

Product Design Y12 Summer Transition Work



Product Design is a subject that requires you to be able to research, design (sketching), develop and model (both in prototyping and 3D Computer Aided Design CAD) and test and evaluate. We also have an extensive range of theory topics that you will need to study in order to succeed in both the coursework (50%) and the written exam (50%). Below is a set of tasks that will give you a head start and will also help you get some of the software/sketching training out of the way so we can make the next two years as simple and as focused as possible. Any questions about any of the tasks please do not hesitate to email me on <mailto:HBishop@carshaltonboys.org>. More course info, example folders, project photos, video clips and theory resources are on the A Level website <https://sites.google.com/a/cbsc.co.uk/cbsc-design-technology/home/a-level-product-design/sixth-form-d-t>

- 1) **Download and install SolidWorks at home.** All instructions can be found here:
 - <https://sites.google.com/a/cbsc.co.uk/cbsc-design-technology/home/key-stage-4-d-t/gcse-product-design> (scroll to the bottom of the page and follow the instructions) **NOTE: this will not work on a Mac. See below for alternatives.**
- 2) **Work through a number of SolidWorks tutorials.** SolidWorks (or any similar software) takes a while to learn and you MUST practice it. Some excellent tutorials are available here:
 - <https://www.youtube.com/user/vertanux1>

NOTE: If you have a Mac, or you have not previously been a CBSC student, please make an account with Onshape and practice your 3D CAD skills using this platform. You can use it on Mac/PC/iPad/Tablet devices and they have their own YouTube channel that you can use to help you practice. **Onshape link:** <https://www.onshape.com/edu>

Produce a minimum of 3 completed models and print screen, copy and paste into a Word Document OR PowerPoint (or any other suitable platform) and bring a printed copy to your first Product Design lesson in September

- 3) **We would also like you to practice ‘product design sketches’** as this is also a skill that takes time to improve and nurture. Use the following YouTube channels to help you practice but feel free to find some of your own:
 - Product Tank : <https://www.youtube.com/user/producttank>
 - Sketch-A-Day (Spencer Nugent) : <https://www.youtube.com/user/sketchadaydotcom>

Please bring a minimum of 5 COMPLETED sketches to your first Product Design lesson in September – ideally these would be A3, however we will accept A4

We would also like you to watch a few videos that relate to some of the theory topics you will be covering during your Product Design A Level. Some of the information may also help you with our coursework.

- 4) **New Emerging Technology:** Watch the weekly Tech news on BBC – BBC Click (20 -30 minute weekly tech news on a Saturday morning and also on iPlayer)
<http://www.bbc.co.uk/programmes/b006m9ry>
- 5) **Materials and Manufacturing:** How it’s Made Video (lots on YouTube)
https://www.youtube.com/channel/UCSDPBdFC_g3UHFwB0JAKIMA
- 6) **Manufacturing:** Megafactories documentaries (lots on YouTube)
https://www.youtube.com/watch?v=Tvh_brqMJgU
- 7) **Sustainability:** Before the Flood Documentary (available on YouTube)
<https://www.youtube.com/watch?v=ZFmVRsQho4Y&t=2456s>