

Dear Parents/ Carers,

I am writing to inform you of some upcoming deadlines for the year 10 Engineering Design students. Students are making fantastic progress on their coursework but the deadline for this work is fast approaching, and I wanted to share with you some key information to ensure all students achieve the success they deserve.

**R040- Design, modelling, and evaluation**

All students will submit coursework for unit R040 this year for the Engineering Design course. The final deadline for this will be the **7<sup>th</sup> May**. However, as you can see from the **16 week countdown** there is still a lot of work to complete. This unit consists of 6 individual tasks, which each have their own separate deadline highlighted on the countdown in this letter. We have completed Task 1 and part way through task 2. Students now have the CAD drawing, physical prototype and evaluation to complete.

**It is vital that students work on their coursework every week as part of their homework.** All tasks for this unit will be set on TEAMS. Students will be able to access this from home using a laptop or PC device. Students can use Microsoft office and all work will be completed on Powerpoint.

**Coursework drop down days:**

To assist and support our Engineering students further, we will also have 2 mornings where students will have further time in a PC room to complete and type up their coursework. These dates will be confirmed in due course.

**After school intervention:**

Students are more than welcome to stay after school on any day of the week to complete their coursework. We have several ICT rooms available for coursework completion and CAD work. **Tuesday will be the official year 10 after school intervention evening in B8.** Students can stay until 5pm where they will get advice on their coursework and have the choice of either completing coursework or completing their CAD drawings.

Furthermore, all students have free access to the Fusion 360 CAD software from home. This is web based and as a result students can therefore work on their CAD drawings from home. They just need a PC or laptop.

**Half term intervention:**

I will also offer half term intervention in February and April half term. These days will be confirmed in due course; however, it is strongly advised that students attend these valuable sessions to work on their CAD drawings and designs.

Students will then complete unit R039 and R038 in year 11, with R038 being their final exam and R039 being a coursework module.

Finally, thank you for your support, I know how difficult it can be to encourage students to complete coursework at home, especially having two boys of my own! If you would like to discuss any aspect of the content of this letter, please do not hesitate to contact me by email, [rsmith@suthersschool.co.uk](mailto:rsmith@suthersschool.co.uk) or simply call and leave a message with our reception team.

Yours sincerely,

Mr Smith

Head of Department for Technology

Associate School Leader

## 16 Week – coursework countdown (Unit R040)

Week	Week commencing	Single lesson	Double lesson	Independent learning
1	9 <sup>th</sup> Jan	<b>Task 2: Product disassembly-</b> Photographic diary evidence of disassembly of lamp	Risk assessment	DFMA- Design For Manufacturing assembly
2	15 <sup>th</sup> Jan	Photographic diary evidence of disassembly of lamp	Maintenance considerations of the lamp during use	6Rs- Sustainability
3	22 <sup>nd</sup> Jan	<b>Task 3: CAD Modelling Fusion 360-</b> Presentation- testing stress	Fusion 360- Justification of materials for the lamp	Different types of plastics- symbols. recycling
4	29 <sup>th</sup> Jan	Fusion 360- Presentation- testing stress	Fusion 360	
5	5 <sup>th</sup> Feb	<b>Task 2 Deadline!- Disassembly</b>		<b>Mock exam</b>
<b>Half Term intervention- CAD/ Coursework catch up</b>				
6	19 <sup>th</sup> Feb	Fusion 360- Presentation drawing – different views	Annotate CAD diary	
7	26 <sup>th</sup> Feb	<b>Task 4-Physical modelling Planning.</b> Gantt Chart	Manufacturing plan, tools, materials, time, H&S	
8	4 <sup>th</sup> March	Risk Assessment for practical	Cutting list- start practical	
9	11 <sup>th</sup> March		Tools	
10	18 <sup>th</sup> March	<b>Task 5 prototype making-</b> Manufacture lamp	Manufacture lamp	Manufacture lamp
11	25 <sup>th</sup> March	Manufacturing diary	Manufacture lamp	Health & Safety
<b>Half Term intervention</b>				
12	15 <sup>th</sup> Apr	Manufacturing diary	Manufacture lamp	
13	22 <sup>nd</sup> Apr	Specification comparison evaluation <b>Task 5 Deadline!- prototype</b>	Test and evaluate, skills evaluation	Quality Assurance
14	29 <sup>th</sup> Apr	Design improvements	Design improvements Survey	Primary research - survey
15	7 <sup>th</sup> May	<b>Task 6 Deadline – Evaluation/ improvements</b>		
16	13 <sup>th</sup> May	Coursework uplift/ improvements		
	20 <sup>th</sup> May	<b>Intro to R039</b>	Drawing/ sketching skills- Isometric	
	3 <sup>rd</sup> Jun	Fusion 360- Product modelling	Oblique sketching skills	
	10 <sup>th</sup> Jun	<b>Nottingham University trip- Advanced Manufacturing Centre</b>		
	17 <sup>th</sup> Jun	Fusion 360- Product modelling	2 point perspective	
	24 <sup>th</sup> Jun	Fusion 360- Product modelling	Rendering techniques	
	1 <sup>st</sup> July	Fusion 360- Product modelling	Presenting a product design drawing	
	8 <sup>th</sup> July	Fusion 360- Product modelling	Orthographic Drawing	
	15 <sup>th</sup> Jul			

