

Candidate F – Lifestyle and Consumer Technology – With Errors

Home Economics Intermediate 2

Technological Project Pro forma

Notes for candidates

- 1 Instructions for completing the pro forma are contained in the Notes of Guidance for Candidates.
- 2 Do not add pages to the pro forma.
- 3 The pro forma should be completed in the set font (Times New Roman 11 point).
- 4 Do not use the “TAB” key, use “Ctrl TAB” to tabulate text.
- 5 Candidate details should be entered on the flyleaf which will be issued to your centre by SQA.
- 6 Page 14 has been set up to allow digital photographs to be imported.
- 7 Do not type outwith the boxes.

Technological Project Brief

Candidate F

Develop an environmentally friendly food or textile item for sale at a school event

Step 1.1 Analyse a complex situation, issue or problem – 5 marks available

- Identify the key points from the project brief
- Explain the relevance of the key points to the situation, issue or problem given in the project brief.

Key points (number each point) (2 marks)	Explanation (3 marks)
1 develop	<ul style="list-style-type: none"> • I have to make a new product from the beginning ✓
2 an	<ul style="list-style-type: none"> • I need to consider the age group this product is for, the time I have to make it and the cost involved. ✓
3 environmentally friendly	<ul style="list-style-type: none"> • I need to consider and select the product from my investigations. <i>not an explanation of 'an'</i> ✗
4 food or textile	<ul style="list-style-type: none"> • My product must not be harmful to the environment in any way. ✓
5 item	<ul style="list-style-type: none"> • My final product has to be made using ingredients which can be eaten or used. <i>no explanation of 'textile'</i> ✗
6 for sale	<ul style="list-style-type: none"> • I only have to make one product ✓
7 at a school event	<ul style="list-style-type: none"> • I need to consider what people want to buy and the cost of making the product. ✓
	<ul style="list-style-type: none"> • I need to make sure my product is appealing to school pupils and teachers ✓

The candidate has correctly identified all the key points. 2 marks

The candidate has explained the relevance to the brief of less than 1/2 of the key points 0 marks

There is correct additional detailed explanation at key point 1 1 mark

Total marks for Step 1.1 3 marks

Step 1.2 Draw up appropriate criteria for a specification – 4 marks available	
Specification point (number each point) (2 marks)	How it can be measured (2 marks)
My product must:	
1 be environmentally friendly <i>does not contain more detail than the brief</i>	1 Interview with a Biology teacher
2 be a suitable standard for selling at a school function	2 Interview with Home Economics teacher
3 be attractive and appealing	3 Sensory testing <i>no target group identified</i>
4 be made within my skills and abilities	4 Interview with Home Economics teacher
5 be made within the time available to me	5 Interview with Home Economics teacher
6 be useful <i>not relevant to the brief</i>	6 Survey school pupils <i>specification point is incorrect therefore measure is incorrect</i>
<i>The candidate has identified five valid specification points which allows for a range of solutions (minimum of four valid specification points required)</i>	<i>½ or more of the specification points have been written in measurable terms</i>
<i>1 mark</i>	<i>1 mark</i>
<i>Not all specification points contain more detail than the brief.</i>	
<i>0 marks</i>	

Total marks for Step 1.2 2 marks

Step 1.3 Devise an overall plan for investigations – 4 marks available	
Investigation required (number each investigation) (2 marks)	Technique to be used (2 marks)
<p>Find out:</p> <p>1 what food and fabric resources are available for me to use ✓</p> <p>2 the likes of the target group ✓</p> <p>3 the dislikes of the target group <i>though valid, this is a repeat of Investigation 2 therefore cannot be awarded as a separate investigation</i></p> <p>4 what the target group would like to see at a school event <i>though valid, this is a repeat of Investigation 2/3 therefore cannot be awarded as a separate investigation</i></p> <p>3 the kind of product I could make in the time available to me ✓</p> <p>4 potentially suitable recipes and find out what they would cost to make ✓</p> <p>5 resources and equipment available to me <i>this is a repeat of investigation 1 therefore cannot be awarded as a separate investigation</i></p> <p><i>The candidate has omitted to investigate the required investigation current environmental issues' therefore the entire mark allocation is unavailable. The candidate has four relevant investigations 1 mark (minimum of four valid investigations required)</i></p>	<ul style="list-style-type: none"> • retail search <i>only finds out which resources are accessible, not those which may be used.</i> x • questionnaire to school pupils ✓ • questionnaire to school pupils ✓ <i>although the candidate cannot be awarded for a repeat investigation, the technique is valid and can be awarded</i> • questionnaire to school pupils ✓ <i>although the candidate cannot be awarded for a repeat investigation, the technique is valid and can be awarded</i> • interview with Home Economics teacher ✓ • internet research <i>this would require a costing exercise to determine how much each recipe would cost to make</i> x • interview with Home Economics teacher ✓ <p><i>The candidate has correctly identified ½ or more techniques used 1 mark</i></p>

Total marks for Step 1.3

2 marks

Total marks for Step 1

7 marks

Step 1.3 Devise an overall plan for investigations (continued)

Given the time available, choose from the proposed list of investigations three that you think are the most important in relation to the needs of the project brief.

Investigation number	Investigation to be carried out
1	Internet search.
2	Questionnaire with secondary school pupils
3	Interview Home Economics teacher

Now carry out each of the investigations listed above

Step 2.1 Implement the overall plan for investigations

For each investigation carried out:

- record the results
- draw conclusions from the results

Step 1.2 Investigations – 12 marks available

Investigation 1 (4 marks)

Aim Internet search

Results

Environmentally friendly food resources	Environmentally friendly textile resources
butter	hemp
salt	wool
eggs	cotton
castor sugar	
chocolate	
walnuts	
salt	
plain/SR flour	

Conclusion

- The food resources are easier for me to get, so I will make a food product.

There are no websites indicated therefore the candidate has not carried out the aim.

For both food and textile resources, it is highly unlikely that the results shown are the total of those which could be found during an internet search, therefore cannot be deemed to be based on fact.

For food resources, the results comprise only of those used in the final solution.

The conclusion is not based on the results of the investigation.

The candidate has not carried out the aim as stated on Page 6

0 marks

The results are brief, concise and easy to interpret

1 mark

The results are based on fact and relevant to the brief

0 marks

The candidate has not given a valid conclusion

0 marks

Step 1.2 Investigations (continued)**Investigation 2 (4 marks)**

Aim Questionnaire with secondary school pupils

Results I gave the questionnaire to 20 pupils in my school.

Q1 What age are you? *not relevant to the investigation*
 12 - **15**
 13 - 5
 14 - 0

Q2 Are you male or female? *not relevant to the investigation*
 Male - 9
 Female - **11**

Q3 What do you think the term 'environmentally friendly' means? *not relevant to the investigation*
 'friendly to the environment' - **18**
 'does not harm the environment' - 2

Q4 Which of the following would you be most likely to buy at a school event? (Tick two choices)
 Sausage rolls - 4
 Mini quiches - 3
 Pizza - 3
 Sponge cakes - 2
 Oaty biscuits - 2
 Chocolate brownies - **12**
 Chocolate truffles - 14

Q5 How much would you be prepared to pay for an environmentally friendly product?
 20p – 50p - **15**
 50p – 75p - 5
 75p - £1 - 0

Conclusion

- Most pupils said they would most likely to buy chocolate brownies so I will make them my final product.

less than 1/2 the questions are relevant to the investigation, therefore cannot be awarded as relevant.

The conclusion is not based on the results of the investigation.

The candidate has carried out the aim as stated on Page 6

1 mark

The results are brief, concise and easy to interpret

1 mark

The results are not relevant to the brief

0 marks

The candidate has not given a valid conclusion

0 marks

Step 1.2 Investigations (continued)

Investigation 3 (4 marks)

Aim Interview Home Economics teacher.

Results

Q1 What kind of food items would be suitable for sale at a school event?

A Items that can be stored easily as they would probably need to be made the day before the event. Small items usually sell well and items that are cheap to produce will increase profits.

Q2 Considering my skills, what type of product would you recommend I make?

A Your food skills are quite good, but I suggest you do not attempt anything which is too complicated as you need to get a good result.

Q3 What do you think the product would cost? Why?

A A food item should not cost more than £1.00 or the pupils will not be able to afford it.

Q4 Do you think the pupil will buy an organic product?

A Yes, as long as it does not cost too much more than a regular product.

Conclusion

- Items should be small, be able to be stored easily and able to be made the day before.
- My skills are quite good.
- The item should sell for less than £1.00.
- Pupils will buy an organic product if it does not cost too much.

Conclusions are all statements which repeat results of the investigation.

The candidate has carried out the aim as stated on Page 6 1 mark
The results are brief, concise and easy to interpret 1 mark
The results are based on fact and relevant to the brief 1 mark
The candidate has not given a valid conclusion which shows progression 0 marks

Total marks for Step 2.1 6 marks

Step 2.2 Derive a solution from the investigations – 3 marks available

Chosen solution (2 marks)

Chocolate brownies

*This is not the most popular choice in Investigation 2.
There is no further evidence in the investigations that this should be the solution.*

Describe the chosen solution in detail (1 mark)

Ingredients

110g organic milk chocolate (Divine)
85g traditionally churned organic butter (High Weald Dairy)
3 organic eggs
170g organic golden caster sugar
85g organic self raising flour (Clarkes)
Pinch organic salt (Batr's)
110g organic walnuts (Crazy Jacks)

Method

1. Butter and line a 15cm x 20cms baking tray. Preheat oven to 180°C
2. Whisk eggs and salt together.
3. Sieve flour onto a plate.
4. Reserve 16 walnut halves, and chop the remainder.
5. Melt the chocolate in a bowl over a pan of hot water.
6. Cream the butter and sugar together till pale.
7. Beat in the eggs.
8. Fold in the sieved flour.
9. Add the melted chocolate.
10. Add the chopped walnuts.
11. Pour into the prepared tin.
12. Space the walnut halves evenly on top.
13. Bake for 25 minutes.
14. Leave to cool in tin.
15. Cut into 16 squares when cold.

The candidate has generated one solution which is not based on the results of investigations but is appropriate to the brief.

1 mark

The candidate has given a description of the solution which can be visualised.

1 mark

Total for Step 2.2

2 marks

Total for Step 2

8 marks

Step 3.1 Manufacture the chosen solution – 12 marks available	
Time allocation (3 marks)	Step-by-step sequence of work (3 marks)
<u>Thursday 10th January, 2008.</u> 9.55am – 10.50	
9.55 – 10.05	Set oven. Collect equipment. Grease and line tin.
10.05 – 10.15	Weigh all ingredients.
10.15 – 10.18	Whisk eggs and salt together. Sieve flour. Chop walnuts.
10.18 – 10.20	Cream the butter and sugar. Beat in the egg. Fold in the flour. Stir in the melted chocolate.
10.20 – 10.25	Pour into the prepared tin. Put walnuts on top. Bake for 25 minutes.
10.25 – 10.50	Wash up. Prepare sheet for testing
10.50	Take brownies from oven. Leave to cool in tin. Wipe up.

Timeplan - uneven distribution of time (ie 20 minutes allowed for first two stages then only 2 minutes allowed to make brownie mixture)
- no time allocated to cooling or cutting up of brownies.

Work sequence - kettle is not boiled
- walnuts are not added to the mixture
- chocolate is not melted
- brownies not cut

The candidate has produced a satisfactory timeplan

1 mark

The candidate has produced a satisfactory sequence of work

1 mark

Step 3.1 Manufacture the chosen solution (continued)	
Identify and requisition all the resources and equipment required to manufacture the solution	
Resources required (3 marks)	Equipment required (3 marks)
<p>110g organic milk chocolate (Divine) 85g traditionally churned organic butter (High Weald Dairy) 3 organic eggs 170g organic golden caster sugar 85g organic self raising flour (Clarkes) Pinch organic salt (Batr's) 110g organic walnuts (Crazy Jacks)</p> <p><i>Greaseproof paper and butter for greasing have been omitted</i></p> <p><i>The candidate has identified most main resources required</i> <i>2 marks</i></p>	<p>scales baking tray small pan kettle baking bowl cup plate chopping board chef's knife sieve fork wooden spoon tablespoon cooling tray serving plate</p> <p><i>size/shape of baking tray not indicated bowl for melting chocolate omitted serving plate omitted</i></p> <p><i>The candidate has identified some of the main equipment required</i> <i>1 mark</i></p>

Total for Step 3.1

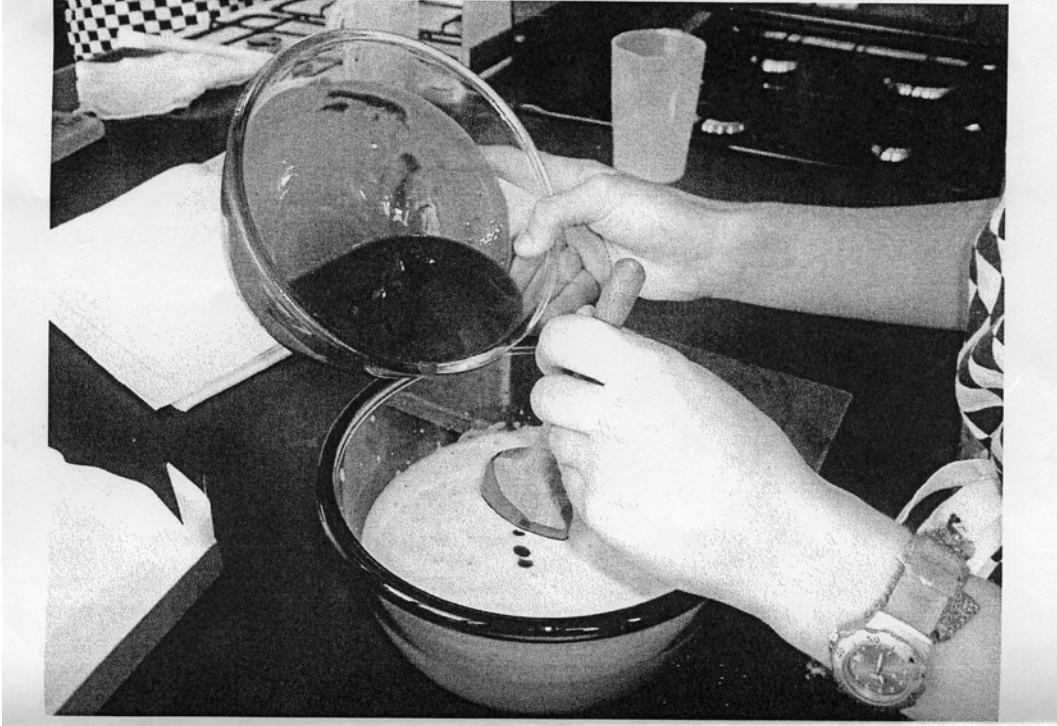
5 marks

Now manufacture your chosen solution

This page is for the candidate's own use

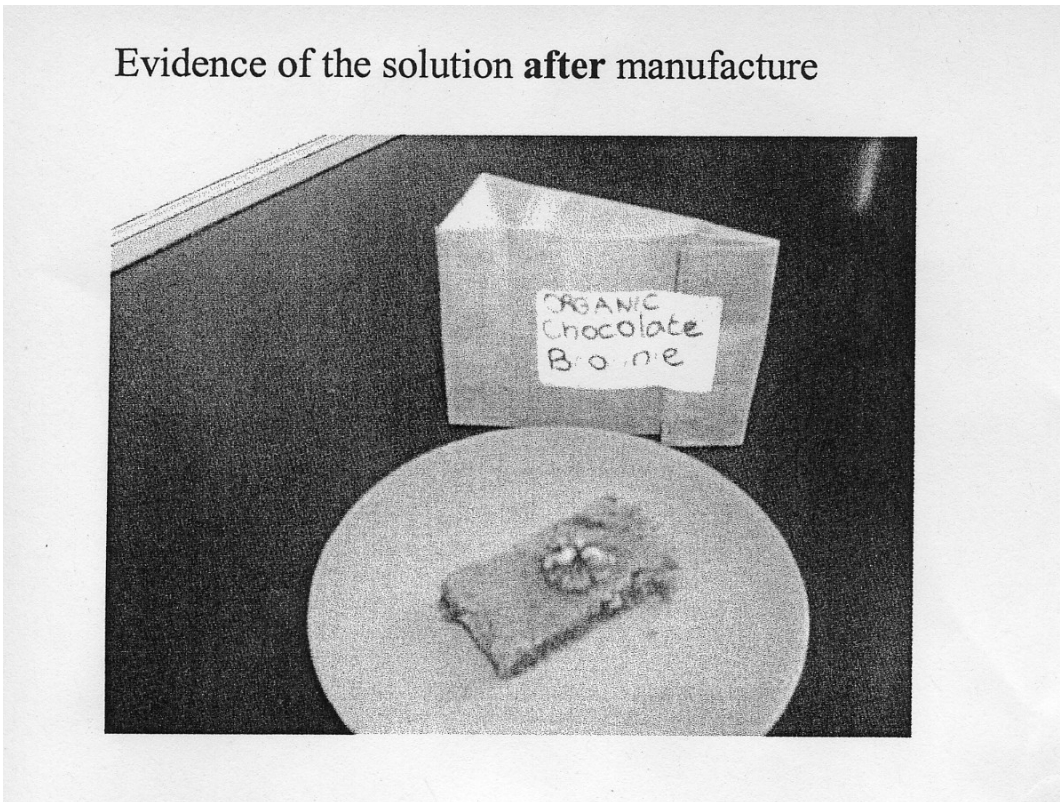
It may be used to make notes during manufacture or record any modifications made to the plan

Authenticated photographic evidence of manufacture



Evidence of the solution **during** manufacture

Evidence of the solution **after** manufacture



Evidence of the solution **after** manufacture

Step 3.2 Devise one test for the manufactured solution – 1 mark available	
Test to be carried out	Technique to be used
Find out school pupils to find their opinion of my product.	Find out what they think about the appearance, texture and flavour of my product.

The candidate has not identified an appropriate technique to be used.

0 marks

Total for Step 3.2

0 marks

Now carry out the test

Step 3.3 Implement the test for the manufactured solution
<p>For the test carried out:</p> <ul style="list-style-type: none"> • record the results • draw conclusions from the results

Step 3.3 Implement the test for the manufactured solution (continued) – 3 marks available

Test

Results I asked 5 school pupils to try my product and the results are shown below.

Key: 1 = very poor
2 = fair
3 = acceptable
4 = good
5 = excellent

	Total marks
Appearance	21
Texture	24
Taste	25

These are a summary of results as the scores given by individual testers are not shown. Therefore the results cannot be awarded as easy to interpret or based on fact

Conclusion

- My product would be a success because all the ingredients were organic and the testers all gave it high scores.

Conclusion is not based on results of testing.

The results are brief, concise and east to interpret 0 marks

The results are based on fact and relevant to the brief 0 marks

The candidate has given a valid conclusion which shows progression 0 marks

Total for Step 3.3 0 marks

Total for Step 3 5 marks

Step 4.1 Evaluate the chosen solution – 6 marks available	
Evaluate the solution against the specification points (3 marks) Use the results either from investigations, manufacture and/or testing where appropriate.	
Specification point	Evaluation
My product must:	
1 be environmentally friendly	All the ingredients in my product were organic, so it was environmentally friendly ✓
2 be a suitable standard for selling at a school function	My product as suitable for selling at a school function because all the testers gave it high scores. <i>High scores for appearance, texture and taste do not prove suitability for sale.</i> x
3 be attractive and appealing	My product was attractive and appealing because in my test, the testers gave it high scores. ✓
4 be made within my skills and abilities	My product was made within my skills and abilities because when I interviewed my Home Economics teacher, she said my food skills were good. <i>No evidence in the TP that the candidates skills were good enough to make this particular product.</i> x
5 be made within the time available to me	My product was made within the time available because I finished it in the period I had to make it. <i>There is no evidence of this in the TP</i> x
6 be useful	My product would be useful to sell at a school event because most people like sweet things. <i>This is the candidate's opinion. There is no evidence of this in the TP.</i> x

The candidate has evaluated less than ½ of the specification points based on the results of testing or investigations.

0 marks

Total for Step 4.1

0 marks

Step 4.1 (continued) Evaluate the overall plan

Evaluate Steps 1-3 using the following criteria:

- time
- resources
- skills and abilities

Evaluation of use of time

- It took me a long time to complete the investigations, but I caught up because I was able to make my brownie easily in the time
No evidence for this in the TP.

Evaluation of use of resources

- I was able to get all the ingredients from the Home Economics Department so I had everything I needed to make my product.
No evidence for this in the TP.

Evaluation of skills and abilities

- I have done Intermediate 1 so I can cook well and made the brownies easily.
This is based on the candidate's personal opinion. No evidence for this in the TP.

The candidate has not evaluated the plan using each of the criteria as evidence cannot be found within the candidate's Technological Project.

0 marks

Total for Step 4.2

0 marks

Total for Step 4

0 marks

TOTAL FOR TECHNOLOGICAL PROJECT

20 MARKS