

Year 11- 12 Product Design Summer Tasks

- Fusion 360 is a CAD package that Y12 students need/ should download at home, it is free and links are provided.
- Secondly there are a series of introductory YouTube videos to assist students, step by step, to become confident on the program. This will be used a lot in Year 12. <https://www.youtube.com/watch?v=JHqs8O4eL8A>
- Terminology document is essential reading for all students starting the course. It contains activities and clips to explain in detail course information. <https://www.ocr.org.uk/Images/400187-terminology-guide.pdf>

Task 1: Do you know your materials? Where they come from and How they are made?

- In Year 12 whilst studying A Level Product Design you will investigate polymers, woods and metals in depth.
- We would like you to collect and identifying as many different materials from the list below as possible. We are asking that you display them via a sketchbook format.
- Samples of the real material would be great, but you could also use sketches and images to convey them.
- With each material we would like you to highlight its classification (e.g. thermos forming or thermosetting, Ferrous or Non Ferrous), its mechanical properties, how it is made, as well as some typical uses.

Materials List:

Metals	Woods	Polymers
<ul style="list-style-type: none">• Aluminium• Copper• Zinc• Silver• Gold• Titanium• Tin• Low carbon steel• Medium carbon steel• Cast iron• Stainless steel• High speed steel• Die steel• Brass• Pewter	<ul style="list-style-type: none">• Oak• Ash• Mahogany• Teak• Birch• Beech• Pine• Spruce• Larch• Cedar• Plywood• Marine plywood• Flexi ply• Chipboard• MDF	<ul style="list-style-type: none">• Low density polyethylene LDPE• High density polyethylene HDPE• Polypropylene PP• High impact polystyrene HIPS• Acrylonitrile butadiene styrene ABS• Polymethacrylate PMMA• Nylon• Rigid polyvinyl chloride uPVC• Flexible polyvinyl chloride PVC• Urea formaldehyde UF• Melamine formaldehyde MF• Polyester resin• Epoxy resin

Task 2: Designer Research:

In Year 12 whilst studying A Level Product Design you will investigate designers and their work

Add to your sketch book by looking at the following designers:

- What makes their designs iconic?
- Which design movements do they belong to?
- Think about how design has changed over time?

Designers
<ul style="list-style-type: none">• Marianne Brandt• Marc Newson• Margret Calvert• Dieter Rams• Charles and Ray Eames• Phillipe Starck• James Dyson• Sonia Delaunay