



## Jerry Clay Academy Subject Unit Overview

Subject: D&T Year Group: 6 Term: Summer

### Core Learning of This Unit:

The children will create a **clock** as part of their Transition **theme**.

As part of this, pupils should be able to Select appropriate tools, materials, components and techniques; assemble (and disassemble) components make working models; use tools safely and accurately; construct products using permanent joining techniques; make modifications as they go along

The result will be that the children can achieve a quality product, which has been modified and adapted using a working drawing and specific work plan. This should be referenced using a sequential diagram (flow chart).

### Prior Learning:

- Draw up a specification for their design
- Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making

if the first attempts fail

- Use results of investigations, information sources, including ICT when developing design ideas
  - Select appropriate materials, tools and techniques
  - measure and mark out accurately
  - use skills in using different tools and equipment safely and accurately
  - cut and join with accuracy to ensure a good-quality finish to the product.

### National Curriculum Statements:

- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- 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
  - explore and use mechanisms in their products

### Key Vocabulary:

Pie chart  
Disassembly  
Dismantle  
Engineering  
Mock up  
Orthographic  
Prototype  
Sequential diagram  
Construct  
Destruct  
Mechanism  
Modification  
Reclaimed materials  
Rivet  
Solder  
Framework  
Work plan  
Working drawing  
Orthographic (object drawn from 3 different views – front, end, aerial)

### Significant People

- Warren Morrison and J.W.Horton (designers of the first Quartz clock)
- William Clement (British grandfather clock designer – 1860) Use of anchor escapement system
- Hans Wilsdorf (founder of Rolex watches)