

# Year 10

Subject   Design & Technology		
Intent for the Year		
Building on the knowledge and skills that pupils have gained in Years 7,8 and 9 this course covers core technical and designing and making principles, including a broad range of design processes, materials, techniques, and equipment. Students will also study specialist technical principles in greater depth through a chosen material area. This currently includes Timbers, Polymers, Metal, Electronics and Paper & Boards. A seamless progression from Key Stage 3.		
Topics Covered		
<b>Mobile phone holder- Revision of Plastics and Paper &amp; Boards</b> Plastics: Industrial manufacture: Fractional distillation, injection moulding and extrusion Manufacture in school: Line bending, vacuum forming and plastic work hand skills. Graphics: Industrial manufacture: Offset lithography die cut and deforming and laminating. Modelling and CAD skills. One off, Batch production and mass production		
<b>Mechanical Toy-Revision of Timbers, mechanisms, and levers</b> Timers: Types, properties, joining and stock forms, Motion and Change of motion, cams, and followers.		
<b>Popups and levers- Paper and Board-Revision</b>		
<b>Bike tool-Metal</b> Metal: Origins of metal. Industrial manufacture of iron and aluminium Manufacture in school: Metal work lathe, riveting and shaping. Ergonomics and anthropometric data		
Parents/Carers can help by...		
<ul style="list-style-type: none"><li>• Talking to your child about the topics studied in class.</li><li>• Encouraging to complete homework tasks</li><li>• Bring the correct equipment including protractor, calculator and a sharp pencil.</li><li>• Do some DIY or craft at home with them!</li></ul>		
Useful Websites		
<a href="https://www.technologystudent.com/">https://www.technologystudent.com/</a> 123 <a href="https://www.bbc.co.uk/bitesize">https://www.bbc.co.uk/bitesize</a> allsaints.dorset.sch.uk- Resources -Year 10-D&T		
Recommended Reading		
Book Title	Author	Brief Reasoning
The way things work	David Macaulay	STEM-Get to grips with how things work inside hundreds of machines with this extraordinary book that explains the science behind technologies and inventions.
How to be an Engineer	Carol Vorderman	Learn as you do in this hands-on engineering book for pupils