Holy Family Catholic School – Faculty of Mathematics

Subject – Design Technology Half-Term 1 Year 7

Learning Intention	Vocab	Concept	Retrieval	Hinge Question	Success Criteria	Red Zone
Week 1 Presentation techniques in Technology	2D, 3D, Shading	Realistic drawing	Flat and realistic Transitions Basic shapes	When producing a 3D design drawing to clearly communicate how a product will look, which drawing method is most appropriate?	I can recognise the difference between 2D and 3D shapes I can use a pencil to produce a range of monochrome shades I can use shading techniques to describe 3D forms	Complete the worksheet on shading using Dark, Medium and Light tones
Week 2 Material properties - Woods	Hardwoods, Softwoods Manufactured boards	Material properties	Woods Materials properties	Which type of wood is best suited for making a strong, durable outdoor bench?	I can recognise and define a hardwood and a softwood I can describe how manufactured boards are produced I can discuss the properties of hardwood and softwoods	Complete the worksheet regarding hardwood, softwood and manufactured boards.
Week 3 Understanding design briefs and producing initial Ideas	Design brief, sketch, colour, annotation	Producing ideas	Sketching, Presenting ideas	What is the main purpose of producing initial ideas during the design process?	I understand how to interpret a design brief I can generate initial ideas	Complete the worksheet to produce 2 initial ideas and one 3d idea

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Week 4 Understanding the role of modelling and CAD/CAM in DT	CAD, CAM, Modelling, Automation	Computer controlled modelling	Computers CAD, CAM, Modelling, Automation	Why do designers and manufacturers commonly use CAD/CAM when making products?	I can describe why we use modelling in DT I can explain the uses of CAD/ CAM in technology	Produce a CAD drawing using the program Techsoft 2DDesign
Week 5 Staying safe in the workshop	Health and Safety, PPE, Injury, workshop rules.	Health and Safety in the workshop	Safety, machinery, PPE, behaviour	Which behaviour shows the *correct* safe practice when using tools in the workshop?	I can explain the importance of health and safety in the workshop I can describe the safest way to use tools and machinery I am aware of the effect of my behaviour on everyone's health and safety in the workshop.	Design a pictogram related to health and safety in the workshop
Week 6 Applying practical skills - marking and measuring	Rulers, tri - squares, mm, cm, waste	Marking and measuring in the workshop	Rulers, cm and mm, dimensions, accuracy	I can apply health and safety rules in a practical lesson I can select and use rulers and tri-squares I can indicate the waste prior to cutting wood	What is the main reason for sanding wood before applying a finish? A. To make the wood heavier B. To remove rough surfaces C. To change the colour of the wood	Proceed with your practical work and demonstrate appropriate health and safety skills and behaviours

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Week 7 How to apply practical skills – Cutting tools and techniques	Cutting, shaping, saws, drills and files	Using cutting tools to produce prototypes	Tools, safety, techniques	I can apply health and safety rules in a practical lesson I can select and use appropriate cutting tools I am aware of common errors when using cutting tools	Which joining method is best for a temporary connection? A. Screws B. PVA glue C. Nails	Proceed with your practical work and demonstrate appropriate health and safety skills and behaviours
Week 8 Applying practical skills – Cutting tools and techniques (continued)	Cutting, shaping, saws, drills and files	Using cutting tools to produce prototypes	Tools, safety, techniques	I can apply health and safety rules in a practical lesson I can select and use appropriate cutting tools I am aware of common errors when using cutting tools	Which tool should you use to ensure your wood is cut at a perfect 90° angle? A. Coping saw B. Tenon saw C. Junior hacksaw	Proceed with your practical work and demonstrate appropriate health and safety skills and behaviours