

KS4 DT –Yr 10 Half term 4

What? When? Why?	Lesson one Learning intentions (what can a student do at the end of the lesson)	Lesson two Learning intentions (what can a student do at the end of the lesson)	Lesson Three Learning intentions (what can a student do at the end of the lesson)
Week One	Plastics be able to identify common thermoplastics i.e., high impact polystyrene, expanded polystyrene, acrylic, acetate, HDPE, PVC, PET.	<ul style="list-style-type: none"> • Practical phase - plastics • Produce effective sketches with colour and annotation. 	<ul style="list-style-type: none"> • Pupils will be investigating properties of materials and make correct selections when designing products.
Week Two	Plastics understand the ways in which plastics can be formed, especially about consumer products, i.e., vacuum forming, injection moulding, blow moulding, line bending, compression moulding, extrusion;	<ul style="list-style-type: none"> • Practical phase – Plastics • Be able to use appropriate measuring and marking tools 	<ul style="list-style-type: none"> • Pupils will be able to modify plastic properties for a specific purpose
Week Three	Plastics understand that most plastics are synthetic, and that the composition can be adjusted to create different properties for specific purposes e.g., increase rigidity, reduce weight, insulation;	<ul style="list-style-type: none"> • Practical phase – Plastics • Be able to use a range of cutting and abrading tools when working with plastics 	<ul style="list-style-type: none"> • will be able to name and use commercially available types and sizes of plastic material

Week Four	<p>Plastics understand the stock forms for plastic materials i.e., sheet, rod, powder, granules, foam; <ul style="list-style-type: none"> • have a basic understanding of the source of plastics and the primary processes involved in conversion to workable materials. </p>	<ul style="list-style-type: none"> • Practical phase – Plastics • Be able to demonstrate appropriate initial preparation techniques when finishing plastics 	<ul style="list-style-type: none"> • Pupils will be able to describe how materials are cut shaped and formed to a tolerance
Week Five	<p>New materials have a knowledge and understanding that the development of new and smart materials is allowing designers to meet a variety of user needs in new and exciting ways e.g. – Precious Metal Clays (PMC) used in jewellery manufacture.</p>	<ul style="list-style-type: none"> • Practical phase – Plastics • Understands the importance of applying an undercoat for a finish on a plastic material 	<ul style="list-style-type: none"> • Will be able to describe the different ways products can be tested both physically and virtually
Week Six	<p>New materials have a knowledge and understanding that the development of new and smart materials is allowing designers to meet a variety of user needs in new and exciting ways e.g. – Precious Metal Clays (PMC) used in jewellery manufacture.</p>	<ul style="list-style-type: none"> • Practical phase – Plastics • Be able to describe specific Health and Safety issues when drilling or cutting plastics 	<ul style="list-style-type: none"> • Will be able to describe how to evaluate products with particular reference to the original design specification