



Note : The units of work are completed on a carousel at KS3 and will be subject to order of learning with Hospitality & Art.

	LP1.1	LP1.2	LP1.3	LP1.4	LP1.5	LP1.6	LP1.7	Learning outcomes	LP2.1	LP2.2	LP2.3	LP2.4	LP2.5	LP2.6	LP2.7	Learning outcomes
<b>Year 7</b>	discuss what I will be learning this learning programme. Identify and explain Health & Safety rules for the DT Classroom.	be able to explain why we use a template when cutting and drilling and be able to discuss a risk assessment.	learn and demonstrate how to use the fret saw safely and accurately, following correct procedure.	demonstrate how to use a try square to mark out the slot for the head accurately.	complete an assessment based on what I have learnt.	use PVA adhesive to glue the component parts together safely and accurately.	evaluate my own performance with regards to the manufacture of the wooden animal and suggest improvements.	Pupils will know: Through completing this unit of work pupils will be aware of the various timber classifications and types available. They will be able to describe the differences between the classifications and name some specific types. They will also be able to talk about the importance of health and safety in the practical environment. Pupils will be able to: Use a variety of tools and machinery safely to manufacture a wooden animal of their choice.	discover and be able to describe what a 'smart material' is.	recognise how colour influences a product and its packaging.	transfer the final design solution onto 2D design using simple tools.	learn how to use a craft knife, safety ruler and cutting mat safely and accurately.	create a simple circuit using copper track accurately.	test the completed circuit and modify if necessary.	complete an assessment based on what I have learnt.	Pupils will know: What a smart material is, how they are used in commercial applications and why. They will be aware of the benefits of CAD in the designing and making of the battery tester product. They will also have a basic knowledge of electrical components. Pupils will be able to: Use the programme techsoft 2D design to make a quality product that incorporates a smart material. They will also be able to make a simple circuit using a soldering iron safely.
	recognise that wood can be classified into three main groups, hardwoods, softwoods and manufactured boards. I will be able to suggest examples of each.	learn and demonstrate how to use the bench drill safely and accurately, following correct procedure.	drill the eye for the wooden animal head safely and accurately, following correct procedure.	use a Tenon saw safely and accurately, following correct procedure, to cut a slot for the wooden animals head.	use the belt sanding machine safely and accurately to modify the shape of the product through wasting.	finish the product with glasspaper and present for assessment.			recognise how smart materials are used in everyday applications.	use basic colour theory to produce initial designs for a battery tester including simple notes to explain design choices.	add colour, text and related imagery to the final solution in CAD.	explain and demonstrate the difference between cutting and scoring lines.	demonstrate how to solder a simple joint safely and accurately.	assemble final product and test.	evaluate my final product.	
<b>Year 8</b>	discuss what I will be learning this learning programme. Understand the key polymers and variety of forms they are available in.	recognise and discuss four ways polymers can affect the environment. Model a variety of solutions in card	analyse the various processes used to deform and reform polymers in the school workshop and in industry.	learn how to use a strip heater safely and accurately to manipulate the acrylic independently.	manipulate the plastic figure independently, paying close attention to safety and accuracy.	manipulate the plastic figure independently, paying close attention to safety and accuracy.	evaluate my finished product and identify some changes that would enhance the product.	Pupils will know: Through completing this unit of work pupils will be aware of the various polymer classifications and types available. They will be able to describe the differences between the classifications and name some specific types. They will also be able to talk about the environmental effect of polymers within the life cycle of a product. Pupils will be able to manipulate a thermoplastic on a strip heater safely and accurately into a design of their own. They will manufacture a final piece that will hold their mobile phone effectively.	discover and be able to describe what a 'smart material' is.	recognise how colour influences a product and its packaging.	transfer the final design solution onto 2D design using simple tools.	learn how to use a craft knife, safety ruler and cutting mat safely and accurately.	create a simple circuit using copper track accurately.	test the completed circuit and modify if necessary.	complete an assessment based on what I have learnt.	Pupils will know: What a smart material is, how they are used in commercial applications and why. They will be aware of the benefits of CAD in the designing and making of the battery tester product. They will also have a basic knowledge of electrical components. Pupils will be able to: Use the programme techsoft 2D design to make a quality product that incorporates a smart material. They will also be able to make a simple circuit using a soldering iron safely.
	explore the physical and working properties of various polymers.	measure, cut and pin wooden base independently.	learn how to use a strip heater safely and accurately to manipulate the acrylic independently.	adjust plastic figure and add surface finish to base independently;		complete an assessment based on what I have learnt.			recognise how smart materials are used in everyday applications.	use basic colour theory to produce initial designs for a battery tester including simple notes to explain design choices	add colour, text and related imagery to the final solution in CAD.	explain and demonstrate the difference between cutting and scoring lines.	demonstrate how to solder a simple joint safely and accurately.	assemble final product and test.	evaluate my final product.	
<b>Year 9</b>	discuss what I will be learning this learning programme. Learn what a design movement is.	learn about the variety of metals and their properties.	learn how to read an engineering drawing independently and mark out metal in the workshop accurately.	use metalwork tools independently to cut and shape mild steel sheet safely and accurately.	complete an assessment based on what I have learnt.	review my assessment and revisit areas required for improvement.	produce a wide range of detailed designs independently to fit a given brief.	Pupils will know: Through completing this unit of work pupils will be aware of the various metal classifications and types available. They will be able to describe the differences between the classifications and name some specific types. They will also be aware of design movements and styles of the past and present. Pupils will be able to read an engineering drawing to mark out a basic shape on metal. They will be able to cut, shape and join the metal accurately and safely to produce a themed tea light candle holder.	review prior knowledge of plastics including the different types of thermosetting and thermoplastics.	sketch some ideas that meet the specification and brief.	transfer the final solution 2D design (CAD) using simple drawing tools.	use the Laser cutter with 2D design (CAD/CAM) to cut out your model with assistance.	use the line bender safely and accurately to form the bends on the chosen design. Add any features to meet the design movement using tensol safely. Assemble mechanism and hands.	complete an assessment based on what I have learnt.	discuss the advantages and disadvantages of CAD/CAM compared to traditional methods.	Pupils will know: How to transfer their own design from paper; to model to CAD. They will understand the advantages and disadvantages of CAD/CAM compared to traditional methods. Pupils will be able to use the programme Techsoft 2D Design to develop their idea and use the laser to print it. They will also be able to use the line bender independently to shape the final product.
	be able to recognise and explain some of the key features of some design movements such as Memphis, Bauhaus and Art Deco.	be able to match various metals to given applications independently.	use metalwork tools independently to cut and shape mild steel sheet safely and accurately.	learn how to bend the mild steel sheet to shape independently.	understand how a finish is applied and be able to explain why.	complete a detailed evaluation of the tools and processes used throughout.			analyse a given design brief and complete a simple specification based on this.	model one of the ideas in compliant materials and evaluate against the specification.	use the Laser cutter with 2D design (CAD/CAM) to cut out your model with assistance.	use the line bender safely and accurately to form the bends on the chosen design. Add any features to meet the design movement using tensol safely. Assemble mechanism and hands.	complete a detailed evaluation of the tools and processes used throughout.	complete a detailed evaluation of the tools and processes used throughout.		