



## Year 11 Revision Schedule 2024-25

<b>Subject/Course:</b>	<b>D&amp;T GCSE - AQA exam board</b>
<b>Student Name:</b>	

		Topics	Key knowledge/skills/questions	Resources/activities/links
<b>Week 1</b>	<b>Monday 13th January</b>	<ul style="list-style-type: none"> <li>Materials</li> <li>Properties of materials</li> <li>Electronics</li> <li>Motions</li> </ul>	Textiles - Conductive textiles, Kevlar and Micro encapsulation Metals – Aluminium, Copper and Iron Paper types – Bleed Proof, Cartridge and Layout. Thermoplastics – HDPE, Acrylic and Polypropylene. Timbers – MDF, Plywood and Chipboard. Material properties. Electronics – Output devices. Motions types and linkages.  <b>Find out:</b> What are the properties, example uses and advantages/disadvantages of the above?	BBC bitesize for AQA D&T website: <a href="https://www.bbc.co.uk/bitesize/subjects/zvg4d2p">https://www.bbc.co.uk/bitesize/subjects/zvg4d2p</a>  PG online Clear revise book with mini tests: <a href="https://www.pgonline.co.uk/resources/design-and-technology/gcse-aqa/clearrevise-8552/">https://www.pgonline.co.uk/resources/design-and-technology/gcse-aqa/clearrevise-8552/</a>  <b>Pages:</b> Materials and properties 30-39. Electronics 22. Motions 24.  Mr.Ridley YouTube videos. Includes great explanations of D&T concepts/topics to help understanding. <a href="https://www.youtube.com/@mrridleydesigntechnology">https://www.youtube.com/@mrridleydesigntechnology</a>  For all else and extending knowledge further (Hinterland) Search on here. This has everything! <a href="https://www.technologystudent.com/">https://www.technologystudent.com/</a>
<b>Week 2</b>	<b>Monday 20th January</b>	<ul style="list-style-type: none"> <li>Processes</li> <li>Forces</li> <li>Sustainability</li> <li>Maths</li> </ul>	Processes - Laser cutting, Vacuum forming and die cutting. Forces such as, tension, compression, bending, torsion, shear. Carbon Footprint and lifecycle of products. Calculation of length of edges, circumference, angles and area.	PG online Clear revise book: <b>Pages:</b> Processes 130, 79, 60. Forces 44. Life cycle 51. Carbon footprint 48.  <b>Maths, areas:</b> <a href="https://www.bbc.co.uk/bitesize/topics/z8bksq8">https://www.bbc.co.uk/bitesize/topics/z8bksq8</a>  <a href="https://www.bbc.co.uk/bitesize/guides/zbstng8/revision/1">https://www.bbc.co.uk/bitesize/guides/zbstng8/revision/1</a>

<b>Week 3</b>	<b>Monday 27th January</b>	<ul style="list-style-type: none"> <li>• CAD</li> <li>• Manufacturing</li> <li>• Drawing skills</li> </ul>	<p>What is CAD and the Advantages and Disadvantages of using it? What is a Datum? Drawing – Isometric, exploded and orthographic drawings. What do each show? What are each useful for?</p>	<p>PG online Clear revise book: <b>Pages:</b> CAD 10, 125. Datum 106, Drawing 122-125.</p> <p><b>Drawing skills focus:</b> <a href="https://www.bbc.co.uk/bitesize/guides/z6jkw6f/revision/1">https://www.bbc.co.uk/bitesize/guides/z6jkw6f/revision/1</a></p>
<b>Week 4</b>	<b>Monday 3rd February</b>	<ul style="list-style-type: none"> <li>• Deforestation</li> <li>• Evaluation</li> </ul>	<p>Prototypes – what are they and what can we learn from making them?</p>	<p>PG online Clear revise book with mini tests: <b>Pages:</b> Deforestation 46, 116. Evaluation 121.</p>
<b>Week 5</b>	<b>Monday 10<sup>th</sup> February</b>	new and emerging technologies	<ul style="list-style-type: none"> <li>• The design and organisation of the workplace including automation and the use of robotics.</li> <li>• Automation.</li> <li>• flexible manufacturing systems (FMS)</li> <li>• just in time (JIT)</li> <li>• lean manufacturing.</li> </ul> <p>How technology push/market pull affects choice.</p>	<p>PG online Clear revise book: <b>Pages:</b> All areas 2-12.</p> <p><a href="https://www.bbc.co.uk/bitesize/guides/zn4bcj6/revision/1">https://www.bbc.co.uk/bitesize/guides/zn4bcj6/revision/1</a></p>
<b>Week 6</b>	<b>Monday 17th February Half Term</b>	<p><b>consolidation</b></p> <ul style="list-style-type: none"> <li>• Recap on last four weeks and consolidate.</li> </ul>	<p><b>Revise all knowledge covered in last four weeks including catching up on any areas missed above. Then...</b></p> <p>Get someone to test you on this if you can or test yourself using previous exam questions from AQA website.</p>	<p>Create Flash cards, mind maps, Use the PG Online clear revise guide if you have it and complete test questions. Download past papers and mark schemes by typing in AQA D&amp;T GCSE past papers in google.</p>
<b>Week 7</b>	<b>Monday 24<sup>th</sup> February</b>	<ul style="list-style-type: none"> <li>• energy generation and storage</li> </ul>	<ul style="list-style-type: none"> <li>• Fossil fuels</li> <li>• Nuclear power</li> <li>• Renewable energy</li> <li>• Kinetic pumped storage systems.</li> <li>• Alkaline and re-chargeable batteries.</li> </ul>	<p>PG online Clear revise book: <b>Pages:</b> All areas 13-16.</p> <p><a href="https://www.bbc.co.uk/bitesize/guides/zf8ck2p/revision/1">https://www.bbc.co.uk/bitesize/guides/zf8ck2p/revision/1</a></p>

Week 8	Monday 3 <sup>rd</sup> March	<ul style="list-style-type: none"> <li>developments in new materials</li> </ul>	<ul style="list-style-type: none"> <li>Modern materials</li> <li>Smart materials</li> <li>Composite materials</li> <li>Technical textiles</li> </ul>	PG online Clear revise book: <b>Pages:</b> All areas 17-16.  <a href="https://www.bbc.co.uk/bitesize/guides/zfq8jty/revision/1">https://www.bbc.co.uk/bitesize/guides/zfq8jty/revision/1</a>
Week 9	Monday 10 <sup>th</sup> March	<ul style="list-style-type: none"> <li>systems approach to designing</li> </ul>	<ul style="list-style-type: none"> <li>INPUTS: The use of light sensors, temperature sensors, pressure sensors and switches.</li> <li>PROCESSES: The use of programming microcontrollers as counters, timers and for decision making, to provide functionality to products and processes.</li> <li>OUTPUTS: The use of buzzers, speakers and lamps, to provide functionality to products and processes</li> </ul>	PG online Clear revise book: <b>Pages:</b> 22.  <a href="https://www.bbc.co.uk/bitesize/guides/z6kr97h/revision/1">https://www.bbc.co.uk/bitesize/guides/z6kr97h/revision/1</a>
Week 10	Monday 17 <sup>th</sup> March	<ul style="list-style-type: none"> <li>mechanical devices</li> </ul>	<ul style="list-style-type: none"> <li>The functions of mechanical devices to produce linear, rotary, reciprocating and oscillating movements.</li> <li>Lever</li> <li>Linkages</li> <li>Rotary systems</li> </ul>	PG online Clear revise book: <b>Pages:</b> 24-27  <a href="https://www.bbc.co.uk/bitesize/guides/zbt26yc/revision/1">https://www.bbc.co.uk/bitesize/guides/zbt26yc/revision/1</a>
Week 11	Monday 24 <sup>th</sup> March	Timbers focus: <ul style="list-style-type: none"> <li>materials and their working properties.</li> </ul>	<ul style="list-style-type: none"> <li><b>overview of the main categories and types of natural and manufactured timbers:</b> hardwoods including: • ash • beech • mahogany • oak • balsa softwoods including: • larch • pine • spruce manufactured boards including: • medium density fibreboard (MDF) • plywood • chipboard.</li> <li><b>Material properties:</b> • absorbency (resistance to moisture) • density • fusibility • electrical and thermal conductivity • strength • hardness • toughness • malleability • ductility and elasticity</li> </ul>	PG online Clear revise book: <b>Pages:</b> Main types of Timber: 32-33. Properties – 30, 62-63.  <a href="https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/1">https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/1</a>  <a href="https://www.bbc.co.uk/bitesize/guides/zjgyb82/revision/1">https://www.bbc.co.uk/bitesize/guides/zjgyb82/revision/1</a>
Week 12	Monday 31 <sup>st</sup> March	Timbers focus: using and working with materials	<ul style="list-style-type: none"> <li>Properties of materials (recap on Easter work) - Timber based materials (traditional timber children's toys and flat pack furniture).</li> <li>The modification of properties for specific purposes</li> <li>How to shape and form using cutting, abrasion and addition</li> </ul>	<ul style="list-style-type: none"> <li>Seasoning to reduce moisture content of timbers (timber based materials).</li> <li>How to cut, drill, chisel, sand and plane?</li> </ul> PG online Clear revise book: <b>Pages:</b> Shaping Timbers 83-85  <a href="https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/8">https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/8</a>

Week 13	Monday 7 <sup>th</sup> April Easter Hols	Timbers focus: <ul style="list-style-type: none"> <li>• selection of materials or components</li> <li>• forces and stresses</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Functionality:</b> application of use, ease of working.</li> <li>• <b>Aesthetics:</b> surface finish, texture and colour.</li> <li>• <b>Environmental factors:</b> recyclable or reused materials. <b>Availability:</b> ease of sourcing and purchase.</li> <li>• <b>Cost:</b> bulk buying.</li> <li>• <b>Social factors:</b> social responsibility.</li> <li>• <b>Cultural factors:</b> sensitive to cultural influences.</li> <li>• <b>Ethical factors:</b> purchased from ethical sources such as FSC.</li> <li>• <b>Timbers focus:</b> Tension, compression, bending, torsion and shear. How materials can be reinforced, stiffened or made more flexible: eg lamination, bending,</li> </ul>	PG online Clear revise book: <b>Pages:</b> selection of materials or components 128. Forces – 44  <a href="https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/2">https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/2</a>  Practice past exam papers from AQA website and self-assess using the mark scheme: <a href="https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/assessment-resources">https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/assessment-resources</a>
Week 14	Monday 14 <sup>th</sup> April Easter Hols	Timbers focus: <ul style="list-style-type: none"> <li>• ecological and social footprint</li> <li>• sources and origins</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Ecological issues in the design and manufacture of products:</b> Deforestation, mining, That carbon is produced during the manufacture of products</li> <li>• The six Rs.</li> <li>• Safe working conditions; reducing oceanic/ atmospheric pollution and reducing the detrimental (negative) impact on others</li> <li>• Timber based materials (seasoning, conversion and creation of manufactured timbers).</li> </ul> <p><b>Revise all knowledge covered in last seven weeks including catching up on any areas missed. Then...</b></p> <p>Get someone to test you on this if you can or test yourself using previous exam questions from AQA website.</p>	PG online Clear revise book: <b>Pages:</b> ecological and social footprint – 46. sources and origins – 62.  <a href="https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/3">https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/3</a>  <a href="https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/4">https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/4</a>
Week 15	Monday 21 <sup>st</sup> April	Timbers focus: <ul style="list-style-type: none"> <li>• stock forms, types and sizes</li> </ul>	<ul style="list-style-type: none"> <li>• Planks, boards and standard moldings.</li> <li>• Sold by length, width, thickness and diameter.</li> <li>• Standard components eg woodscrews, hinges, KD fittings.</li> </ul>	PG online Clear revise book: <b>Pages:</b> stock forms, types and sizes 64-66.  <a href="https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/6">https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/6</a>

Week 16	<b>Monday 28<sup>th</sup> April</b>	Timbers focus: <ul style="list-style-type: none"> <li>scales of production</li> </ul>	How products and why are products produced in different volumes?  Prototype, batch, mass and continuous.	PG online Clear revise book: <b>Pages:</b> 104-105.  <a href="https://www.technologystudent.com/pdf14/display5.pdf">https://www.technologystudent.com/pdf14/display5.pdf</a>
Week 17	<b>Monday 5<sup>th</sup> May</b>	Timbers focus: <ul style="list-style-type: none"> <li>specialist techniques and processes</li> </ul>	For example: Turning, sawing, sanding, milling, drilling, lamination.	PG online Clear revise book: <b>Pages:</b> 83-86. Lamination - 66.  Do you know a range of tools, equipment and processes that can be used to shape, fabricate, construct and assemble high quality prototypes?
Week 18	<b>Monday 12<sup>th</sup> May</b>	Timbers focus: <ul style="list-style-type: none"> <li>surface treatments and finishes</li> </ul>	The preparation and application of treatments and finishes to enhance functional and aesthetic properties:  Timber based materials: painting, varnishing and tanalising.	PG online Clear revise book: <b>Pages:</b>  <a href="https://www.bbc.co.uk/bitesize/guides/zkvnv4j/revision/11">https://www.bbc.co.uk/bitesize/guides/zkvnv4j/revision/11</a>
Week 19	<b>Monday 19<sup>th</sup> May</b>	<ul style="list-style-type: none"> <li>environmental, social and economic challenge</li> </ul>	<ul style="list-style-type: none"> <li>deforestation</li> <li>possible increase in carbon dioxide levels leading to potential global warming</li> <li>the need for fair trade.</li> </ul>	PG online Clear revise book: <b>Pages:</b> 46-49
Week 20	<b>Monday 26<sup>th</sup> May Half term</b>	<ul style="list-style-type: none"> <li>communication of design ideas</li> <li>tolerances</li> <li>specialist tools and equipment – Timbers focus.</li> </ul>	freehand sketching, isometric and perspective • 2D and 3D drawings • system and schematic diagrams • annotated drawings that explain detailed development or the conceptual stages of designing • exploded diagrams to show constructional detail or assembly • working drawings: 3rd angle orthographic, using conventions, dimensions and drawn to scale.	PG online Clear revise book: <b>Pages:</b> Tolerance 129, Communication of ideas 122-125. Tools 83-86.  <a href="https://www.bbc.co.uk/bitesize/guides/z6jkw6f/revision/1">https://www.bbc.co.uk/bitesize/guides/z6jkw6f/revision/1</a>  <a href="https://technologystudent.com/despro_fish/revise17.html">https://technologystudent.com/despro_fish/revise17.html</a>
Week 21	<b>Monday 2<sup>nd</sup> June</b>	Consolidation revision and exam question practice.	Check topic list provided in Autumn term of Y11 in your green book and revise areas where you are least secure.	Practice past exam papers from AQA website and self-assess using the mark scheme: <a href="https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/assessment-resources">https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/assessment-resources</a>

Week 22&23	<b>Monday 9<sup>th</sup> June</b>	Consolidation revision and exam question practice for days leading up to exam	Final Check of topic list provided in Autumn term of Y11 in your green book and continue to revise areas where you are the least secure so you can tackle all questions.  For weaker areas either: <ul style="list-style-type: none"><li>• Create an A4/A3 visual mind map from resources recommended in this doc.</li><li>• Make 10+ flashcards on the topic.</li><li>• Practice blank page retrieval until you can fill an A4 page at least on the topic.</li><li>• Watch YouTube videos on the topic.</li><li>• Something else that works for you. Key thing is you feel more confident on the areas within that topic.</li></ul> <b>Exam is Tuesday 18<sup>th</sup> June (AM)</b>	Practice past exam papers from AQA website and self-assess using the mark scheme: <a href="https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/assessment-resources">https://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-8552/assessment-resources</a>
------------	---	---	--	--