



D&T- RESISTANT MATERIALS - YEAR PLANNER (LTP) – YEAR 10



Term	Learning content/skills	Assessment Schedule*	Home Learning Support (How students can extend learning in addition to homework)
Autumn 1	Box project Manufactured boards, tools and equipment, isometric drawing, 3 rd angle orthographic, hazards and symbols		Research topics covered in class in further depth using websites such as: http://www.bbc.co.uk/schools/gcsebitesize/ http://www.technologystudent.com/ Look at products around the house to see where hazard symbols can be found.
Autumn 2	2 point perspective, wood joints, knock down fittings, types of paint, 3D CAD Materials and their properties – physical and working Papers and boards Natural and manufactured timbers Metals and alloys Polymers Textiles	Half term test	Practise drawing products in an exploded format to show all of the parts in detail. Read over the class notes on the range of materials. There are a lot to learn and this will take time.
Spring 1	Modern materials Smart materials Composites Technical textiles New and emerging technologies: industry and enterprise New and emerging technologies: people, culture and society	Half term test	Use You Tube to research a range of videos demonstrating the use of smart and nano materials. We do not have nano materials in school yet so outside examples are very important. https://www.youtube.com
Spring 2	New and emerging technologies: sustainability and the environment New and emerging technologies: production techniques Critical evaluation of new and emerging technologies Energy generation: fossil fuels	Half term test	Use the internet to research the impact of using materials on our planet. How are the creating the greenhouse effect and what can we do to help?
Summer 1	Energy generation: nuclear power Energy generation: renewable energy Energy generation: energy storage systems Systems approach to designing 1: inputs and outputs Systems approach to designing 2: processes and microcontrollers Types of movement, levers and linkages Rotary systems NEA task released this half term Students to begin investigation of brief	Half term test	Begin revision for Year 10 PPE's. Look over all work and make a list of topics you need are struggling to memorise. Start by testing yourself on these areas. Use these website for further investigation of types of levers, linkages and rotary systems. http://www.bbc.co.uk/schools/gcsebitesize/ http://www.technologystudent.com/
Summer 2	Exam preparation for PPE's – wk commencing 11 th June. Continue with topics above. NEA will continue this during this half term.	Yr10 PPE - June	Continue revision for Year 10 PPE by repeating any exam questions we have already looked at. Practise sketching in isometric and creating ideas for a range of products.

*All assessments may be subject to alteration to best suit the learning needs of students.