



## Jerry Clay Academy Subject Knowledge Organiser

Subject: D&T Year Group: 3 Term: Spring

### Core Learning of This Unit:

The children will create a **solid structure with joins** as part of their **What is community? theme**.

As part of this, pupils will be able to select tools and techniques for making their product; measure, mark out, cut, score and assemble components with more accuracy; work safely and accurately with a range of simple tools; think about their ideas as they make progress and be willing change things if this helps them improve their work as well as use finishing techniques strengthen and improve the appearance of their product using a range of equipment.

When researching, use the term 'questionnaire' to generate ideas for an item, considering its purpose and the user/s ; identify a purpose and establish criteria for a successful product; explore, develop and communicate design proposals by modelling ideas; Make drawings **with labels** when designing. Specific teaching of different wood types should occur in this unit (MDF, Pine, Plywood)

### Prior Learning:

- Begin to select tools and materials; use vocab' to name and describe them
- Measure, cut and score with some accuracy
- Use hand tools safely and appropriately
- Assemble, join and combine materials in order to make a product
- Follow safe procedures for food safety and hygiene
- Choose and use appropriate finishing techniques

### National Curriculum Statements:

- generate, develop, model and communicate their ideas through discussion, annotated sketches
- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- build structures, exploring how they can be made stronger, stiffer and more stable

### Key Vocabulary:

Aesthetics  
Design brief  
Function  
Questionnaire  
Components  
Progress  
Adjust  
Alter  
Tape  
Preparation  
Strengthen  
Dowel  
MDF (Medium density fibreboard)  
Plywood  
Pine  
Screwdriver  
File  
Joint

### Significant People

- **William Mason (1925) accidentally invented hardboard (compressed fibreboard)**  
In 1925, William Mason, an inventor and friend of Thomas Edison, made it his mission to find a use for the huge amount of leftover wood chips and shavings that lumber mills discarded. But when he forgot to shut down his equipment one evening, his machinery continued working, turning the wood chips into a thin, durable sheet.