

R105 – Design briefs, designs specifications and user requirements

Identifying Design Needs: Information Informing Design

Instructions and answers for teachers

These instructions should accompany the OCR resource 'Identifying Design Needs: Information Informing Design' activity which supports OCR Cambridge Nationals in Engineering.



The Activity:

This resource comprises of 1 task.



This activity offers an opportunity for English skills development.



This activity offers an opportunity for maths skills development.

Associated materials:

'Identifying Design Needs: Information Informing Design' activity sheet

Suggested timings:

Task 1: 1 hour

Learning Outcome 1: Understanding the design cycle and the relationship between design briefs and design specifications

Task 1:

For this task learners are required to undertake a comparison between five portable players and tabulate their findings. Learners will require access to suitable data to undertake the task – or might use the internet to undertake their research. The teacher might give students a choice of music players, or specify which five should be researched. Further or alternative features may also be compared. The activity can be undertaken individually, in pairs or in groups.

The table that learner’s might produce may look similar to this (scoring each of the features from 1 to 10 with 1 being poor and 10 being excellent):

	Player 1	Player 2	Player 3	Player 4	Player 5
Feature					
Size:	2	3	5	2	9
Weight:	8	2	3	6	5
Ease of Use:	9	3	6	5	2
Appearance:	5	4	7	2	4
Battery Life:	3	4	7	4	2
Total	27	16	28	19	22

Music Player 3 scores highest.

Other features that learners might add to the comparison include cost, materials and production methods (if this information is obtainable).

Learners are asked what problems there are with using this method of comparing competitors' products.

Possible answers might include:

- The method is subjective in terms of scoring each feature from 1 to 10.
- The method might not be truly accurate a reliable.
- Better (more objective) results could be achieved if the sample or group size of those scoring the features is increased.
- The client might specify a certain key feature such as battery life being important – meaning that only music players with a high battery life should be considered (ie Music Player 1 scores second, but has poor battery life).

The teacher might extend this activity into a focus group or survey activity thereby giving learners the opportunity to explore a number of different research methods used when devising product briefs.

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OCR Resources: *the small print*

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