Year 7 Technology

Curriculum Leader: Mr Steve Finch

Our vision is to raise the achievement of all pupils and give them the opportunity to be creative and ambitious while enjoying and learning new skills and knowledge.

Topics to be covered in Year 7

Students will rotate throughout the school year, completing modules on CAD/CAM, Food Preparation and Nutrition, Design Technology and Textiles.

	CAD/CAM	FP&N	DT	Textiles
Topics to be covered	• Computer Aided Design (CAD) – Use of 2D design • Computer Aided Manufacture (CAM) – how CAD designs are modified to use Laser cutter. • CAD/CAM in industry • Orthographic and isometric drawing • Shaping and finishing metals using hand tools • Chocolate bar.	• Basic Health and Safety • Food Hygiene • Healthy Eating • Food Science • Food Provenance and food miles • Basic practical skills.	• Categories of Woods and Plastics. • Appropriate cutting tools • Accurate marking out • Use of a pillar drill • Use of a bench mechanical sander • Finishing of wood and plastic • Shaping thermo plastics with heat • H&S in a workshop • Working characteristics of wood and plastic.	• Design skills • Hand sewing • Setting up and using a sewing machine • Use of the different stitches • Basic practical skills • Textiles in everyday life and industry • Health and safety.
Key vocabulary	• Computer Aided Design (CAD) • Computer Aided Manufacture (CAM) • Orthographic • Isometric • Tangent • Perpendicular • Pewter • Alloy.	• Hygiene • Cross Contamination • Food Poisoning • Enzymic Browning • Equipment • Ingredients • Temperature • Food Provenance • Eatwell Guide.	• Coniferous wood • Deciduous wood • Thermo and Thermosetting plastic.	• Names of materials and equipment: • Bobbin/bobbin case/ sewing machine • Fabric shears • Needle • Pins • Threads • Cotton • Buttons • Felt • Hemming, running stitch, back stitch, seam allowance.
Skills to be developed	• Knowledge and skills when using 2D design software. • Knowledge of isometric and orthographic drawing and how to use them to draw objects when designing. • Skills used to develop designs using CAD that can be transferred to a laser cutter for mould construction. • Knowledge and skills that allow students to shape and refine metal.	• Understand the importance of hygiene in preventing food contamination. • Use the guidelines for Healthy Eating to analyse their diet and the diet of others. • Knowledge of why some fruits and vegetables deteriorate when exposed to air. • Develop basic practical skills to enable them to prepare both sweet and savoury foods. • Measure and weigh ingredients with accuracy.	• Correct selection and use of marking out and cutting tools • Safe use of Drilling, sanding (belt and/or disc) machines and tools • Accuracy in marking out and cutting materials (plastic and wood) • Understanding of materials (woods and plastics) and their limitations during design and manufacture of products. • Safe working practice.	• Correct selection and used of marking out, cutting and sewing equipment. • Designing and annotating designs. • Setting up of the sewing machine and how to use it safely. • Accuracy of making including: development of cutting, hand sewing and finishing skills. • Safe general working practice. • Knowledge of fabrics and properties of.

	CAD/CAM	FP&N	DT	Textiles
Skills to be developed (cont'd)		• Cut and prepare foods with accuracy. • Safe working practice in the food room. • Use knowledge of healthy eating to design a layered salad.	• Correct selection and use of hand tools • Safe use of battery hand drills	• Widen knowledge of textiles in everyday life and industry.
Opportunities for revisiting previous learning	• Safe workshop practice • Accuracy in the use of hand tools	• Healthy Eating • Accuracy in the use of basic equipment. • Working safely.	• Safe workshop practice • Accuracy in the use of hand tools	• Safe workshop practice. • Use of the sewing machines • Development of accuracy and Safe use of other equipment in textiles.
When will formal assessment of progress take place?	1. Formal project assessment at the end of the module of work. 2. Summative test at the end of the module.	1. Formal project assessment at the end of the module of work. 2. Summative test at the end of the module.	1. Formal project assessment at the end of the module of work. 2. Summative test at the end of the module.	1. Formal assessment of design ideas, WWW/EBI) and response In green pen. Mid project mark. 2. Summative test at end 3. Assessment of practical at end.

Year 7 Useful Resources

Website Links

www.bitesize.co.uk

Marking, Assessment and Feedback

Over the course of an academic year students will complete a number of formal assessments, these will be used to assess where students are in their learning journey.

Information from these assessments could be used when making decisions regarding setting of students, reporting progress home and predicting outcome. Regular verbal feedback is used in lessons to inform students of their progress and areas they can improve. Teachers will continue to provide planned written feedback on selected pieces of work.

Homework

Homework will be set using the online platform Go 4 Schools.

Homework tasks are designed to prepare students for future learning or consolidate work completed in the classroom. It will be clear what should be handed in, when it should be handed in and how it should be handed in.

Contact Information:

If you would like to contact the Design and Technology Department please email: design@gilberd.com.

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