



# SRS –Curriculum Overview – Design Technology

	Term 1 Key knowledge/skills	Term 2 Key knowledge/skills	Term 3 Key knowledge/skills	Resources & Information for parents/students
EYFS	Junk Modelling – designing a firework background	Vehicles – Designing and making various vehicles Puppets – Designing and making traditional tale puppets	Food – Prepping and cooking food for a pet Moving animals – Joining parts to create movement	
Y1	Puppets - Research, design, create, test and evaluate their own stick puppets	Rockets - Research, design, create, test and evaluate a rocket that orbits a moon	Clay animals - investigate animals of the savannah and develop clay skills to create a model	
Y2	Structures – designing and building a home or dwelling	Healthy eating – designing and cooking a meal for an elderly giant	The Aztecs – Designing and making an Aztec drinking vessel	
Y3	Volcanoes – design, create and erupt a volcano	Roman Footwear - research, design, create, test and evaluate a sandal that a Roman would have worn	Mechanical systems – explore levers and linkages to create a prototype invention	
Y4	Foods from India & Pakistan In DT the children will create vegetable samosas by exploring vegetables grown in that region of the world	Soft Toys - design, create and evaluate a soft toy of an animal from a specific habitat	Money Containers - engage in the production process by designing and producing a product	
Y5	Traditional Ingredients & Seasonality – cooking a savoury dish from China	Sculpting - manipulating clay to create a model of a longship figurehead	Structures - explore and analyse structures and buildings within North America and compare these to structural designs in London	
Y6	Moving Vehicles – building a battery powered car including chassis, circuit and axles	Structures - develop the skill of strengthening joints in a structure	Cooking - explore the food of South America through local produce and design a South American dish	
Y7	<b>Design &amp; Technology:</b>  Demonstrate knowledge in workshop safety.  Learn about papers and boards: Stock sizes and origins.  The Iterative design processes.  Understand paper-based mechanisms.	Understanding and safe use of appropriate hand tools related to paper.  <b>Practical lessons:</b> Design and make a pop-up book that demonstrates their understanding of the design process and of mechanisms.	<b>Students undertaking Food Technology</b>	<a href="https://www.technologystudent.com/">https://www.technologystudent.com/</a>  <a href="http://www.design-technology.info/home.htm">http://www.design-technology.info/home.htm</a>  <a href="https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4">https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4</a>



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<p><b>Y8</b></p>	<p><b>Students undertaking Food Technology</b></p>	<p><b>Design &amp; Technology:</b></p> <p>Learn about origin of Natural fibres and synthetic fibres.</p> <p>Understand and apply the 6R's of sustainability and environmental effects of consumers.</p> <p>Iterative design process: Logo's and slogans.</p>	<p>Explore a range of textiles techniques:</p> <p>Applique, Embroidery stitches – running, cross, back, ladder, whip Bondaweb, Tie die.</p> <p><b>Practical lessons:</b> Create an environmentally friendly tote bag that shows their understanding of the techniques learnt.</p>	<p><a href="https://www.technologystudent.com/">https://www.technologystudent.com/</a></p> <p><a href="http://www.design-technology.info/home.htm">http://www.design-technology.info/home.htm</a></p> <p><a href="https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4">https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4</a></p>
<p><b>Y9</b></p>	<p><b>Design &amp; Technology:</b></p> <p>Workshop machinery safety.</p> <p>Understanding of timbers: Hardwoods, Softwood and manufactured timbers.</p> <p>Identify a range of wooden Joints.</p> <p>Hand tools: to be able to identify and use a range of hand tools safely.</p> <p>Machinery: To be able to use the pillar drill, band facer 7 fret saw safely.</p> <p>Isometric drawing.</p> <p><b>Practical Lessons:</b> Create a wooden base for a lamp based on skills learnt.</p>	<p>Iterative design: mindfulness lamp.</p> <p>CAD: Understanding of what is CAD. To be able of demonstrate knowledge of the advantages and disadvantages of CAD.</p> <p>CAM: Understanding of what is CAM. To be able of demonstrate knowledge of the advantages and disadvantages of CAM.</p> <p><b>Practical lessons:</b> Techsoft 2d Design: understanding of using the software to create an acrylic sign.</p>	<p><b>Students undertaking Food Technology</b></p>	<p><a href="https://www.technologystudent.com/">https://www.technologystudent.com/</a></p> <p><a href="http://www.design-technology.info/home.htm">http://www.design-technology.info/home.htm</a></p> <p><a href="https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4">https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4</a></p>
<p><b>Y10</b></p>	<p>Mock NEA: Educational Toy</p> <ul style="list-style-type: none"> <li>• Task Analysis</li> <li>• Research</li> <li>• Specification</li> <li>• Generating Ideas</li> <li>• Design Development</li> </ul> <p>Theory:</p> <ul style="list-style-type: none"> <li>• new and emerging technologies</li> <li>• energy generation and storage</li> <li>• developments in new materials</li> <li>• systems approach to designing</li> </ul>	<p>Mock NEA: Educational toy</p> <ul style="list-style-type: none"> <li>• Final Design</li> <li>• Modelling</li> <li>• CAD/CAM</li> <li>• Final Prototype</li> <li>• Evaluation</li> </ul> <p>Theory:</p> <ul style="list-style-type: none"> <li>• mechanical devices</li> <li>• materials and their working properties</li> <li>• selection of materials or components</li> <li>• forces and stresses</li> <li>• ecological and social footprint</li> <li>• sources and origins</li> </ul>	<p>Introduction into NEA:</p> <ul style="list-style-type: none"> <li>• Explore Context, Identify and investigate</li> <li>• Outline design possibilities</li> <li>• Product analysis,             <ul style="list-style-type: none"> <li>• Further research</li> </ul> </li> </ul> <p>Theory:</p> <ul style="list-style-type: none"> <li>• using and working with materials</li> <li>• stock forms, types and sizes</li> <li>• scales of production</li> <li>• specialist techniques and processes</li> <li>• surface treatments and finishes.</li> </ul> <p>RECAP and recall and prepare for end of year exam</p>	<p><a href="https://www.technologystudent.com/">https://www.technologystudent.com/</a></p> <p><a href="http://www.design-technology.info/home.htm">http://www.design-technology.info/home.htm</a></p> <p><a href="https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4">https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4</a></p> <p>AQA GCSE 9-1 Design and Technology Complete Revision &amp; Practice: ISBN 978-0-00-853501-8</p> <p>Clear Revise illustrated revision and practice AQA GCSE Design and Technology 8552: ISBN 9781910523247</p>



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<b>Y11</b>	<p>NEA: Design and make prototypes that are fit for purpose:</p> <ol style="list-style-type: none"><li>1. Generating design ideas</li><li>2. Developing design ideas</li><li>3. Communication of design ideas and prototype development.</li></ol> <p>Theory (Recap and recall from Y10)</p> <ul style="list-style-type: none"><li>• new and emerging technologies</li><li>• energy generation and storage</li><li>• developments in new materials</li><li>• systems approach to designing</li><li>• mechanical devices</li><li>• materials and their working properties</li></ul>	<p>NEA: Design and make prototypes that are fit for purpose:</p> <p>NEA: Analyse and evaluate</p> <ol style="list-style-type: none"><li>1. Realising design ideas</li><li>2. Product testing</li><li>3. Evaluation against specification</li></ol> <p>Theory (Recap and recall from Y10)</p> <ul style="list-style-type: none"><li>• selection of materials or components</li><li>• forces and stresses</li><li>• ecological and social footprint</li><li>• sources and origins</li><li>• using and working with materials</li><li>• stock forms, types and sizes</li><li>• scales of production</li><li>• specialist techniques and processes</li><li>• surface treatments and finishes.</li></ul>	<p>Written Exam Preparation: Recap of units, supervised study</p>	<p><a href="https://www.technologystudent.com/">https://www.technologystudent.com/</a></p> <p><a href="http://www.design-technology.info/home.htm">http://www.design-technology.info/home.htm</a></p> <p><a href="https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4">https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4</a></p> <p>AQA GCSE 9-1 Design and Technology Complete Revision &amp; Practice: ISBN 978-0-00-853501-8</p> <p>Clear Revise illustrated revision and practice AQA GCSE Design and Technology 8552: ISBN 9781910523247</p>
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