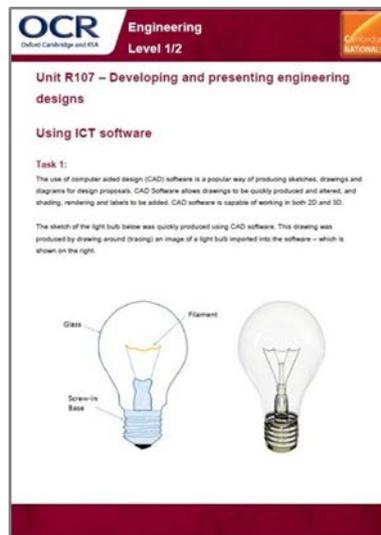


Unit R107 – Developing and presenting engineering designs

Using ICT software

Instructions and answers for teachers

These instructions should accompany the OCR resource 'Using ICT software' 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:

'Using ICT software' activity sheet

Suggested timings:

Task 1: 1 - 2 hours

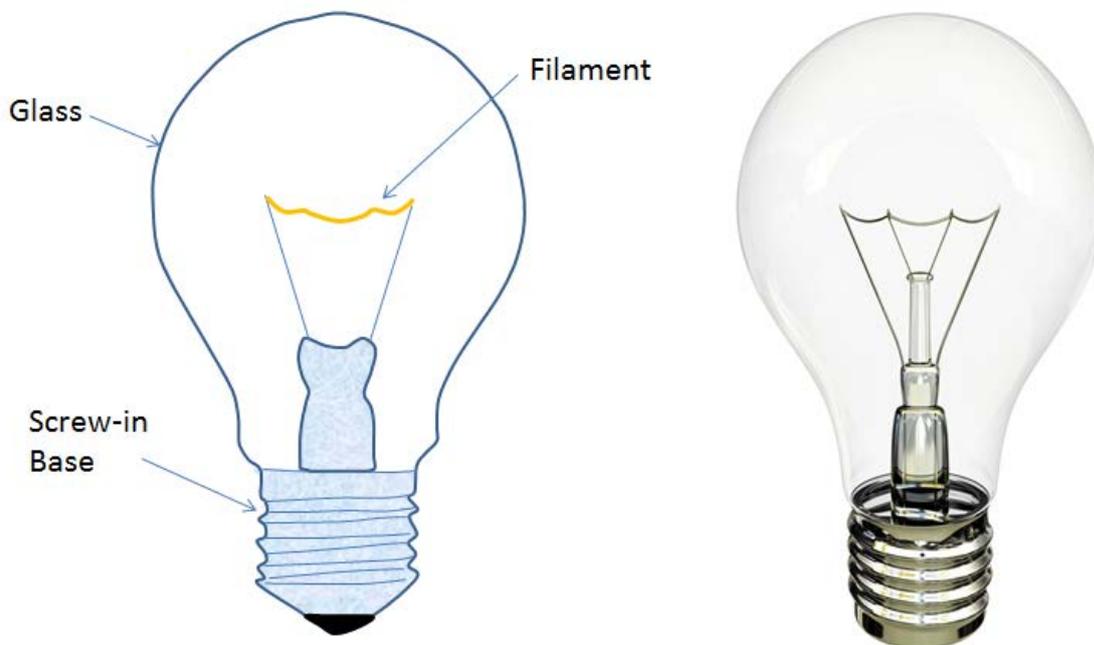
Learning Outcome 3: Be able to generate design proposals using a range of techniques

Task 1:

In this activity learners have the opportunity to practice using CAD software to produce sketches and drawings for design proposals.

Learners will require access to suitable software and teacher instruction on its use in order to complete the activity successfully.

The example drawing shown in the activity was produced quickly using CAD software by tracing around an imported image of a light bulb. It was produced using lines, curves, enclosed shapes (with texturing), lines with arrows and text.



The teacher may wish learners to use software to replicate, develop and enhance drawings already produced by hand sketching for this activity.

Alternative software such as Sketchup (www.sketchup.com) could be used for the activity. Sketchup Make is freely available for educational use and is relatively simple to use.

The purpose of the activity is to extend freehand drawing skills into the use of ICT to develop sketches and drawings for design proposals. Formal drawing skills form a later part of this unit and so developing fuller technical drawing skills might not be significant at this stage.

Teachers might encourage learners to be creative in modifying their drawings, and to include shading, rendering and labelling to communicate the drawing more effectively.

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OCR Resources: *the small print*

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