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**Knowledge Rich Curriculum Plan**

Year 8 Storage box



| **Lesson/Learning Sequence** | **Intended Knowledge:**  *Students will know that… Students will know how to…* | **Tiered Vocabulary** | **Prior Knowledge:**  *In order to know this students, need to already know that…* | **ADT Interleaving Opportunities** | **Assessment** |
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| **User centred design** | * *Develop and understanding of the term User Centred Design User Centred Design is a method in which a designer which specify their design for a particular person or cohort* * *To design products to be specific to a individual or group of people* * *How to identify a clients needs and wants to better understand their requirements for the product.* | Consumer: a person who purchases goods and services for personal use  User Centred Design: a method in which a designer which specify their design for a particular person or cohort | The term client is in reference to the person the product is designed for  The understanding of people’s basic needs and wants in terms of product design |  | Recall/activate starter  Application plenary |
| **Practical 1: Cutting the storage parts** | * Measure and mark out a cutting list using the appropriate tools (steel rule, try square and pencil) * Cut out the lamp parts using traditional woodwork tools (tenon saw, bench hook) * Sand and file the edges of the material to ‘ease’ (soften) newly cut material | Accurate: correct in all details | The basic safety and marking processes for a woodwork activity |  | Recall/activate starter  Cold call questioning |
| **Client profile** | * The definition of CLIENT in this context: A person who has commissioned you with designing and making a product * How to design and manufacture a product for a specific person * How to meet a clients needs and wants when designing a product | Commissioned: an instruction, command, or role given to a person or group  Client: A person who has commissioned you with designing and making a product | Understand how to design for specific needs  The basics of colour and design |  | Recall/activate starter  Cold call quiestioning  SSS assessment |
| **Practical 2: Marking out bridle joint** | * How to use different wooden joints to join together timber * Understand the difference between a Bridle Joint and other joints used previously * Understand how a carpenter’s knowledge will apply to the application they are using. | Accuracy: the quality or state of being correct or precise.  Wooden joint: a part of woodworking that involves joining pieces of wood, engineered lumber, or synthetic substitutes, to produce more complex items. fasten or assemble building material, furniture, or equipment | Basic safety knowledge from using workshop tools and equipment | ­­ | Recall/activate starter  Cold call questioning |
| **Practical 3: Cutting and Quality control** | * Know how to create Quality Control in a product * Know how to use cutting tools such as Tenon saw and Coping saws * Know how to use the different types of saw for different cutting techniques | Equipment: set of tools or other objects commonly used to achieve a particular objective.  Quality Control: a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the client or customer. | Know the basics of cutting tools and how they are performed.  Know the term Quality and have an idea of its meaning. |  | Recall/activate starter  Application plenary |
| **Practical 4: Quality control and finish** | * Know how to correctly apply a surface finish to a product * Know how to apply s smooth surface finish using sandpaper * Know that a surface finish is applied to help protect the material from corrosion or rotting. | Surface treatment: the process of embellishing and/or protecting the surface of a wooden material. | Be able to identify the smooth surface based upon the material finish  Know how to use finish techniques such as sand paper and disc sander |  | Recall/activate starter  Cold call questioning |
| **Practical 5: CAD tutorial** | * To understand how to use CAD software * Know the differences between CAD and CAM * To understand the purpose of CAD and designing | CAD: Computer aided design is a method used to design using computers | Know the basics of computing |  | Recall/activate starter  Application plenary |
| **Practical 6: CAD and CAM** | * Know how to use a variety of different CAD software * Understand how CAD designs are translated to CAM * How CAM (computer aided manufacture) supplements the design process * Advantages of CAM (accurate, consistent, easy to edit/correct) | CAM: Computer aided manufacture is a method used to manufacture using computers  CAD: Computer aided design is a method used to design using computers | Be able to identify health and safety aspects of using the laser cutter  Be able to understand how the laser cutter works |  | Recall/activate starter  Cold call questioning |
| **Practical 7: Assemble** | * How to construct a product using pins and screws * Know how to use pin hammers safely and accurately * Know how to assemble together a product | Assemble: fit together the separate component parts of (a machine or other object).  Quality assurance: the maintenance of a desired level of quality in a service or product | Have a basic understanding of workshop safety and processes |  | Recall/activate starter  Cold call questioning |