

Unit R106 – Product analysis and research

Research Methods for Product Analysis

Instructions and answers for teachers

These instructions should accompany the OCR resource ‘Research Methods for Product Analysis’ activity which supports OCR Cambridge Nationals in Engineering.



The Activity:

This resource comprises of 2 tasks.



This activity offers an opportunity for English skills development.



This activity offers an opportunity for maths skills development.

Associated materials:

‘Research Methods for Product Analysis’ activity sheet

Suggested timings:

Task 1 and 2: 1 hour

Learning Outcome 2: Be able to research existing products

Task 1:

In this activity, learners are required to categorise the research methods and sources given into primary research methods and secondary sources.

Before commencing the task, learners will require a teacher introduction to primary methods and secondary sources. The internet or other methods might be used by learners in order to complete the activity.

Primary research consists of original primary data sources collected by the researcher while research of **secondary sources** involves the summary, collation and/or synthesis of existing information. Both methods might be used when researching existing products in order to improve design or to create new designs.

The solution to the problem is shown below.

Primary research methods	Secondary sources
<ul style="list-style-type: none"> • Questionnaires • Market research • Experiments • Observations or physical analysis • Interviews • Surveys • Focus Groups 	<ul style="list-style-type: none"> • Books • Journals • Magazines • Pamphlets • Maintenance Manuals • Instruction Manuals • Internet • Television programme • Radio programme • Images • Drawings

It should be noted that some sources of information might be considered primary or secondary eg British Standards and Government Legislation, although printed or internet-based are often considered a primary source of information. This activity might be extended to include a discussion about such sources.

Task 2:

For Task 2 learners are required to undertake some primary research by developing three questions to ask class friends about the mobile phone in order to improve design.



These might include questions about finish, aesthetics, functions and features, battery life, size, weight etc.

The purpose of the activity is for learners to think carefully about the questions they ask, and to anticipate the range of responses they might receive.

Although not part of the task, the teacher might extend the activity for learners to develop a more comprehensive set of questions or even a questionnaire. Analysis of responses and presentation of findings might also form an extension of the activity.

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