Subject						
	Autumn 1	Autumn 2	Spring 3	Spring 4	Summer 5	Summer 6
	 Boat Project Correctly use marking out tools. Correct wasting of materials using hand tools, the pillar drill and belt linisher. Finishing techniques of a piece of timber. Sketching with the isometric method of akatabiag 	 Electronics Module 1 Introduction to procedures when working practically in room 29. Components, circuit symbols and function. Resistor colour bands Circuit design software and use of gallery's Use of basic tools and oquimment in 	 <u>Clock Design</u> Sketching in 1 point and 2-point perspective 3D Isometric representation of designs CAD – Solidworks Use of scissors to produce templates for their clocks 	 USB Image Vectorisation and editing of images in 2D Design Designing to size and scale using 2D Design as a result of constraints Assembly of acrylic to create prototypes 	 Electronics Module 2 Tools and equipment familiarisation Different types of solder joints Correct soldering techniques Develop a wider understanding of electronic production 	 Clock Manufacture Understand workshop procedures Correct selection of tools and equipment when working with acrylic Correct finishing techniques on acrylic Understand the purpose of files Use of adhesive to join
Year 7	 sketching. Correct selection of tools and equipment for the correct purpose. Clock Design Sketching in 1 point and 2-point perspective 3D Isometric representation of designs CAD – Solidworks Use of scissors to produce templates for their clocks 	 equipment in electronics Use of Solidworks to communicate design ideas Breadboarding and its purpose Health and safety when working practically Boat Project Correctly use marking out tools. Correct wasting of materials using hand 	Use of Solidworks to communicate design ideasIntroduction to procedures when working practically in room 29.Understa proceduBreadboarding and its purpose Health and safety when working practicallyCorrect : components, circuit symbols and function.Correct : tools and acrylicWorking practicallyComponents, circuit symbols and function.Correct : tools and equipment in electronicsat Project Correctly use marking out tools.Use of Solidworks to correct wasting ofUse of Solidworks to communicate design	 procedures Correct selection of tools and equipment when working with acrylic Correct finishing techniques on acrylic Understand the purpose of files 	 USB ➢ Image Vectorisation and editing of images in 2D Design ➢ Designing to size and scale using 2D Design as a result of constraints ➢ Assembly of acrylic to create prototypes Clock Manufacture ➢ Understand workshop procedures 	 Use of adhesive to join pieces of acrylic <u>Electronics Module 2</u> Tools and equipment familiarisation Different types of solder joints Correct soldering techniques Develop a wider understanding of electronic production
	 Electronics Module 1 Introduction to procedures when working practically in room 29. Components, circuit symbols and function. Resistor colour bands Circuit design software and use of gallery's 	 tools, the pillar drill and belt linisher. Finishing techniques of a piece of timber. Sketching with the isometric method of sketching. Correct selection of tools and equipment for the correct purpose. 	 Breadboarding and its purpose Health and safety when working practically Boat Project Correctly use marking out tools. Correct wasting of materials using hand 	 Electronics Module 2 Tools and equipment familiarisation Different types of solder joints Correct soldering techniques Develop a wider understanding of electronic production 	 Correct selection of tools and equipment when working with acrylic Correct finishing techniques on acrylic Understand the purpose of files Use of adhesive to join pieces of acrylic 	 USB ➢ Image Vectorisation and editing of images in 2D Design ➢ Designing to size and scale using 2D Design as a result of constraints ➢ Assembly of acrylic to create prototypes

Design and Technology Key Stage Three Curriculum Map – Carre's Grammar School

	 Use of basic tools and equipment in electronics Use of Solidworks to communicate design ideas Breadboarding and its purpose Health and safety when working practically 	 <u>Clock Design</u> Sketching in 1 point and 2-point perspective 3D Isometric representation of designs CAD – Solidworks Use of scissors to produce templates for their clocks 	 tools, the pillar drill and belt linisher. Finishing techniques of a piece of timber. Sketching with the isometric method of sketching. Correct selection of tools and equipment for the correct purpose. 			
	Assessment Assessment using the Assessment Sticker Review of any practical outcomes		Assessment Assessment using the Asses Review of any practical outcome Year 7 Socrative Interim Ass Spring 4 USB use of Assessment stic USB practical outcome Clock Manufacture practical Electronics Module 2 use of Electronics Module 2 practic	omes essment at the beginning of ker Outcome Assessment sticker	Assessment End of Year Examination in Summer 6 USB use of Assessment sticker USB practical outcome Clock Manufacture practical Outcome Electronics Module 2 use of Assessment sticker Electronics Module 2 practical outcome	
Year 8	 Pendant Metal classification, identification and associated processes Further opportunity to sketch Further opportunity to use Solidworks to 	 Electronics Module 1 ➢ Knowledge of programming ➢ Wider understanding of components and circuits symbols ➢ Designing within a context, to include sketching and CAD 	Vase Project ➤ Non-Verbal Skills ➤ Translating 2D to 3D images ➤ Sketching ➤ Knowledge of design movements/existing products	Lamination Project ➤ Use of templates ➤ Knowledge of the make- up of a lamination ➤ Use of forms during lamination ➤ Consolidation of workshop practices	 Electronics Module 2 ➢ Research into tools and equipment associated with PCB production ➢ Component identification ➢ Designing using 2D Design ➢ Isometric sketching 	 Presentation Module ➢ Sketching and rendering techniques: to include: perspective, isometric and oblique sketching ➢ Development and enrichment of designs using Solidworks

Design and Technology Key Stage Three Curriculum Map – Carre's Grammar School

 Vase Project Non-Verbal Skills Translating 2D to 3D images Sketching Knowledge of design movements/existing products Use of tools and 	 produce a developed outcome Use of traditional methods to create a prototype to inform a final design Casting process in school Finishing of metals 	 symbols Designing within a context, to include sketching and CAD Pendant > Metal classification, 	 sketching Development and enrichment of designs using Solidworks Translation of views from Solidworks into 2D Design Presentation of designs to class 	 Consolidation of workshop practices Use of tools and equipment Finishing of timber Presentation Module Sketching and rendering techniques: to	 with PCB production Component identification Designing using 2D Design Isometric sketching Soldering Programming of a PCE
 See of tools and equipment to create 3D iterations of designs Electronics Module 1 Knowledge of programming Wider understanding of components and circuits symbols Designing within a context, to include sketching and CAD 	 Vase Project Non-Verbal Skills Translating 2D to 3D images Sketching Knowledge of design movements/existing products Use of tools and equipment to create 3D iterations of designs 	 Interactions in catori, identification and associated processes Further opportunity to sketch Further opportunity to use Solidworks to produce a developed outcome Use of traditional methods to create a prototype to inform a final design 	 Electronics Module 2 Research into tools and equipment associated with PCB production Component identification Designing using 2D Design Isometric sketching Soldering Programming of a PCB 	 include: perspective, isometric and oblique sketching Development and enrichment of designs using Solidworks Translation of views from Solidworks into 2D Design Presentation of designs to class 	 Lamination Project Use of templates Knowledge of the make up of a lamination Use of forms during lamination Consolidation of workshop practices Use of tools and equipment Finishing of timber

Design and Technology Key Stage Three Curriculum Map – Carre's Grammar School

	Assessment using the Assessment Sticker Review of any practical outcomes		Assessment using the Assessment Sticker Review of any practical outcomes ************************************		End of Year 8 Examination Assessment using the Assessment Sticker Review of any practical outcomes ************************************	
			Electronics Module 2 use of Assessment sticker Electronics Module 2 practical outcome		Electronics Module 2 use of Assessment sticker Electronics Module 2 practical outcome	
Year 9	 Manipulation of images in 2D Design into workable format using the laser cutter Modelling of design intentions in card Material manipulation Finishing Techniques Architectural Design – Outdoor Designs 2D planning layouts Modelling using perspective Architectural design considerations Use of 3D CAD to produce a developed outcome Manipulation of images Intention of the second perspective Modelling of design perspective Modelling of design intentions Modelling of design perspective Modelling of design intentions 	washing timer hvestigating context of and washing and oronavirus hvestigating motors concept designing Practical assembly of n advanced circuit Evaluation / Testing – Practical tests are ecorded.Architect Outdoor > 3D s pers > Arch cons > Use prod outcu > Use prod outcu > Use prod outcu > Nanipulation of images n 2D Design into vorkable format using ne laser cutter Modelling of design ntentions in card aminating of timber Material manipulationArchitect Outdoor > 3D s pers > Arch cons > Use prod outcu > Use prod outcu > Dractical tests are ecorded.	ctural Design – Product r Designs Investigation planning layouts > sketching using > sketching using > sketching using > siderations > e of 3D CAD to > duce a developed > shing timer > estigating context of > d washing and > onavirus > estigating motors > ncept designing > ctical assembly of advanced circuit uluation / Testing – ctical tests are	duct Design and estigation Looking at products and investigating materials, form & Function 2D & 3D Sketches looking at simplifying and developing presentation skills Cross section diagrams to look at product assembly/disassembly Design of a Concept product Use of CAD to model a concept product (Lockdown Variation) To model or sculpt from materials available at home	 Product Design and Investigation ▷ Looking at products and investigating materials, form & Function ▷ 2D & 3D Sketches looking at simplifying and developing presentation skills ▷ Cross section diagrams to look at product assembly/disassembly ▷ Design of a Concept product ▷ Use of CAD to model a concept product ▷ (Lockdown Variation) To model or sculpt from materials available at home 	 Product Design and Investigation > Looking at products and investigating materials, form & Function > 2D & 3D Sketches looking at simplifying and developing presentation skills > Cross section diagrams to look at product assembly/disassembly > Design of a Concept product > Use of CAD to model a concept product > (Lockdown Variation) To model or sculpt from materials available at home
	Handwashing timer➤Investigating context of hand washing andArchit Outdo	tectural Design – Mood lig por Designs > Man	>	ctronic Dice Research context of board games. Research 'EVIL CRAB'. Concept designing and generating aesthetic	 Electronic Dice ➢ Research context of board games. ➢ Research 'EVIL CRAB'. ➢ Concept designing and generating aesthetic 	 Electronic Dice ➢ Research context of board games. ➢ Research 'EVIL CRAB'. ➢ Concept designing and generating aesthetic

3D sketching using Concept designing \geq workable format using features for features for features for \geq \geq Practical assembly of perspective the laser cutter manufacture. manufacture. manufacture. \triangleright Practical assembly of an advanced circuit Architectural design \triangleright Modelling of design Practical assembly of \geq \geq Practical assembly of \geq Evaluation / Testing considerations intentions in card an advanced circuit. an advanced circuit. an advanced circuit. Practical tests are \geq Use of 3D CAD to \triangleright Laminating of timber Practical demonstration \geq Practical demonstration \geq Practical demonstration \geq recorded. Material manipulation of vacuum forming. of vacuum forming. of vacuum forming. produce a developed \geq \triangleright **Finishing Techniques** Evaluation / Testing. \geq Evaluation / Testing. \geq Evaluation / Testing. outcome Mechanisms/Movement Mechanisms/Movement Mechanisms/Movement \geq Identification of the 4 \geq Identification of the 4 \geq Identification of the 4 types of movement. types of movement. types of movement. Sketched examples. Sketched examples. Sketched examples. Real world examples. Real world examples. Real world examples. \triangleright Classification of Levers Classification of Levers \geq Classification of Levers Sketched examples. Sketched examples. Sketched examples. Real world examples. Real world examples. Real world examples. \geq Identification of simple \geq Identification of simple \triangleright Identification of simple Cams and Followers. Cams and Followers. Cams and Followers. Real world examples. Real world examples. Real world examples. Sketches of movement. \geq \geq Sketches of movement. \geq Sketches of movement. \triangleright \triangleright Simple models of \geq Simple models of Simple models of movement. Effort, Load, movement. Effort, Load, movement. Effort, Load, Fulcrum, Pivot points. Fulcrum, Pivot points. Fulcrum, Pivot points. Design/manufacture Design/manufacture Design/manufacture \triangleright \triangleright \geq (depending on covid (depending on covid (depending on covid restrictions) of a simple restrictions) of a simple restrictions) of a simple Automata. Automata. Automata. Assessment Assessment Assessment AFL AFL AFL Verbal Verbal Verbal Continuous Continuous Continuous Students as teachers Students as teachers Students as teachers Assessment Stickers Assessment Stickers Year 9 Examination

Design and Technology Key Stage Three Curriculum Map – Carre's Grammar School

Additional explanation if required.