirements and conform to standards
- g) modified the production plan and schedule for manufacture.



TITLE OF ASSESSMENT ACTIVITY - The Chocolate Slice

What must be included in your portfolio:

You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials. You must also compile a portfolio to show how you:

- a) worked as part of an effective team.

What you must do to gain 1-2 marks/mark band 1

- that the student contributed to the work of an effective team, and the student's success in meeting some targets.

Suggested task

Identify the role played by each member of the team eg make a list of the job roles allocated to each member of the team and show how you met some of your targets during the production of the batch of chocolate slices.

What you must do to gain 3-4 marks/mark band 2

- that the student helped build an effective team, and the student's success in meeting key targets.

Suggested task

Describe your role in the team and how you helped ensure the team worked effectively to meet key team targets, eg you could include the minutes of team meetings to show how you helped to identify and allocate roles within the team and how the team successfully met key targets during production.

What you must do to gain 5-6 marks/mark band 3

- that the student played a leading role in building an effective team, and the student's success in meeting all achievable targets.

Suggested task

Describe and evaluate your role in the team and how you helped ensure the team worked effectively to meet all achievable team targets, eg you could include the minutes of team meetings to show how you helped to identify, allocate and organise roles within the team and how the team successfully met key targets during production.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

Date:



TITLE OF ASSESSMENT ACTIVITY - The Chocolate Slice

What must be included in your portfolio:

You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials. You must also compile a portfolio to show how you:

b) used a production plan and developed a schedule for manufacture.

What you must do to gain 1-2 marks/mark band 1

- use of some details in a production plan and the development of an outline schedule for manufacture.

Suggested task

Write a simple statement about the manufacture of the product, based on the information given in the production plan and produce an outline schedule for manufacture, eg produce an outline schedule in the form of a table or Gantt chart that gives most of the key stages of production.

What you must do to gain 3-4 marks/mark band 2

- use of the main information in a production plan and the development of a realistic schedule for manufacture.

Suggested task

Write a more detailed statement about the manufacture of the product, based on the information given in the production plan and produce a realistic schedule for manufacture, eg produce a realistic schedule in the form of a table or Gantt chart that that another person could use to manufacture the product.

What you must do to gain 5-6 marks/mark band 3

- confident use of the main information in a production plan and the development of a detailed and effective schedule for manufacture.

Suggested task

Write a detailed statement about the manufacture of the product, based on the information given in the production plan, and produce a realistic schedule that ensures efficient manufacture, eg produce a realistic and effective schedule in the form of a table or Gantt chart that another person could use to manufacture the product.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

Date:



TITLE OF ASSESSMENT ACTIVITY - The Chocolate Slice

What must be included in your portfolio:

You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials. You must also compile a portfolio to show how you:

c) used quality control techniques and identified problems.

What you must do to gain 1-2 marks/mark band 1

- limited use of quality control techniques to monitor production and identify problems.

Suggested task

Monitor production using limited quality control, identifying and recording the problems, eg record the quality checks you undertook when manufacturing the chocolate slice.

What you must do to gain 3-4 marks/mark band 2

- use of a range of quality control techniques to monitor production and describe the causes of problems.

Suggested task

Monitor production using a range of quality control techniques and identify and record the causes of the problems, eg record the quality checks you undertook when manufacturing the chocolate slice and describe the causes of the problems.

What you must do to gain 5 - 6 marks/mark band 3

- use of objective quality control techniques to monitor production and explain how to prevent problems happening again.

Suggested task

Monitor production using a wide range of quality control techniques and record the causes of the problems, explaining how to prevent them happening again, eg record the quality checks you undertook when manufacturing the chocolate slice, describe the causes of the problems and explain how you could prevent them happening again.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

Date:



TITLE OF ASSESSMENT ACTIVITY - The Chocolate Slice

What must be included in your portfolio:

You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials. You must also compile a portfolio to show how you:

d) prepared and used materials and components safely.

What you must do to gain 1-2 marks/mark band 1

- preparation, with guidance, of materials and components, according to some relevant production criteria, using materials safely with some skill to make a product.

Suggested task

Record how you will prepare materials and components based on your schedule of manufacture, eg annotated photographs reported by assessors witness statements.

What you must do to gain 3-4 marks/mark band 2

- preparation, with limited guidance, of materials and components, according to the main production criteria, using materials safely with skill to make a product.

Suggested task

Record how you will prepare materials and components based on your schedule of manufacture, eg annotated photographs reported by assessors witness statements.

What you must do to gain 5-6 marks/mark band 3

- independent preparation of materials and components, according to all relevant production criteria, achieving optimum and safe use of materials when making a product.

Suggested task

Record how you will prepare materials and components based on your schedule of manufacture, eg annotated photographs reported by assessors witness statements.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

Date:



TITLE OF ASSESSMENT ACTIVITY - The Chocolate Slice

What must be included in your portfolio:

You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials. You must also compile a portfolio to show how you:

- e) prepared and used tools, equipment (including appropriate use of ICT) and machinery safely.

What you must do to gain 1-2 marks/mark band 1

- preparation, with guidance, of tools, equipment and machinery with some skill, using them safely with some accuracy to make a product.

Suggested task

Record how you will prepare tools, equipment and machinery based on your schedule for manufacture, eg annotated photographs supported by assessors witness statements.

What you must do to gain 3-4 marks/mark band 2

- preparation, with limited guidance, of tools, equipment and machinery with skill, using them safely with accuracy and some skill to make a product.

Suggested task

Record how you will prepare tools, equipment and machinery based on your schedule for manufacture, eg annotated photographs supported by assessors witness statements.

What you must do to gain 5-6 marks/mark band 3

- independent and precise preparation of tools, equipment and machinery, using them safely with accuracy and skill to make a product.

Suggested task

Record how you will prepare materials and components based on your schedule of manufacture, eg annotated photographs reported by assessors witness statements.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

Date:



TITLE OF ASSESSMENT ACTIVITY - The Chocolate Slice

What must be included in your portfolio:

You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials. You must also compile a portfolio to show how you:

- f) manufactured your product safely to meet requirements and conform to standards.

What you must do to gain 1-2 marks/mark band 1

- safe manufacture of the product, to meet some client requirements and to conform to some quality standards required.

Suggested task

Record how you will safely manufacture the product to meet some of the production requirements including some quality standards, eg produce and follow a risk assessment for the product manufacture and record how the product meets some of the quality requirements using annotated photographs supported by assessor witness statements.

What you must do to gain 3-4 marks/mark band 2

- safe manufacture of the product, to meet the main client requirements and to conform to the main quality standards required.

Suggested task

Record how you will safely manufacture the product to meet the main production requirements including the main quality standards, eg produce and follow a risk assessment for the product manufacture and record how the product meets the main quality requirements using annotated photographs supported by assessor witness statements.

What you must do to gain 5-6 marks/mark band 3

- safe manufacture of the product, to effectively meet the main client requirements and to consistently conform to the main quality standards required.

Suggested task

Record how you will safely manufacture the product to effectively meet the main productions requirements showing how the main quality standards were consistently achieved, eg produce and follow a risk assessment for the product manufacture and record how the product consistently meets the main quality requirements using annotated photographs supported by assessor witness statements.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

Date:



TITLE OF ASSESSMENT ACTIVITY - The Chocolate Slice

What must be included in your portfolio:

You need to produce a quantity of one product, from a given product specification and production plan. The product must be made from at least two components or different materials. You must also compile a portfolio to show how you:

g) modified the production plan and schedule for manufacture.

What you must do to gain 1-2 marks/mark band 1

- modifications, some of which are relevant and lead to the improvement of some aspects of the production plan and schedule for manufacture in response to quality data.

Suggested task

Make a list of some relevant modifications to the production plan and schedule as a result of quality data collection during the making of the product. Produce a summative report listing the modifications needed to the schedule.

What you must do to gain 3-4 marks/mark band 2

- modifications, most of which are relevant and lead to the improvement of several aspects of the production plan and schedule for manufacture in response to quality data.

Suggested task

Describe relevant modifications to the production plan and schedule as a result of quality data collection during the making of the product. Produce a summative report listing the modifications needed to the schedule.

What you must do to gain 5-6 marks/mark band 3

- modifications, all of which are relevant and lead to the improvement of significant aspects of the production plan and schedule for manufacture in response to quality data.

Suggested task

Explain relevant modifications to the production plan and schedule as a result of quality data collection during the making of the product. Produce a summative report listing the modifications needed to the schedule.

Formative Feedback

Signature:

Date:

Summative Feedback

Signature:

Date:



GCSE Manufacturing

Unit 2 - Manufactured Products

Product Specification

Product: The Chocolate Slice

Batch quantity = 20

Estimated start up, production and close down time = 2 hours

Component	Ingredients	Weight/Size	Tolerance
Slice	Chocolate Sponge	100mm x 40mm x 20mm	± 1mm
Base	Self raising flour	200g	± 5g
	Caster sugar	200g	± 5g
	Soft margarine	200g	± 5g
	Eggs	Size 4	± 0
	Cocoa powder	50g	± 1g
Topping	Icing sugar	100g	± 2g
	Cocoa powder	15g	± 0.5g
	Soft margarine	200g	± 5g



GCSE Manufacturing - Unit 2 - Manufacturing Products

Production Plan

Product: The Chocolate Slice

Stage No.	Process (What will I do)	Materials/Ingredients	Tools/equipment/machinery	Health and Safety	Quality Checks	Estimated times	Actual time
1	Self preparation		Overalls, hat, sink, sanitising agent	Put on overall, hat and wash hands clean		5 minutes	
2	Weigh out ingredients	As specified	Digital scales		Weight	10 minutes	
3	Prepare equipment		Baking tray, food processor, spatula, knife, tablespoon, fork, oven, cooling tray	Clean equipment, no loose wires		7 minutes	
4	Grease and line tray	1 teaspoon of oil, 1 sheet of A4 greaseproof paper	Pastry brush			2 minutes	
5	Put on oven				200degrees C/Gas mark 5	1 minute	
6	Place base ingredients into processor and mix together	As specified	Food processor	Ensure fingers are away from blade	Power - 3 speed	5 minutes	
7	Place mixture into baking tray and smooth surface	From 6	Tablespoon, prepared baking tray, spatula		Consistency of size	10 minutes	

8	Place tray into oven, set time		Oven with timer	Use over gloves	Temperature check, time check	15 minutes	
9	Clean area and equipment			Food processor, spatula, knife, tablespoon, pastry brush, preparation area		10 minutes	
10	Remove tray from oven set on cooling tray		Cooling tray	Use oven gloves	Colour, size	10 minutes	
11	Put topping ingredients into processor and mix together	As specified	Food processor	Ensure fingers are away from blade	Power/speed 4	5 minutes	
12	Spread topping on base	Spatula, tablespoon			size	4 minutes	
13	Slice into required size	Knife and ruler			size	6 minutes	
14	Decorate surface with fork \lines	fork			Consistent pattern	5 minutes	
15	Clean area and equipment	Food processor, spatula, tablespoon, fork, knife, ruler, baking, tray		Final clean of equipment and working area		10 minutes	
16	Final inspection				Size, colour, pattern, quantity	2 minutes	

GCSE Manufacturing Unit 2 - Manufactured Products

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GCSE Manufacturing - Unit 2 - Manufacturing Products
Production Plan
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