

Year 9 Homework 1

Materials and their properties

Standard Components: Electrical components

On A4 paper explain why **standard components** are used in manufacturing products.

On the same page draw or print pictures of the following electrical components used on your Night Light PCB (Printed Circuit Board) and explain the function of each component.

- Resistor
- Transistor
- Light emitting diode
- Light dependent resistor
- Switch

Year 9 Homework 2

Approaches to Designing

Ecological, Environmental and Social Issues: The 6R's

On A4 paper define the meaning of each of the 6R's.

- Re use
- Recycle
- Refuse
- Rethink
- Reduce
- Repair

Year 9 Homework 3

Approaches to Designing

The Work of Others: Designers

On A4 paper. Give the names of **two** past designers from the list below. For each, give the name of a design that they have created and explain the influence of this design. It might help to use pictures with your written answers.

- Charles Rennie Mackintosh
- Gerrit Rietveld
- Raymond Templier
- Harry Beck
- Coco Chanel
- Mary Quant
- William Morris

Year 9 Homework 4

Designing Products: Briefs and Specifications

On A4 paper explain the following design terms and give examples.

- Design Brief
- Design Specification
- Manufacturing Specification

