

Year: 7

Term: Autumn

Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Product Design Money Box	Health and Safety	Expectations of workshop Use of machines and hand tools.	Home learning KS2 Learning	PSHE English	Knowledge
	Hand Tools and machinery related to woodworking and Acrylic	To be able to name tools To know the process, method and stage of manufacture Function of tools	Home learning Hobbies and crafting	PSHE English Maths	Knowledge
	Marking out materials	Correct use of tools Measuring accurately	Home learning Hobbies and crafting	PSHE English Maths	Knowledge
	Manufacturing	Names and sources of materials Knowing material properties Advantages and disadvantages of materials Practice skills of using hand tools and machinery Hand eye coordination	Home learning Hobbies and crafting	PSHE English Maths Science	Knowledge

		Dexterity			
	Evaluation of a product	Being able to record feedback Basic product analysis of a product, identifying improvements	Home learning	PSHE English Maths Science	Knowledge

Year: 7		Term: Spring			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Product Design Pewter Key fob	Health and Safety	Expectations of workshop Use of machines and hand tools.	Home learning KS2 Learning	PSHE English	Knowledge
	Hand Tools and machinery related to Metal work	To be able to name tools To know the process, method and stage of manufacture Function of tools	Home learning Hobbies and crafting	PSHE English Maths	Knowledge
	Mood board	To be able to research, analyse and evaluate relevant images and existing products	KS2 basic instruction Home learning Hobbies and crafting Media Culture	PSHE Science English Maths ICT Art	Knowledge

		<p>suitable to assist with design</p> <p>Identify a client and user</p> <p>Be able to use ICT to collect images and develop presentation skills.</p> <p>Be able to write an evaluation</p>	Design movements		
	Design sheets	<p>To be able to use primary and secondary research, collate results and use these to help with designing.</p> <p>Develop presentation skills</p> <p>Learn iterative design technique</p> <p>To be able to give formative feedback to peers</p>	<p>KS2 basic instruction</p> <p>Home learning</p> <p>Hobbies and crafting</p> <p>Media</p> <p>Culture</p> <p>Design movements</p>	<p>PSHE</p> <p>Science</p> <p>English</p> <p>Maths</p> <p>ICT</p> <p>Art</p>	Knowledge
	Computer Aided Design	<p>To know how to use CAD.</p> <p>Understand the principles of CAD, CAM</p> <p>To know how to use a laser cutter</p> <p>Understand</p>	Own knowledge of computers	<p>ICT</p> <p>Maths</p> <p>English</p>	Knowledge

		<p>the function of a mould</p> <p>One off, batch and Continuous manufacturing</p> <p>Understanding the principles of raised detail/ positive and negative patterns.</p> <p>Using research of images to enhance a design</p> <p>6's of sustainability</p>			
	Manufacturing skills	<p>Develop understanding of different hand tools, using a pillar drill and finishing tools</p> <p>Knowledge of Ferrous, non ferrous and Alloys.</p> <p>Uses of different materials and functions</p> <p>6's of sustainability</p>	<p>Home learning</p> <p>Hobbies and crafting</p>	<p>PSHE</p> <p>Science</p> <p>English</p> <p>Maths</p> <p>ICT</p> <p>Art</p>	Knowledge
	Evaluation	<p>To be able to test and evaluate a finished product using ACCESSFM</p>	<p>KS2 basic instruction</p> <p>Home learning</p> <p>Hobbies and crafting</p>	<p>PSHE</p> <p>Science</p> <p>English</p> <p>Maths</p> <p>ICT</p>	Knowledge

Year: 7		Term: Summer			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Product Design Modelling skills Polymorph Styrofoam Lego MDF Card	Health and Safety	Expectations of workshop Use of machines and hand tools.	Home learning KS2 Learning	PSHE English	Knowledge
	Hand Tools and machinery related to Modelling materials	To be able to name tools To know the process, method and stage of manufacture Function of tools	Home learning Hobbies and crafting	PSHE English Maths Science	Knowledge
	Materials	To know how to use different materials for different outcomes of modelling. Use of modern materials, smart materials. To know the properties of materials Advantages and disadvantages of materials	Home learning Hobbies and crafting	PSHE English Maths Science	Knowledge

		To know how to use different techniques to shape materials.			
--	--	---	--	--	--

Year 8

Year: 8		Term: Autumn			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Product Design Clock	Health and Safety	Expectations of workshop Use of machines and hand tools.	Home learning Year 7	PSHE English	Knowledge
	Mood board	To be able to research, analyse and evaluate relevant images and existing products suitable to assist with design Identify a client and user Be able to use ICT to collect images and develop presentation skills.	Year 7 Home learning Hobbies and crafting Media Culture Design movements	PSHE Science English Maths ICT Art	Knowledge

		Be able to write an evaluation			
	Design sheets	To be able to use primary and secondary research, collate results and use these to help with designing. Develop presentation skills Learn iterative design technique To be able to give formative feedback to peers	Year 7 Home learning Hobbies and crafting Media Culture Design movements	PSHE Science English Maths ICT Art	Knowledge
	Computer Aided Design	To know how to use CAD. Understand the principles of CAD, CAM To know how to use a laser cutter Understand the function of a mould One off, batch and Continuous manufacturing Understanding the principles of raised detail/ positive and negative	Own knowledge of computers Year 7	ICT Maths English Science	Knowledge

		<p>patterns. Using research of images to enhance a design 6's of sustainability To understand the use of templates Accuracy and tolerances Quality of manufacture Finishing skills</p>			
	Hand Tools and machinery related to Polymers	<p>To be able to name tools To know the process, method and stage of manufacture Function of tools Drilling Shaping using hand tools and machines Pop riveting Adhesives Vinyl stickers</p>	Year 7 Home learning Hobbies and crafting	PSHE English Maths Science	Knowledge
	Evaluation	<p>To be able to test and evaluate a finished product using ACCESSFM Give suggested improvement</p>	KS2 basic instruction Home learning Hobbies and crafting	PSHE Science English Maths ICT	Knowledge

Year: 8**Term: Spring**

Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Product Design Passive Speaker	Health and Safety	Expectations of workshop Use of machines and hand tools.	Home learning Year 7	PSHE English	Knowledge
	Mood board	To be able to research, analyse and evaluate relevant images and existing products suitable to assist with design Identify a client and user Be able to use ICT to collect images and develop presentation skills. Be able to write an evaluation	Year 7 Home learning Hobbies and crafting Media Culture Design movements	PSHE Science English Maths ICT Art	Knowledge
	Product board	Primary and Secondary research Analysis of research Point, Evidence and Explain	Year 7	English Maths	Knowledge
	Product	Primary	Home	English	Knowledge

	Analysis	research of mobile phone sizes Client and User identified Evaluation of research to assist with designing Ergonomics Anthropometrics	learning	Maths	
	Design sheets	To be able to use primary and secondary research, collate results and use these to help with designing. Develop presentation skills Learn iterative design technique To be able to give formative feedback to peers	Year 7 Home learning Hobbies and crafting Media Culture Design movements	PSHE Science English Maths ICT Art	Knowledge
	Hand Tools and machinery related to Polymers	To be able to name tools To know the process, method and stage of manufacture Function of tools Drilling Shaping using hand tools and machines	Year 7 Home learning Hobbies and crafting	PSHE English Maths Science	Knowledge

		Timber types Wood joints and fixings Line bender Accuracy and tolerance Finishing techniques Adhesives Vinyl stickers			
	Evaluation	To be able to test and evaluate a finished product using ACCESSFM Give suggested improvements and reasons why	Year 8 Clock Home learning Hobbies and crafting	PSHE Science English Maths ICT	Knowledge

Year: 8		Term: Summer			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Product Design Modelling skills Polymorph Styrofoam Lego MDF Card	Health and Safety	Expectations of workshop Use of machines and hand tools.	Home learning Year 7	PSHE English	Knowledge
	Hand Tools and machinery related to Modelling	To be able to name tools To know the process, method and	Home learning Hobbies and crafting	PSHE English Maths Science	Knowledge

	materials	stage of manufacture Function of tools			
	Materials	To know how to use different materials for different outcomes of modelling. Use of modern materials, smart materials. To know the properties of materials Advantages and disadvantages of materials To know how to use different techniques to shape materials.	Home learning Hobbies and crafting	PSHE English Maths Science	Knowledge

Year 9

Year: 9		Term: Autumn			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Design and Technology Students	Health and Safety	Detailed analysis of working	KS3 Health and Safety termly	English Maths Science	Knowledge

choose Textiles or Timber and Polymers		practice of machines and workshops To be able to identify hazards and precautions To know chemicals and symbols as well as safe use and disposal	Assessment s and Knowledge	PSHE	
	Presentation Skills	Orthographic drawing Isometric drawing 1 point and 2 point perspective Rendering Free hand sketching	KS3 Product Design Art	English Maths Art ICT	Knowledge
	CAD CAM Plywood/ Polymer Mood Light or E-Textiles	Developmen t of 2D design skills. Taught accuracy and tolerance Drawing manufacture d components Using layering for construction drawings Orthographic drawing Scale of drawings	KS3 Product Design	English Maths ICT	Knowledge
	Materials	Methods of manufacture for required materials Finishing	KS3 Product Design	English Maths Science ICT	Knowledge

		techniques for required materials Taught accuracy and tolerance Adhesives Fixing methods			
	Soldering E-Textiles	Skills of soldering E-Textiles	Home learning	English Science PSHE	Knowledge
	Home learning	Sustainability Materials CAD/ CAM	KS3	English Science Geography PSHE	CGP Revision and Work books

Year: 9		Term: Spring/ Summer			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Design and Technology Students choose Textiles or Timber and Polymers	Home learning	Forces Materials manufacturing	KS3	English Science Maths PSHE	CGP Revision and Work books
	Timbers and polymers Storage	Identifying a problem to solve. Client and user. Primary and Secondary research Analysing research, writing evaluation	KS3 Home Learning	English Maths Science PSHE	CGP Revision and Work books Knowledge
		Collecting research on;	KS3 Home	PSHE English	CGP Revision and

		Materials Function Ergonomics Anthropomet rics Client/ User needs	learning	Science Maths	Work books Knowledge
	Materials	Methods of manufacture for required materials Finishing techniques for required materials Taught accuracy and tolerance Adhesives Fixing methods	KS3 Product Design	English Maths Science ICT	Knowledge
	Home learning	Forces Materials manufacturin g	KS3	English Science Maths PSHE	CGP Revision and Work books

Year:10		Term: Autumn/ Spring			
Subject	Topic	Key Knowledg e	Links to prior learning	Wider curriculu m connectio ns	Knowledg e booklet / Quizlet
Design and Technology Students choose Textiles or Timber and Polymers	Practice NEA	Identifying a problem to solve. Client and user. Primary and Secondary research Analysing	Year 9	English Science Maths PSHE	Dynamic Learning

		research, writing evaluation			
		Collecting research on; Materials Function Ergonomics Anthropomet rics Client/ User needs	Year 9	PSHE English Science Maths	CGP Revision and Work books Knowledge
	Materials	Methods of manufacture for required materials Finishing techniques for required materials Taught accuracy and tolerance Adhesives Fixing methods	Year 9	English Maths Science ICT	Knowledge

Year: 10		Term: Summer			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Design and Technology Students choose Textiles or Timber and Polymers	Launch NEA 35hrs	Independent learning	Year 9 and 10	English Science Maths PSHE	Dynamic Learning
	Home learning	ACCESSFM Key words & definitions	KS3	English Science Maths PSHE	CGP Revision and Work books Exam

					Questions

Year: 11		Term: Autumn/ Spring			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet
Design and Technology Students choose Textiles or Timber and Polymers	Launch NEA 35hrs	Independent learning	Year 9 and 10	English Science Maths PSHE	Dynamic Learning
	Home learning	ACCESSFM Key words & definitions	KS3	English Science Maths PSHE	CGP Revision and Work books Exam Questions

Year 11

Spring

Year:		Term:			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet

Year 11

Summer

Year:		Term:			
Subject	Topic	Key Knowledge	Links to prior learning	Wider curriculum connections	Knowledge booklet / Quizlet