Moor First School

Year 3 and 4
Autumn block
Cycle B

Moor First Design and Technology Knowledge Organiser
Topic Covered: Mechanical Systems- Evaluate Levers and Linkages

WEAVING CONCEPTS

Mechanisms | Practical Knowledge | Design Inspiration | Technical Knowledge | Health & Safety | Design Process

What should I already know:

- How to design products with a purpose.
- How to evaluate my product by identifying the strengths and weaknesses and by assessing how closely it meets the success criteria.
- How to use a range of tools and materials to make my product.
- How to build simple structures and understand mechanisms such as levers, sliders and wheels.

Key Vocabulary	
Force Effort	It can be applied in order to lift the load. For example the person that sits opposite you on a seesaw is applying a force effort in order to lift you (the load).
Load	The load could be a wooden ball or a clay ball. It could however, be a stone or cannon ball. As the load is ejected from the catapult it becomes a projectile.
Innovation	Catapults were designed as an innovative way to fire a heavy projectile further than it had been previously.
Fulcrum	The point that the dowel or a beam rotates on. It is also known as a pivot point.

Jacques De Vaucanson – 1709- 1782

Jacques De Vaucanson was a French inventor and artist who built the first all metal lathe which was very important to the industrial Revolution. The lathe is known as the mother of machine tools, as it was the first machine tool that subsequently led to the invention of other machine tools. He was the first person to design an automatic loom.

Sticky Knowledge:

- I will be able to use appropriate tools to create a catapult to load.
- I will be able to show my ideas through diagrams and pictures.
- I will be able to use linkages to make movements bigger.