



Scheme of Learning

Year: 9

Unit: Engineering

Sequence 1: Orthographic drawing	Sequence 3: Manufacturing	Sequence 3: Programming	Sequence 4: Evaluation
<ul style="list-style-type: none"> • Rescap - various drawing methods employed by technologists; <ul style="list-style-type: none"> ○ 2d Drawings ○ 3D drawing ○ Isometric ○ Oblique ○ Orthographic ○ Assembly • Understand the concept of orthographic drawing – front, end and plan view • Know how to use drawing equipment to create orthographic drawings 	<ul style="list-style-type: none"> • Understand different types of wood joints and be able to manufacture a half lap joint • Marking out; Introduction to tools used for marking out with emphasis on accuracy and quality control. • Introduction to tenon saw and how to use correctly and skilfully. • Introduction to belt sanding and why it is used. • Research into various other methods of joining different materials. Study of specific joining methods; <ul style="list-style-type: none"> ○ PVA gluing ○ Pinning ○ Use of dowels ○ Screws and bolts • Nuts and wing nuts 	<ul style="list-style-type: none"> • Research the purpose and different types of micro controllers • Understand the concept of programming micro controllers • Be able to use PIC logicator to program a micro controller 	<ul style="list-style-type: none"> • Evaluating completed products by comparing to the initial design or technical specification. • Identifying positive and negative aspects of pupil work and suggestions as to how to improve next time round. • Summative assessment of learning for this carousel.
Interleaving:		Deeper Learning:	Formative Assessment:
Pupils will develop practical skills transferable to everyday life. They will understand the different classifications of timbers and be able to identify these in the outside world. Pupils will understand		Using higher level tier 3 vocab & terminology resulting in understanding specific tools, skills and vocabulary specific to technology. Opportunity to investigate new and emerging	Constant formative assessment via teacher feedback, both verbal and written, within the lessons and homelearning tasks.



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the dangers and health and safety risks present when performing practical tasks not just in school but at home too. Pupils will improve their 3d sketching skills which should transfer to their studies in other subjects in particular art. Pupils will be able to understand the need to evaluate products and be given the skills to be able to undertake their own analysis and evaluations.

technologies as well as how technology affects different cultures.

Opportunities for self and peer assessment.