

Year 11 Engineering Design- Unit R039

Dear parents/ carers,

I am writing to update you on the progress and future deadlines for our year 11 Engineering students. The focus this term has been the continuation of students developing their sketching skills to create and present their design ideas for the desk tidy brief. Students have learnt how to enhance their 2D sketching skills and then draw their designs in 3D using, oblique, isometric and 2-point perspective projection.

Students are now approaching their first deadline (Friday 25th October) to submit their design ideas for the desk tidy. Students need to have completed the following:

- Created 6 design ideas for the desk tidy
- Each design to include 3 different sketches, one in 2D and 2 others in 3D (Oblique, Isometric or 2-point perspective)
- Drawings to be presented in PowerPoint and then labelled and annotated describing how they meet the brief/ specification

Next steps:

Mock exam: Students will sit a mock paper (1 hour 15 minutes) during the second week back after half term. Students have been preparing for the mock paper this term and its essential that they revise for this over half term. There will be a revision activity set on Satchell for them to reference over half term. I advise that students revise the following topic areas:

- Product analysis- ACCESSFM
- Sustainability (The 6 R's)
- Orthographic drawing
- 3D printing- Advantages/ Disadvantages
- Ergonomics/ Anthropometrics
- Legislation- BSI, CE

Please could I draw your attention also to the fantastic revision guides from Hodder. We have these for sale at a discounted price of £3. These guides cover all the theory content for the exam. Please purchase these by simply ordering them on ParentPay. I will supply guides for those students who are currently on Pupil Premium.

Following the mock exams students will then **choose one** of their design ideas and produce final design drawings in Isometric, Oblique and 2-point perspective, developing and uplifting their designs further.

As you can see from the plan below, we will work on this up to Christmas. In the new year we will then focus on creating their designs using Fusion 360 CAD software. **The final deadline for all coursework will be the 24th of March.** After this deadline students will then focus entirely on the remaining exam preparation.



HALF TERM						
Week 9	4 th Nov	Task 2- Final Design Development SCAMPER	Task 2- Final Design Development SCAMPER	Task 2- Final Design Development SCAMPER	Mock Exam week	
Week 10	11 th Nov	Final Design- Oblique	Final Design Oblique			
Week 11	18 th Nov	Final Design Isometric	Final Design Isometric	Final Design Isometric		
Week 12	25 th Nov	Final Design 2-point perspective	Final Design 2-point perspective			
Week 13	2 nd Dec	Paste sketches into PowerPoint Annotate key features in detail	Paste sketches into PowerPoint Annotate key features in detail	Paste sketches into PowerPoint Annotate key features in detail		
Week 14	9 th Dec	Specification comparison	Specification comparison	Specification comparison		
CHRISTMAS						
Week 15	7 th Jan	Orthographic Drawing- Final Design	Orthographic Drawing- Final Design	Exam theory	Design Cycle- Iterative Design process	
Week 16	13 th Jan	Orthographic Drawing- Final Design	Orthographic Drawing- Final Design			
Week 17	27 th Jan	Disassembly drawing- Final Design	Disassembly drawing- Final Design	Exam theory	Manufacturing processes	
Week 18	3 rd Feb	Disassembly drawing- Final Design	Disassembly drawing- Final Design			
Week 19	10 th Feb	CAD- Fusion 360- Final Design	CAD- Fusion 360- Final Design	Exam theory	Scales of manufacture	
HALF TERM						
Week 20	24 th Feb	CAD- Fusion 360- Final Design	CAD- Fusion 360- Final Design	Exam theory	Legislation	
Week 21	3 rd Mar	CAD – Presentation drawing	CAD – Presentation drawing			
Week 22	10 th Mar	CAD- Orthographic	CAD- Orthographic	Exam theory	Market pull Technology push	
Week 23	17 th Mar	Coursework map up week	Coursework map up week			
Week 24	24 th Mar	Deadline for all coursework completion Exam theory	Exam theory	Exam theory	6R's Recycling	
Week 25	31 st Mar	Exam theory	Exam theory		Types of Engineering drawings	
HALF TERM						
Week 26	21 st April	Exam theory	Exam theory	Exam theory	Working drawings	
Week 27	28 th April	Exam theory	Exam theory		Methods of evaluation ideas	
Week 28	5 th May	Exam theory	Exam theory	Exam theory	Modelling methods	
Week 29	12 th May	EXAM 13th MAY!				
Week 30	19 th May					

Future Coursework deadlines:

25th October- 6 designs drawings completed, 3 sketches for each design, One 2D sketch, then two 3D sketches in either oblique, isometric or 2-point perspective. All designs annotated in detail, coloured showing shade and texture

11th November- Final Design, Oblique sketch- rendered & annotated

25th November- Final Design, Isometric drawing- rendered & annotated

9th December- Final Design-Specification comparison

13th January- Final Design- Orthographic Drawing

3rd February- Final Design- Disassembly drawing

3rd March- Final CAD design- rendered, CAD orthographic drawing- Step by step annotation

24th March- Final submission for marking- all coursework

As always, thank you for your continued support. If you have any further questions, please don't hesitate to contact me by leaving a message at reception, or alternatively, email me directly at smith@suthersschool.org.uk

Yours sincerely,

Mr Smith

Teacher of Engineering