

TECHNOLOGY FACULTY – RESISTANT MATERIALS  
YEAR 7 & 8

<i>Topic(s) covered</i>	<i>Resources available e.g. Website</i>
<p>Year 7 - Workshop safety. Introduction of first project. Design and make an acrylic phone stand or desk tidy or a product with the capability to protect and possibly organise small objects. Researching.</p> <p>Year 8 – Workshop safety. Introduction of first project. Make a miniature truck with CAM mechanism.</p>	<p>Worksheets. Use of “Google” for general research on phone stands, desk tidies and trucks.</p>
<p>Design by initially sketching and the formal drawing.</p>	
<p>Use of tools and equipment. Practical work using mainly wood (pine) but with other materials as needed. Safety considerations.</p> <p>Skills covered: coping saw and vice, drilling machine. Hegner saw, limited use of jigs, use of wet and dry paper and cleaning up. Stage by stage description of processes.</p>	<p>Tools and machinery.</p>
<p>Introduction of second project and the design process. Brief “Design and make a door, wall or identity plaque from acrylic”. Students to write brief, analysis and specification, followed by research and design work. Students then make design. Plastics and wood working techniques, polishing, forming, cuttin, and sanding.</p>	<p>As above. Use of computers and Google for research.</p>
<p>Testing and evaluation writing. Peer assessment.</p>	<p>Worksheets.</p>

TECHNOLOGY FACULTY – RESISTANT MATERIALS  
YEAR 9

<i>Topic(s) covered</i>	<i>Resources available e.g. Website</i>
Electronic MINI car. Extension – portable MP3 player circuit with housing.	Internet/catalogue/shop research.
Practical Work: Design and make a battery powered MINI car to move on a flat horizontal surface that uses high intensity LEDs and a motor.	Materials: Polystyrene. Wood, LEDs, wire, battery holder.
Skills covered: designing, producing card model. Marking out and cutting material and vacuum forming, soldering, basic electronics, assembling parts together, sanding and finishing.	General workshop tools and equipment as needed.
Testing and evaluation writing.	Guidance sheet plus peer assessment sheet.