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| This half term: Skills, Knowledge and Understanding to be developed: | | Key Terms / Words: | | |
| <ul style="list-style-type: none"> SKILLS: Each individual will be able to use the iterative design process to design and make a light project. KNOWLEDGE: Students will understand and know about the processes of using jigs, wooden joints and Lathe turning. UNDERSTANDING: Students will show their understanding by designing, developing and manufacturing a light project. <p style="color: red; font-style: italic;">It must be noted that due to the practical nature of this module that all students are working at a different pace so some changes to the Learning programme is inevitable.</p> | | Brief, Specification, Quality control, Tolerance, Samples, Drawing, Tools, Saw, Attach, Shaping, Calculations, Laser Cutter, Dovetail, Lathe Turning, Pineboard, Innovative, Joining, Jig, Joints, Adhesives. | | |
| Week 1 Learning Outcomes: | <p>1. Students will.....understand about different wood finishes i.e. varnish, wax, paint, oil, wood dye, stain, Danish oil and Wood Preservative. They will also learn about how to prepare and finish wood using different grades of glass paper. To demonstrate their understanding, they will explain the different properties and uses for their practical samples.</p> <p>2 & 3. Students will.....understand and learn about the processes used to create, process and construct/produce man-made boards. They will then be able to recognise Manufactured woods and explain their properties and uses by logging them down. An online video example will also need to be viewed for further understanding and own notes produced via a mind map.</p> <p>They will also learn about the different forms that wood can be sourced in e.g. planks, board, strip, dowel etc. They will log all findings of different forms via a mind map and add diagrams to show their understanding.</p> | Success Criteria: | Homework W1 | |
| <p>1. Understand about different finishes and how to prepare products to be finished</p> <p>2. Understand the importance of knowing how to manufacture different types of materials and the type of stock forms materials come in</p> | Week 2 Learning Outcomes: | Success Criteria: | Homework W2 | |
| <p>4. Students will.....understand about different types of knock Down Fittings (KDF's). They will read information based on the fittings and match them to the KDF's given as a sample. They will show their understanding by explaining where they are used and for what and sketch how they work. Students will use / practice on different KDF joints. Students will understand the difference between permanent and temporary joints.</p> <p>5. Students will.....understand about different types of wooden joints. They will read information based on the joints and match them to the wooden joints given as a sample. They will show their understanding by explaining where they are used and for what and sketch how they join together.</p> | <p>1. Understand about different fixtures, fittings and joints.</p> <p>2. Understand the importance of knowing how to join different types of wood and which is the most suitable.</p> | Week 3 Learning Outcomes: | Homework W2 | |
| <p>6. Students will.....understand about the different types of jigs available to complete practical wooden tasks. Students will complete a task on designing a jig to be used when drilling. Students will be shown different types of jigs used in a school workshop. They will think about designing their own jig for a drilling / cutting task.</p> <p>7. Students will.....understand about methods of drilling and marking out materials. Students will be shown the different types of drills available to use in school and will understand how to use them safely. They will also demonstrate how to change the bits and know about the different bits available to use. They will also know about pilot, clearance and countersink holes.</p> <p>8. Students will.... Students will.....undertake their Year 10 exam covering all the theory aspects studies so far.</p> | <div style="text-align: center;">  <p><u>Summative Assessment:</u> Year 10 Examination</p> <div style="border: 1px solid blue; padding: 2px; display: inline-block;">Summative Assessment:</div> <div style="border: 2px solid red; padding: 5px; margin-top: 5px;">Grade:</div> </div> | <p>1. They will be able to understand what a jig is and how it eases the manufacturing process.</p> <p>2. They will be able to understand about different types of drilling and the importance of H & S.</p> <p>3. They will undertake their Exam and will use the knowledge previously learnt about jointing to start producing their own joints.</p> | <p>Research task – Airbus UK</p> | |
| Week 4 Learning Outcomes: | <p>9. Students will.....undertake their APP</p> <p>10. Students will.... know about different wooden joints and their strengths and</p> | <div style="text-align: center;">  </div> | Success Criteria: | Homework W4 |
| <p>1. They will understand about different joints /</p> | | | | |

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| <p>weaknesses. Students will start to practice different joints: mitre, dowel, mortise and tenon, halving, bridle joint and dovetail. Students will measure, mark, cut and shape the joints to fit using the correct tools and equipment. (or be given a demonstration and record their findings in their sketchbooks) Students will understand the different properties of the joints and log down the steps undertaken in their sketchbooks using a Mind Map.</p> | <p>Write an essay about a studied company – Airbus UK</p> <div style="border: 1px solid blue; padding: 2px; display: inline-block; margin: 5px;">APP</div> <div style="border: 1px solid red; padding: 2px; display: inline-block; margin: 5px;">Grade:</div> | <p>formers ready to produce their own wooden joints.</p> | |
| <p>Week 5 Learning Outcomes:</p> <p>11, 12 & 13. Students will.....understand the criteria for the new unit by being given a design brief to work from. Students will demonstrate their thinking skills by Mind Mapping ideas for their Light. Students will need to consider the following statements – Who / What / When / Where / Why. They will need to summarise their choices and design 1-2 ideas for their light.</p> | | <p>Success Criteria:</p> <ol style="list-style-type: none"> 1. Understand what a Design Brief is. 2. Understand the importance of knowing who their client is and how it will shape their designing. 3. Understand what is meant by iterative design. | <p>Homework W5</p> |
| <p>Week 7 Learning Outcomes:</p> <p>14 & 15 Students will....know how a lathe is used to turn materials and a Milling machine to create a slot / edge. They will be shown how to set it up and plane the material ready for turning. They will need to record the work in their sketchbooks as theory. Students will learn about The principles of producing wood products using the following processes: jointing, veneering, laminating and steam bending.</p> | | <p>Success Criteria:</p> <ol style="list-style-type: none"> 1. They will understand about wood turning and how the lathe is used. | <p>Homework W7</p> |

This programme is subject to change.