



# **2009 Lifestyle and Consumer Technology Home Economics**

## **Intermediate 2 Technological Project**

### **Finalised Marking Instructions**

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## **STEP 1 Total mark allocation – 14 marks**

### **1 : 1 Identification of the key points with explanation**

The candidate should identify the ‘core’ key points – these are all the main key words of the Technological Project brief.

The number of ‘core’ key points which can be identified will depend on the wording of the Technological Project brief.

Candidates should number each key point identified.

#### **Identify the key points – 2 marks**

Candidates who record all the ‘core’ key points will gain **2 marks**.

Candidates who record ½ or more, but not all the ‘core’ key points will gain **1 mark**.

Candidates who record less than ½ the ‘core’ key points will gain **0 marks**.

#### **Basic and accurate explanation of key points – 2 marks**

Marks are determined by the number of key points which have basic and accurate explanation.

If all key points have a basic and accurate explanation, candidates will be awarded **2 marks**.

If ½ or more, but not all, the key points have a basic and accurate explanation, candidates will be awarded **1 mark**.

If less than ½ the key points have a basic and accurate explanation, candidates will be awarded **0 marks**.

#### **Detailed and accurate explanation – 1 mark**

Candidates who provide further accurate detail within the explanations will be awarded an additional mark. Extra detail means one additional point of explanation is provided for any one of the key points.

##### **Brief 1**

Develop a food or textile item suitable for a children’s party.

##### **Brief 2**

Develop a food or textile item to be sold at a school event.

##### **Brief 1**

###### **Key points**

1. develop
2. (a) food (or) textile
3. item
4. suitable
5. (for a) children’s
6. party

##### **Brief 2**

###### **Key points**

1. develop
2. (a) food (or) textile
3. item
4. (to be) sold
5. (at a) school
6. sports event

#### **Example of basic accurate explanation of key points**

**Develop** • create or devise ideas for a new product

#### **Example of further accurate detail in explanation of key points**

**Develop** • create or devise ideas for a new product  
• make a product which is original or different to what is available at present

**Total – 5 marks**

**1 : 2      Draw up appropriate criteria for a specification**

**Allow for a range of solutions – 1 mark**

Candidates whose specification allows for a range of solutions will be awarded **1 mark**.  
No marks will be awarded if a range of solutions is not possible.

**Contain more detail than the brief – 1 mark**

Specification points must be derived from the brief.

When drawing up the criteria for the specification, candidates should not just rewrite the key points – greater explanation is required.

Where specification points do not consistently contain more detail than the brief, candidates will be penalised.

**Be written in measurable terms – 2 marks**

Candidates must indicate how each specification point should be able to be measured by a valid method.

- All specification points are measurable **2 marks**
- $\frac{1}{2}$  or more, but not all specification points are measurable **1 mark**
- Less than  $\frac{1}{2}$  the specification points are measurable **0 marks**

**Note:**      Candidates are expected to produce a **minimum of four** specification points.

**Total – 4 marks**

## Step 1.2

Brief 1 – Children’s party		
Item must:		Measured by:
1	<ul style="list-style-type: none"> <li>be edible/be a fabric item</li> </ul>	Interview with food/textile technologist Component checklist/recipe analysis
2	<ul style="list-style-type: none"> <li>be suitable for children/take account of the age group of children</li> </ul>	Questionnaire/interview parents Interview with food/textile technologist/ appropriate teacher/children’s party planner/parent
3	<ul style="list-style-type: none"> <li>be suitable for a party</li> </ul>	Interview with food/textile technologist/ appropriate teacher/children’s party planner/parent
4	<ul style="list-style-type: none"> <li>be of an acceptable/satisfactory standard</li> </ul>	Interview with food/textile technologist/ appropriate teacher/children’s party planner/EHO/ parent Sensory testing with children/parent/food/textile technologist/appropriate teacher/children’s party planner/parent Quality checklist
5	<ul style="list-style-type: none"> <li>be different to other products/original</li> </ul>	Survey of retail outlets Literary/Internet search Interview with food/textile technologist/ appropriate teacher/party planner/parent
6	<ul style="list-style-type: none"> <li>be aesthetically pleasing to children</li> </ul>	Questionnaire to children/food/textile technologist/ appropriate teacher/party planner/parent Sensory testing with children/food/textile technologist/appropriate teacher/party planner/ parent Interview with food/textile technologist/ appropriate teacher/children’s party planner/parent
7	<ul style="list-style-type: none"> <li>take account of the likes/dislikes of children</li> </ul>	Questionnaire to children/food/textile technologist/ appropriate teacher/children’s party planner/parent Interview with food/textile technologist/ appropriate teacher/children’s party planner/parent Sensory testing with children/food/textile technologist/appropriate teacher/children’s party planner/parent
8	<ul style="list-style-type: none"> <li>take account of current trends</li> </ul>	Interview/questionnaire children/food/textile technologist/appropriate teacher/children’s party planner/parent
9	<ul style="list-style-type: none"> <li>be made using the facilities/resources/time available to the candidate/parent/party planner</li> </ul>	Interview with food/textile technologist/parent/ party planner Checklist of facilities/component checklist Timed trial of prototype & interview food/textile technologist
10	<ul style="list-style-type: none"> <li>be within the capabilities of the candidate/parent to produce</li> </ul>	Interview with food/textile technologist/parent/ party planner Skills analysis Trial of prototype Quality checklist
11	<ul style="list-style-type: none"> <li>be prepared under hygienic/safe conditions</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer Literary/Internet search & quality checklist
12	<ul style="list-style-type: none"> <li>be safe in use/to eat</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer Literary/Internet search & quality checklist

<b>Brief 1 – Children’s party</b>		
<b>Item must:</b>		<b>Measured by:</b>
13	<ul style="list-style-type: none"> <li>have an appropriate shelf-life/durability</li> </ul>	Interview with food/textile technologist/appropriate teacher/children’s party planner/EHO User/wearer trials
14	<ul style="list-style-type: none"> <li>be suitable for bulk production</li> </ul>	Interview with food/textile technologist/children’s party planner
15	<ul style="list-style-type: none"> <li>be cost effective/inexpensive to produce</li> </ul>	Costing exercise & interview with food/textile technologist/children’s party planner
16	<ul style="list-style-type: none"> <li>be within the budget of the children’s party planner/parent</li> </ul>	Costing exercise & interview with food/textile technologist/children’s party planner/parent Interview/survey to children’s party planner/parent
17	<ul style="list-style-type: none"> <li>be comparable in cost to similar items</li> </ul>	Costing exercise & interview with food/textile technologist/children’s party planner/parent

**Note:**

- The candidate **must** specify the term ‘expert’ if used
- A food/textile technologist could include a person working in food/textile product development or a Home Economics teacher

- NB**
- Specification Points**
    - It must be checked that the specification points are different.
    - A candidate may use different wording to state the same point.
  - Measured by**
    - The candidate must specify the term ‘expert’ if used.
    - Method of measuring must be able to check/assess whether the specification point has been met.

<b>Brief 2 – School sports event</b>		
<b>Item must:</b>		<b>Measured by:</b>
1	<ul style="list-style-type: none"> <li>be edible/be a fabric item</li> </ul>	Interview with food/textile technologist Component checklist/recipe analysis
2	<ul style="list-style-type: none"> <li>be suitable for a sporting event</li> </ul>	Interview with food/textile technologist/ appropriate teacher/sports co-ordinator
3	<ul style="list-style-type: none"> <li>be suitable for a school event</li> </ul>	Interview with food/textile technologist/ appropriate teacher/sports co-ordinator/EHO/ Trading Standards Officer
4	<ul style="list-style-type: none"> <li>be healthy/take account of current dietary targets/Hungry for Success/Schools (Health Promotion and Nutrition) (Scotland) Act 2007</li> </ul>	Interview with food technologist/dietician/health professional/sports co-ordinator
5	<ul style="list-style-type: none"> <li>be of an acceptable/satisfactory standard for sale</li> </ul>	Interview with food/textile technologist/sports co-ordinator/EHO/Trading Standards Officer Sensory testing with target group Quality checklist
6	<ul style="list-style-type: none"> <li>be different to other products for sale at the sports event/be original</li> </ul>	Interview with food/textile technologist/sports co-ordinator
7	<ul style="list-style-type: none"> <li>be aesthetically pleasing to target group</li> </ul>	Questionnaire to target group Interview with food/textile technologist/ sports co-ordinator Sensory testing with target group/food/textile technologist/appropriate teacher
8	<ul style="list-style-type: none"> <li>take account of the likes/dislikes of target group</li> </ul>	Questionnaire to target group Interview with food/textile technologist/ sports co-ordinator Sensory testing with target group/food/textile technologist/sports co-ordinator
9	<ul style="list-style-type: none"> <li>be suitable for target group</li> </ul>	Questionnaire/interview target group Interview with food/textile technologist/ sports co-ordinator
10	<ul style="list-style-type: none"> <li>take account of current trends</li> </ul>	Interview/questionnaire to target group food/ textile technologist/sports co-ordinator
11	<ul style="list-style-type: none"> <li>be made using the facilities/resources/ time available to the candidate</li> </ul>	Interview with food/textile technologist Checklist of facilities/component checklist Timed trial of prototype & interview food/textile technologist
12	<ul style="list-style-type: none"> <li>be within the capabilities of the candidate to produce</li> </ul>	Interview with food/textile technologist Skills analysis Trial of prototype Quality checklist
13	<ul style="list-style-type: none"> <li>be prepared under hygienic/safe conditions</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer Literary/Internet search & quality checklist
14	<ul style="list-style-type: none"> <li>be safe in use/to eat</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer Literary/Internet search & quality checklist
15	<ul style="list-style-type: none"> <li>be suitable to be made in advance</li> </ul>	Interview/questionnaire to target group/food/ textile technologist/appropriate teacher/EHO/ Trading Standards Officer
16	<ul style="list-style-type: none"> <li>have an appropriate shelf-life/durability</li> </ul>	Interview with food/textile technologist/ appropriate teacher/EHO/Trading Standards Officer User/wearer trials

<b>Brief 2 – School sports event</b>		
<b>Item must:</b>		<b>Measured by:</b>
17	• be suitable for bulk production	Interview with food/textile technologist
18	• be cost effective/inexpensive to produce	Costing exercise & interview with food/textile technologist/appropriate teacher
19	• be within the budget of the target group	Costing exercise & interview with food/textile technologist/sports co-ordinator Costing exercise & interview/questionnaire to target group
20	• be comparable in cost to similar products	Costing exercise & interview with food/textile technologist/sports co-ordinator

**Note:**

- The candidate **must** specify the term ‘expert’ if used
- A food/textile technologist could include a person working in food/textile product development or a Home Economics teacher

- NB**
- **Specification Points**
    - It must be checked that the specification points are different.
    - A candidate may use different wording to state the same point.
  - **Measured by**
    - The candidate must specify the term ‘expert’ if used.
    - Method of measuring must be able to check/assess whether the specification point has been met.

### **1 : 3      Devise an overall plan for investigations**

#### **List a range of relevant investigations – 2 marks**

Candidates who provide a list of possible investigations which focus clearly on

- the key points of the project brief
- the specification points
- and have a clear aim/purpose

will be awarded **2 marks**.

Candidates who provide a list of investigations which do not focus clearly on the key points and the specification will be awarded **1 mark**.

Obvious omissions from the list of investigations will result in the full mark allocation being unavailable.

#### **Identify techniques to be used – 2 marks**

All techniques are correctly identified – **2 marks**

½ or more, but not all techniques are correctly identified – **1 mark**

Less than ½ of the techniques are correctly identified – **0 marks**

Techniques must be appropriate for the investigations and so allow the candidate the possibility of collecting relevant data/information.

**Total – 4 marks**

From the proposed list of investigations drawn up in 1 : 3 above, candidates should form a prioritised list of those investigations which they propose to undertake.

No marks are awarded at this stage but candidates are expected to focus on those investigations most relevant to the needs of the project brief. A number of investigations may be combined by using one technique.

#### **Candidates should carry out 3 investigations.**

Candidates who intend to use a questionnaire as an investigation, must issue 20 in order to gain valid results.

Candidates should complete this work on page 6 of the pro forma.



**Required Investigations**

1	children
2	party

Brief 1 – Children’s party		
Investigation		Technique
1	<ul style="list-style-type: none"> <li>Types of children’s party</li> </ul>	Survey/questionnaire to parents/children Interview with food/textile technologist/children’s party planner/parent Literary/Internet search
2	<ul style="list-style-type: none"> <li>Current range of children’s party products</li> </ul>	Survey of retail outlets Interview with food/textile technologist/children’s party planner/parent
3	<ul style="list-style-type: none"> <li>Suitability for children</li> </ul>	Interview with food/textile technologist/children’s party planner/parent
4	<ul style="list-style-type: none"> <li>Ideas for potential solutions</li> </ul>	Survey of retail outlets Literary/Internet/recipe/pattern search Trial of prototype(s) Sensory testing/interview with children/children’s party planner/food/textile technologist/parent
5	<ul style="list-style-type: none"> <li>Aesthetic appeal of potential solutions</li> </ul>	Sensory testing/interview with children/children’s party planner/parent/food/textile technologist
6	<ul style="list-style-type: none"> <li>Likes/dislikes of children</li> </ul>	Interview/questionnaire with children/children’s party planner/parents/food/textile technologist
7	<ul style="list-style-type: none"> <li>Current trends</li> </ul>	Interview/questionnaire to children/children’s party planner/food/textile technologist/parent Survey of retail outlets Literary/Internet search
8	<ul style="list-style-type: none"> <li>Facilities/resources/skills available to candidate</li> </ul>	Interview with food/textile technologist Resources/equipment/skills checklist
9	<ul style="list-style-type: none"> <li>Skills necessary for manufacturing the product</li> </ul>	Interview with food/textile technologist Skills audit Recipe search/search of fabric construction books
10	<ul style="list-style-type: none"> <li>Hygiene/safety requirements for production</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer/children’s party planner Literary/Internet search
11	<ul style="list-style-type: none"> <li>Quality requirements of potential solutions</li> </ul>	Interview/sensory testing with food/textile technologist/children’s party planner/parent Trial of prototype
12	<ul style="list-style-type: none"> <li>Shelf life/durability of potential solutions</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer/children’s party planner Literary/Internet search
13	<ul style="list-style-type: none"> <li>Suitability for bulk production</li> </ul>	Interview with food/textile technologist/children’s party planner
14	<ul style="list-style-type: none"> <li>Price range of similar products</li> </ul>	Interview/sensory testing with food/textile technologist/children’s party planner/parent Survey of retail outlets
15	<ul style="list-style-type: none"> <li>Cost of potential components/solutions</li> </ul>	Costing exercise
16	<ul style="list-style-type: none"> <li>Budget of parent/children’s party planner/amount parent/party planner is prepared to pay</li> </ul>	Interview/questionnaire to children’s party planner/parent
17	<ul style="list-style-type: none"> <li>Care requirements of materials/resources used</li> </ul>	Interview with food/textile technologist/children’s party planner/parent Trial of prototype

Brief 1 – Children’s party		
Investigation		Technique
18	<ul style="list-style-type: none"> <li>Influencing factors on final product</li> </ul>	Interview with food/textile technologist/children’s party planner/parent
19	<ul style="list-style-type: none"> <li>Safety in use</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer Literary/Internet search
20	<ul style="list-style-type: none"> <li>Facilities/resources/skills available to parents/children’s party planner</li> </ul>	Interview with food/textile technologist/parent/ party planner Questionnaire/survey parents
21	<ul style="list-style-type: none"> <li>Time available for manufacturing the product</li> </ul>	Interview with food/textile technologist/parent/ children’s party planner Questionnaire/survey parents

**Note:**

- The candidate **must** specify the term ‘expert’ if used
- A food/textile technologist could include a person working in food/textile product development or a Home Economics teacher

- Required Investigations**
- 1 school
  - 2 sports event
  - 3 selling

<b>Brief 2 – School sports event</b>		
<b>Investigation</b>		<b>Technique</b>
1	<ul style="list-style-type: none"> <li>Types of school sports event</li> </ul>	Interview with food/textile technologist/ appropriate teacher/sports co-ordinator Literary/Internet search
2	<ul style="list-style-type: none"> <li>Current range of products on sale at sports events</li> </ul>	Survey of retail outlets/sports events Interview with food/textile technologist/ appropriate teacher/sports co-ordinator
3	<ul style="list-style-type: none"> <li>Suitability for target group</li> </ul>	Interview with food/textile technologist/ appropriate teacher/sports co-ordinator Interview/questionnaire to target group
4	<ul style="list-style-type: none"> <li>Ideas for potential solutions</li> </ul>	Survey of retail outlets/sports events Literary/Internet/pattern search/recipe search Sensory testing/questionnaire/survey target group Interview with food/textile technologist/ appropriate teacher/sports co-ordinator Trial of prototype(s)
5	<ul style="list-style-type: none"> <li>Aesthetic appeal of potential solutions</li> </ul>	Sensory testing with target group/food/textile technologist/appropriate teacher/sports co- ordinator
6	<ul style="list-style-type: none"> <li>Likes and dislikes of target group</li> </ul>	Interview/questionnaire to target group/food/ textile technologist/appropriate teacher/sports co-ordinator
7	<ul style="list-style-type: none"> <li>Current trends</li> </ul>	Interview/questionnaire to target group Interview with food/textile technologist/ appropriate teacher/sports co-ordinator Survey of retail outlets/sporting events Literary/Internet search
8	<ul style="list-style-type: none"> <li>Facilities/resources/skills available to candidate</li> </ul>	Interview with food textile technologist Resources/equipment/skills checklist
9	<ul style="list-style-type: none"> <li>Skills necessary for manufacturing the product</li> </ul>	Interview with food/textile technologist Skills audit Recipe search/search of fabric construction books
10	<ul style="list-style-type: none"> <li>Hygiene/safety requirements for production</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer/sports co-ordinator Literary/Internet search
11	<ul style="list-style-type: none"> <li>Quality requirements of potential solutions</li> </ul>	Interview/sensory testing with food/textile technologist/EHO/Trading Standards Officer/ sports co-ordinator Trial of prototype
12	<ul style="list-style-type: none"> <li>Shelf life/durability of potential solutions</li> </ul>	Interview with food/textile technologist/EHO/ Trading Standards Officer Literary/Internet search
13	<ul style="list-style-type: none"> <li>Suitability for bulk production</li> </ul>	Interview with food/textile technologist
14	<ul style="list-style-type: none"> <li>Price range of similar products</li> </ul>	Interview with food/textile technologist/sports co-ordinator Survey of retail outlets/sports events
15	<ul style="list-style-type: none"> <li>Cost of potential components/solutions</li> </ul>	Costing exercise

Brief 2 – School sports event		
Investigation		Technique
16	<ul style="list-style-type: none"> <li>Budget of school</li> </ul>	Interview with food/textile technologist/sports co-ordinator
17	<ul style="list-style-type: none"> <li>Budget of target group/amount target group is prepared to pay</li> </ul>	Interview/questionnaire to target group Interview with food/textile technologist/sports co-ordinator
18	<ul style="list-style-type: none"> <li>Care requirements of materials/resources used</li> </ul>	Interview with food/textile technologist Trial of prototype(s)
19	<ul style="list-style-type: none"> <li>Influencing factors on final product</li> </ul>	Interview with food/textile technologist/sports co-ordinator/target group
20	<ul style="list-style-type: none"> <li>Safety in use</li> </ul>	Interview with food/textile technologist/EHO/Trading Standards Officer/sports co-ordinator Literary/Internet search
21	<ul style="list-style-type: none"> <li>Time available for manufacturing the product</li> </ul>	Interview with food/textile technologist

**Note:**

- The candidate **must** specify the term ‘expert’ if used
- A food/textile technologist could include a person working in food/textile product development or a Home Economics teacher

## **STEP 2 Total mark allocation – 15 marks**

### **2 : 1 Implement the overall plan for investigations – 12 marks**

The mark allocation for this area will be awarded holistically and will be based on candidates' performance in a series of investigations.

Candidates will be assessed on the results and conclusions from each investigation – see the marking criteria breakdown listed below.

**Teachers/lecturers must ensure candidates present the results and conclusions of each investigation on pages 7, 8 and 9 only**

Candidates using computer software to produce results eg bar charts or graphs must ensure that these are presented only on the pages allocated for this work ie pages 7, 8 and 9.

Candidates who present the results and conclusions of each investigation on more than one A4 sheet of paper will be penalised.

Candidates' findings should

- be brief, concise and easy to interpret
- show a link to the aim and purpose of the investigation

Results must be derived from the investigations and be based on facts and evidence.  
Conclusions must be based on **results obtained**.

#### **Marking Criteria**

- Holistic approach – marks must be briefly justified
- Results must be brief, concise and easy to interpret
- Results must show a link to the aim/purpose of the investigation
- Results must be derived from the investigations and based on facts and evidence
- Conclusions must be based on the results obtained.

For **each of three** investigations:

The candidate has done as they intended	<b>1 mark</b>
The investigation contains brief, concise and easy to interpret results	<b>1 mark</b>
Results are based on fact and relevant to brief	<b>1 mark</b>
Conclusion is based on results/shows progression	<b>1 mark</b>

**Total – 12 Marks**

**2 : 2      Derive a solution from the investigations – 3 marks**

**Generate one solution – 2 marks**

Candidates derive **one solution** which must be

- relevant to the needs of the project brief – **1 mark**
- based on the results and conclusions reached in the investigations – **1 mark**

**Brief description of the solution – 1 mark**

The solution should be described so it is able to be **visualised**.

Various methods may be used – written details, sketches, diagrams, labelled diagrams, storyboards – to ensure clarity.

**Total - 3 marks**

**Brief 1: Children's party**  
**Possible solutions**

Any food or textile item suitable for a children's party

**Brief 2: School sports event**  
**Possible solutions**

Any environmentally friendly food or textile item suitable for sale at a school sports event

### **STEP 3 Total mark allocation – 16 marks**

#### **3 : 1 Manufacture the chosen solution**

Candidates must complete the plan **before** starting to manufacture the solution.

Candidates will be penalised if the plan is written retrospectively.

##### **Identify and requisition resources – 3 marks**

Candidates who identify and requisition **all the main** resources will gain **3 marks**.

Candidates who requisition **most** of the main resources will gain **2 marks**.

Candidates who only requisition **some** main resources will gain **1 mark**.

Resources will depend on the chosen solution and may relate to food, textiles or packaging materials.

##### **Identify and requisition equipment – 3 marks**

Candidates who identify and requisition **all** main equipment will gain **3 marks**.

Candidates who identify and requisition **most** of the main equipment will gain **2 marks**.

Candidates who identify and requisition **some** of the main equipment will gain **1 mark**.

Equipment will depend on the chosen solution and may relate to equipment used in food or fabric activities.

##### **Draw up a sequence of work – 3 marks**

Candidates should show logical thinking when drawing up the sequence of work to manufacture the solution eg

- activities should be in the correct order to complete the solution
- longer activities started nearer the beginning of the sequence
- dovetailing of activities as appropriate.

Sequence of work is highly effective – **all** activities planned in correct order – **3 marks**.

Sequence of work is effective – **most** activities planned in the correct order – **2 marks**.

Sequence of work is satisfactory – **some** activities planned in the correct order, sufficient to allow the solution to be manufactured – **1 mark**.

### **Deployment of time (time plan) – 3 marks**

Candidates should make good use of time.

- Activities should be appropriately timed.
- Resources and equipment are used to make more effective use of time.

Highly effective time plan – **3 marks**.

Effective time plan – **2 marks**.

Satisfactory time plan – **1 mark**.

**Total – 12 marks**

**After completing the plan for manufacture, candidates should start to manufacture the solution.**

Candidates should be encouraged to make notes on page 14 of the proforma as they are carrying out the manufacturing process. Notes may be made on how manufacture is proceeding, any problems encountered and any changes/modifications made to the plan.

This work is not marked, but may prove useful to candidates when completing Step 4: 1 – Evaluation of the overall plan.

### **Photographic evidence**

Photographic evidence of the candidates' work must be attached to the proforma. If this evidence is not attached, marking must stop, and a note of explanation added to the marking sheet. This project must then be marked for the attention of the PA.

Although no marks are awarded for this area, **evidence must be provided** of the candidates' solution.

When a centre has no photographic evidence attached, but has a note of explanation, continue marking the project but again refer this project to the PA.

### **Two photographs are required:**

- one should provide evidence of the solution **during manufacture**.
- the other should provide evidence of the **completed** solution.

Although the quality of the photographs is not important, they **must** give an indication of the type of work being carried out and completed by the candidate.



### **3 : 2      Devise a test for the manufactured solution**

#### **Present one test with appropriate technique.**

Candidates should present **one** appropriate test with **one** appropriate technique.

Candidates who do not identify an appropriate test cannot be awarded any marks.

Technique must be appropriate to the test, allowing candidates to collect relevant data/information.

**Total – 1 mark**

#### **Briefs 1 & 2**

<b>Test</b>	<b>Technique</b>
1. Examination by a specified expert eg food/textile technologist/children's party planner/sports co-ordinator/EHO/ Trading Standards Officer	Interview/questionnaire with specified expert Sensory evaluation with specified expert
2. Examination by target group	Interview/questionnaire Sensory evaluation Observational checklist Wearer/user trial by target group
3. Costing exercise	Costing exercise confirmed by interview with expert, eg food/textile technologist/ appropriate teacher
4. Nutritional analysis	Literary/Internet/CD search & interview with food/textile technologist/dietician

When the candidate uses the term 'expert', it must be specified, eg a food technologist. This could be included in either the test or the technique.

**3 : 3      Implement the test for the manufactured solution**

**Brief, concise and easy to interpret results – 1 mark**

Results should be derived from the test and be based on facts and evidence.

Test results should be presented in a format which is

- brief
- concise
- easy to interpret.

**Factual and relevant results – 1 mark**

Results should be

- derived from the investigation
- based on facts and evidence

**Brief conclusion based on results – 1 mark**

Candidates will be marked on their ability to draw meaningful and accurate conclusions from the results of the test.

Conclusions must be

- factually correct
- based on the evidence provided by the results.

**Candidates must not offer personal opinions.**

**Total – 3 marks**

#### **STEP 4 Total mark allocation – 6 marks**

##### **4 : 1 Evaluate the chosen solution**

###### **Evaluation against the specification points – 3 marks**

Candidates must rewrite the specification points briefly in the appropriate column.

Candidates must evaluate the solution against **each** specification point. The results of the testing can be used here.

Candidates will be penalised for a lack of accuracy and detail within the explanation.

Page 17 of the pro forma should be used for the evaluation against the specification.

- |   |                |
|---|----------------|
| • All specification points are evaluated                    | <b>3 marks</b> |
| • ½ or more, but not all specification points are evaluated | <b>2 marks</b> |
| • Less than ½ the specification points are evaluated        | <b>1 mark</b>  |
| • No evaluation is provided                                 | <b>0 marks</b> |

###### **Evaluation of the overall plan – 3 marks**

**Candidate will evaluate the overall plan** (Steps 1 – 3 of the Technological Project).

The following criteria should be used in the review

- time
- resources
- skills and abilities.

**No marks will be awarded to candidates who do not use these criteria in their review.**

The evaluation, which may include adaptations/modifications, **must be based on evidence** which can be found within the candidate's Technological Project pro forma.

Candidates should be encouraged to give reasons for any statements they make in the evaluation.

Candidates may find it helpful to use some of the headings for Steps 1 – 3 in the pro forma for the evaluation.

Page 18 of the pro forma should be used for the evaluation of the overall plan.

**Total – 6 marks**

### Technological Project Intermediate 2 Summary Mark Allocation

Step	Mark Breakdown	Allocation
<b>1 . 1</b>	<b>Identification of the key points with explanation</b>  Identify the key points Key points plus basic and accurate explanation Key points plus detailed and accurate explanation	<b>2 marks</b> <b>2 marks</b> <b>1 mark</b> <b>Total mark allocation 5</b>
<b>1 . 2</b>	<b>Draw up appropriate criteria for a specification</b>  Allow for a range of solutions Contain more detail than the brief Be written in measurable terms	<b>1 mark</b> <b>1 mark</b> <b>2 marks</b> <b>Total mark allocation 4</b>
<b>1 . 3</b>	<b>Devise an overall plan for investigations</b>  List a range of relevant investigations Identify techniques to be used	<b>2 marks</b> <b>2 marks</b> <b>Total mark allocation 4</b>
<b>Total mark allocation for Step 1 – 13 marks</b>		
<b>2 . 1</b>	<b>Implement the overall plan for investigations</b>  Holistic approach	<b>Total mark allocation 12</b>
<b>2 . 2</b>	<b>Derive a solution</b>  From the investigation generate one solution Brief description of the solution	<b>2 marks</b> <b>1 mark</b> <b>Total mark allocation 3</b>
<b>Total mark allocation for Step 2 – 15 marks</b>		

Step	Mark Breakdown	Allocation
<b>3 . 1</b>	<b>Manufacture the chosen solution</b>  Requisitions all main resources Requisitions most main resources Requisitions some main resources  Requisitions all main equipment Requisitions most main equipment Requisitions some main equipment  Highly effective sequence of work Effective sequence of work Satisfactory sequence of work  Highly effective deployment of time (time plan) Effective deployment of time (time plan) Satisfactory deployment of time (time plan)	<b>3 marks</b> <b>2 marks</b> <b>1 mark</b> <b>Total mark allocation 3</b>  <b>3 marks</b> <b>2 marks</b> <b>1 mark</b> <b>Total mark allocation 3</b>  <b>3 marks</b> <b>2 marks</b> <b>1 mark</b> <b>Total mark allocation 3</b>  <b>3 marks</b> <b>2 marks</b> <b>1 mark</b> <b>Total mark allocation 3</b>
<b>3 . 2</b>	<b>Devise a test for the manufactured solution</b>  One test presented with appropriate technique identified	<b>1 mark</b> <b>Total mark allocation 1</b>
<b>3 . 3</b>	<b>Implement the test for the manufactured solution</b>  Brief, concise and easy to interpret results Results based on fact and relevant Brief conclusion based on results	<b>1 mark</b> <b>1 mark</b> <b>1 mark</b> <b>Total mark allocation 3</b>
<b>Total mark allocation for Step 3 – 16 marks</b>		
<b>4 . 1</b>	<b>Evaluate the chosen solution</b>  Evaluation of specification points  Evaluation of overall plan against set criteria: time/resources/ skills and abilities	<b>3 marks</b> <b>Total mark allocation 3</b>  <b>3 marks</b> <b>Total mark allocation 3</b>
<b>Total mark allocation for Step 4 – 6 marks</b>		

**Total 50 marks available**

[END OF MARKING INSTRUCTIONS]