

**NATIONAL QUALIFICATIONS 2005**

**HOME ECONOMICS**

**All Contexts – Health and Food Technology  
Fashion and Textile Technology  
Lifestyle and Consumer Technology**

**HIGHER**

**Notes of guidance for Candidates  
on the  
Technological Project**

## Introduction

To gain the award for this course you must pass the external course assessment and all the Outcomes for the two Units of the course:

- ◆ Resource Management.
- ◆ Consumer Studies.

The external assessment consists of a Question Paper and a Technological Project. These notes offer guidance on the **Technological Project**, for which a total of 70 marks are available.

The time allocated for the Technological Project is 20 hours. You may undertake research and investigation outwith the school/centre but all the work which you record in the Technological Project pro forma issued by SQA must be completed under supervision in your school/centre.

**All the work of the Technological Project should be your own.**

Your teacher/lecturer may assist you by giving:

- ◆ Advice on sources of information including persons, agencies or establishments which may be helpful.
- ◆ Assistance with planning your time to meet deadlines.
- ◆ Advice on how suitable and practical your ideas are as you proceed through the Technological Project.

The following table gives you information about the time and mark allocation given to the four steps involved in the Technological Project.

Step	Total Mark Allocation For Each Step
1	22
2	15
3	22
4	11

## Technological Project pro forma

Each year SQA will issue two project briefs — you should choose **one**.

The Technological Project pro forma is issued by SQA and you should use it to record your work. It should be tidy and easy to read. Your work can be hand written, typed, produced on a word processor or reflect a combination of these methods. **Use only the number of pages within the Technological Project pro forma.** Pages 25 and 26 are provided at the back of the pro forma should you require more space to continue any of your responses. Your written work must be clear and concise.

When you have completed the Technological Project it will be sent to SQA to be marked.

The following information will guide you through all four steps in the Technological Project.

**Before you start — read both the Technological Project briefs issued by SQA and choose the one you wish to do.**

**Write the brief, in full, on page 2 of the Technological Project pro forma.**

**STEP 1            Total mark allocation: 22 Marks**

Pages 3-8

**STEP 1 : 1       6 marks available**

Pages 3-4

- ◆ **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.**

**FIRST**

- ◆ Read the Technological Project brief which you wrote on page 2 of the pro forma.
- ◆ Consider which words are important and underline them.
- ◆ These are the key points of the Technological Project brief.
- ◆ You should try to identify all the key points.
- ◆ You may be able to think of one or two additional key points.
- ◆ List them on pages 3 and 4 of the pro forma and remember to number each key point.

**NEXT**

- ◆ Explain **each** of the key points you have listed.
- ◆ Make sure each explanation relates back to the Technological Project brief.
- ◆ Give accurate explanations.
- ◆ Give as much relevant detail as you can — this will gain you more marks.

**STEP 1 : 2    10 marks available**

Pages 5-6

◆ **Draw up appropriate criteria for a specification.**

A specification is a set of criteria that your solution must meet to successfully solve the Technological Project brief.

The criteria must be valid and relevant to the Technological Project brief.

Drawing up a specification is an important area of your work. Your specification should allow for a range of solutions to be developed.

Complete the 4 columns on the page as described below.

◆ **Specification Points** — these must:

- be relevant to the Technological Project brief — check back to page 2
- link to the key points you listed on pages 3 and 4. Do not however, just rewrite your key points — more explanation is needed
- be numbered

◆ **Explanations of Specification Point** — should:

- take account of the needs of the Technological Project brief and the key points
- be well explained. You should try to give as much detail as you can — this will gain you more marks

◆ **Links to Key Points.**

- check your specification points against the key points on pages 3 and 4. You should find that each specification point is linked to one or more of the key points

◆ **How can it be measured?**

- each specification point must be able to be measured or tested in some way, eg by checking with a **named/specified** expert, costing exercise
- you should have a **minimum of 5** specification points

**STEP 1 : 3      6 marks available**

Pages 7–8

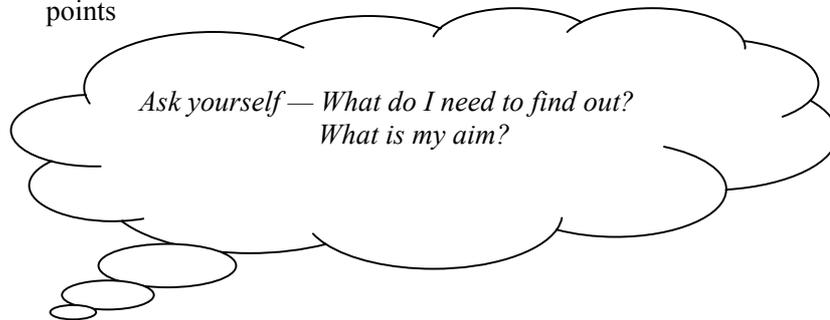
◆ **Devise an overall plan for investigations.**

As part of your overall plan you have to:

- **make a list of investigations**

Your investigations should:

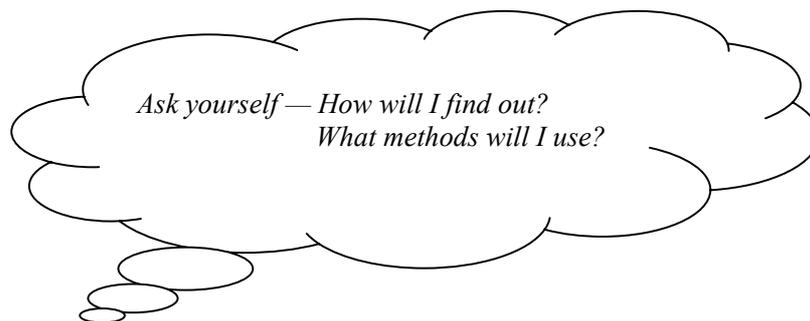
- be numbered
- have a clear purpose or aim
- link to the key points of the Technological Project brief and the specification points



For example:

- gaining new knowledge
- increasing present knowledge
- looking at existing products that meet the needs of the brief
- availability and suitability of resources
- costs involved

◆ **Identify the techniques to be used in the investigations.**



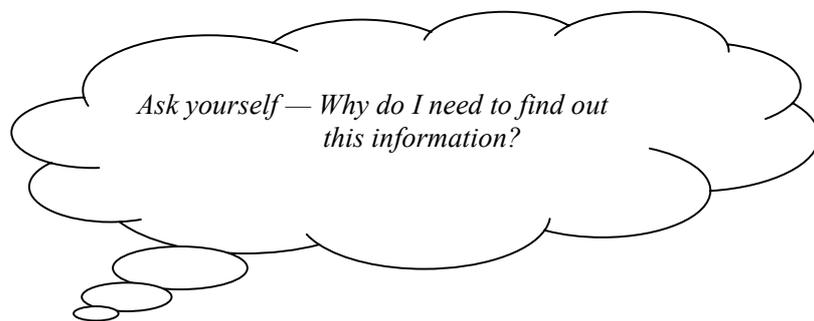
You should choose techniques for each investigation which:

- are appropriate
- help you gain information, and
- give accurate and valid results

For example:

- letter writing
- interviews with a named/specified expert
- internet/book research
- questionnaires (If you intend to use this method then you should issue 20 copies in order to gain valid results)

◆ **Justify** each of the investigations you have listed.



Justification should:

- link to the investigation
- link to the Project Brief and specification points
- be well thought out and clear

From your investigations on page 7 choose the ones you think are the most important in relation to the needs of the Technological Project brief. List these on page 8. These are the investigations you will carry out in Step 2.

Depending on the type of techniques you have chosen a **maximum of three** investigations should be carried out in the time you have available. You may find you are able to combine two or more investigations together using one technique, eg a questionnaire could gather information for a number of investigations and could also save you time.

Although you will not gain any marks for this area, it is important your chosen investigations should be:

- ◆ Relevant to the Technological Project brief.
- ◆ Able to be completed in the time available.

**STEP 2**      **Total mark allocation: 15 marks**

Pages 8-12

**STEP 2 : 1**      **12 marks available**

Pages 9–11

◆ **Implement the overall plan for investigations.**

The investigations which you identified on page 8 should now be carried out.

For each investigation you should:

◆ **Record the results.**

◆ **Draw conclusions from the results.**

Each investigation should be recorded **on pages 9–11**.

Your work is recorded on A4 size paper, this means your findings must be in a format which is:

- brief
- concise
- easy to interpret

For each of your investigations you must make sure:

- The results are based on facts/evidence discovered during the investigations.
- The conclusions are based on the results of the investigations. **Personal opinions must not be offered.**

**NOTE:** If you are using computer software to produce your results, eg graphs, charts, you must ensure they can be presented on one side of A4 paper.

**STEP 2 : 2      3 marks available**

Page 12

◆ **Derive a solution from the investigations.**

Using the conclusions of your investigations come up with **one** solution which will meet the needs of the Technological Project brief.

◆ **Describe your solution in detail.**

It is important that your description is clear so that the person marking your work can ‘**visualise**’ your solution. To help you do this you could use **one or more** of the following methods:

- written details
- design sketches
- diagrams
- labelled diagrams
- story boards

**STEP 3**      **Total mark allocation: 22 marks**

Pages 13-20

**STEP 3 : 1**      **10 marks available**

Pages 13-16

◆ **Manufacture the chosen solution.**

Draw up a plan for the manufacture of your solution.

This plan **must** be completed **before** you start manufacture.

The plan must include:

- a sequence of work
- All the resources and equipment you will need to make your solution

◆ **Planned Sequence of work** (page 13).

Your sequence of work must describe **clearly** how you **intend** to make best of use of your time. You will have to consider:

- preparation and manufacturing time
- your practical skills
- sensible and logical ordering of stages of your work
- use of equipment which may save you time

Your sequence of work should be in a form that you think is appropriate, eg as a table, chart, flow chart. You **must show planned dates and times** of all stages involved in the manufacture of your solution.

◆ **Resources and equipment** (page 14).

All resources and equipment needed to manufacture your solution must be listed. This may include — foods, textiles, packaging materials, equipment, electrical equipment. To gain full marks you must not miss any out.

**When you have finished these pages, you should start to manufacture your solution, following your sequence of work drawn up on page 13.**

**Page 15 is for your own use** and will not be marked. It should be used to make notes whilst you are manufacturing your solution. You may wish to make notes about:

- ◆ How the stages of manufacture are progressing.
- ◆ The resources/equipment you are using.
- ◆ Any changes/modifications you may wish to make to the plan.

These notes may be useful to you when completing Step 4 : 2 (Review the Technological Project).

Photographic evidence of your solution must be provided on page 16.

Photographs should be taken:

- ◆ **During** manufacture.
- ◆ **After** manufacture.

Both photographs must be fixed onto the correct space on your page.

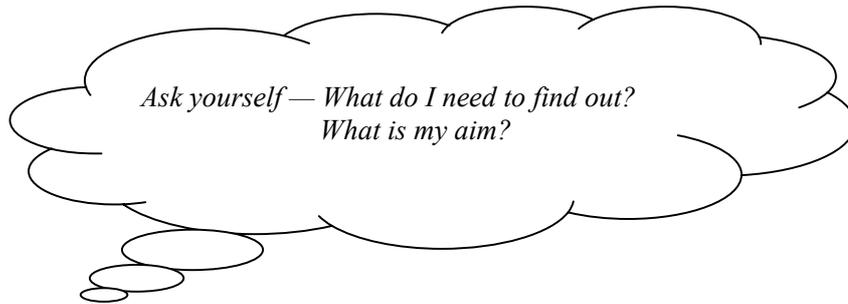
The electronic version of the pro forma has been designed to allow for the insertion of digital photographs.

**STEP 3 : 2    3 marks awarded**

Page 17

- ◆ Devise two tests for the manufactured solution.

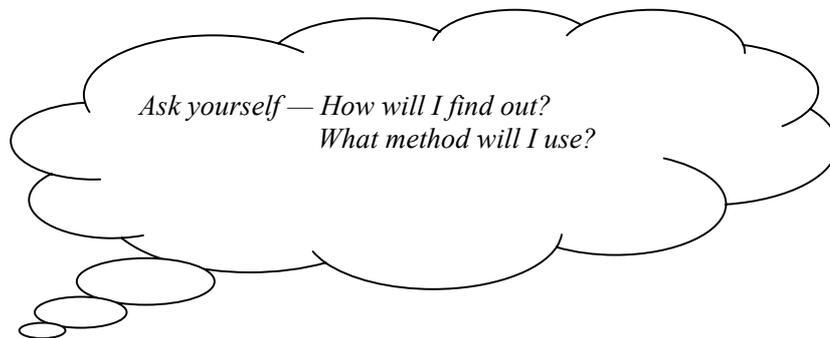
- ◆ **You must decide on two tests** to carry out on your manufactured solution.



Remember your tests should:

- have a clear purpose and aim
- link to the specification points

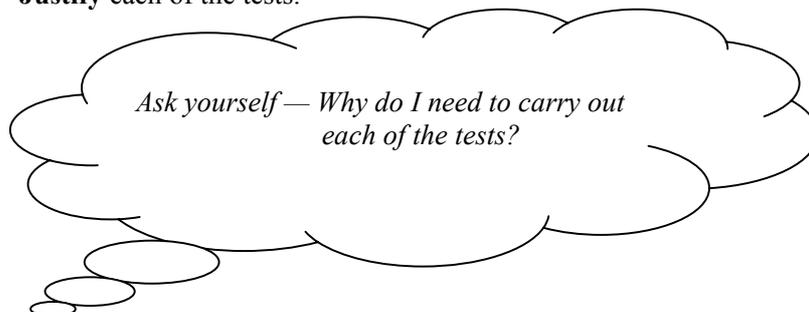
- ◆ **Identify techniques** to be used.



Techniques used must be appropriate to the test.

Two different testing techniques must be used, eg sensory, evaluation, observation, interview, questionnaire.

- ◆ **Justify** each of the tests.



Your justification should:

- link to the test
- link to the Technological Project brief and specification points
- be well thought out and clear

**Now carry out each of the tests.**

**STEP 3 : 3      9 marks available**

Page 18–20

◆ **Implement the tests for the manufactured solution.**

For each test you should:

- record the results
- draw conclusions from the results

Your work must be presented on pages 19 and 20. This means your findings must be in a format which is:

- brief
- concise
- easy to interpret

For each of your tests you must make sure:

- a different technique is used
- the results are based on facts/evidence discovered during the testing
- the conclusions are based on the results of the testing. **Personal opinions must not be offered**

**NOTE:** If you are using computer software to produce your results, eg graphs, charts, you must ensure these are presented on pages 19 and 20 only with the rest of your work.

**STEP 4**      **Total mark allocation: 11 marks**

Pages 21-24

**STEP 4 : 1**      Pages 21-22      **3 marks available**

◆ **Evaluate the chosen solution.**

You should now evaluate your solution against:

◆ **The specification points — using the results of the testing where appropriate.**

You will need to refer to your specification in Step 1 : 2 pages 5 and 6 and to your test results and conclusions on pages 19 and 20 before you start.

You must briefly rewrite the specification points in the appropriate column — this will save you from continually looking back.

In your evaluation you should:

- ◆ Give accurate explanations.
- ◆ Give as much relevant details as you can — this will gain more marks.

If you are using the results of testing in your evaluation, you should identify the test number in your response.

**STEP 4 : 2      8 marks available**

Pages 23-24

◆ **Review the Technological Project.**

You now have to review Steps 1-3 of the Technological Project.

- ◆ Look at all the main steps of the Technological Project from start to finish. These steps are listed on page 23 of the Technological Project pro forma and you should work your way through each of them in turn.
- ◆ Review their success or otherwise in relation to any of the following three criteria.
  - **time**
  - **resources**
  - **skills and abilities**

It is important that you use these three criteria in your review — otherwise you will lose marks. You must also try to give reasons or explanations within the review.

- ◆ Your review must be based on evidence which can be found within the Technological Project pro forma.
- ◆ Use any notes you made on page 15 to assist you with your review of Step 3 : 1 Manufacture the chosen solution.
- ◆ Any adaptations/changes to the plan should be explained.

Use pages 23 to 24 for your review.