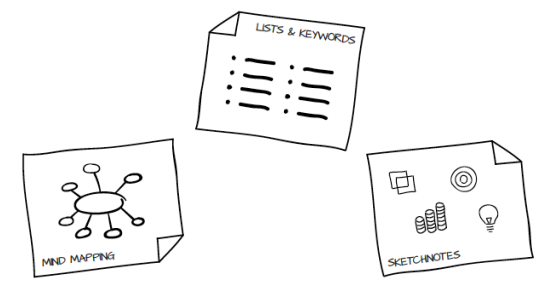


How to Revise Week

Question-a-day and 20 minute Revision tasks
March - April 2024

Subject:
Engineering



MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	NOTES:
25th March What is the formula for working out Mechanical Advantage ?	26th March Draw an example of an orthographic projection .	27th March What do the following terms mean? Ductility, Malleability, Hardness and Toughness.	28th March Draw the circuit symbols for: Cell, Resistor, LED, Transistor, Capacitor, Diode, LDR, and Buzzer.	29th March What is the formula for calculating Force ? And what is force usually measured in?	30th March How would you cut, drill and fold a piece of Aluminium ? What tools/equipment would you need?	31st March Using simple diagrams and notes explain the Milling process using a slot drill and end mill.	<p>TRY TO USE A MIXTURE OF DIFFERENT REVISION TECHNIQUES SUCH AS THE EXAMPLES BELOW:</p> <div></div> <div><div>ENGINEERING MATERIALS PAGES 1 - 16</div><div>ENGINEERING MANUFACTURING PROCESSES PAGES 17 - 37</div><div>SYSTEMS PAGES 38 - 54</div><div>TESTING AND EVALUATION PAGES 55 - 65</div><div>THE IMPACT OF MODERN TECHNOLOGIES PAGES 66 - 70</div></div>
1st April Can you describe what a Relay is and why it is used to control an output in an electronic circuit?	2nd April Modern bicycles are being made from composite materials , what material is it? and why is this material used?	3rd April A cable has stretched by 2mm and its original length was 100mm. What is the Strain being placed on the cable?	4th April If a circuit has a resistance of 10KΩ and a 12V power supply, what is the current flowing through the circuit?	5th April List the advantages and disadvantages of using CAD .	6th April Draw a Cam and a Crank and Slider . What motion is the input? What motion is the output?	7th April Define the term Non-renewable ? List 2 Non-renewable sources. What are the disadvantages to using them?	
8th April What are the benefits of using a CAD program to model/test a product before manufacture?	9th April Name three Joining/Fastening methods that can be used to join two pieces of metal together.	10th April What three reasons are there for applying a surface finish to a piece of metal.	11th April Explain the difference between AC & DC voltage . Draw a graph to show each one.	12th April Explain how New and Emerging Technologies can have a positive or negative effect on production .	13th April What are the 3 formulas used in trigonometry ?	14th April Can you explain how we would Hard Solder (Brazing) two piece of metal together?	
20 minute revision Task 1: Material Properties	20 minute revision Task 2: Joining and Assembly	20 minute revision Task 3: Dimensions	20 minute revision Task 4: Engineering Materials	20 minute revision Task 5: CAD			

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ENGINEERING MANUFACTURING PROCESSES
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TESTING AND EVALUATION
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THE IMPACT OF MODERN TECHNOLOGIES
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**Subject:
Engineering**

**Exam Board:
AQA**

**Mock exam Paper:
GCSE Engineering Unit 1
2 Hours**

Topic to Revise:

3.1 Engineering Materials

3.1.1 Material Properties

3.1.1.3 Composites

3.1.3 Factors influencing design of solutions – Fossil fuels

3.2 Engineering Manufacturing Processes

3.2.2 Material Removal - Milling

3.2.3 Shaping

3.2.4 Casting and Moulding

3.2.5 Joining and Assembly – Hard Soldering

3.2.7 Surface Finishing – Metal Finishes

3.3 Systems

3.3.1 Mechanical Systems – Cams, Crank & Slider

3.3.2 Electrical Systems – Flowcharts, AC/DC Power

3.3.3 Electronic Systems – Resistors/Resistance, Relays

3.4 Testing and Evaluation

3.4.1 Modelling and Calculating – Graphs, Cost, Power, Stress, Strain, Young's Modulus, Trigonometry, Mechanical Advantage

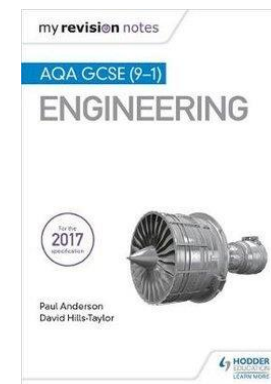
3.5 Impact of Modern Technologies

CAM

3.6 Practical engineering skills

CAD, Flowcharts, Isometric drawing, Orthographic projection, Health & Safety hazards, PPE (Personal Protective Equipment)

If you have a revision guide see below:



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