

## DT Knowledge Organiser

**Key Enquiry Question:** What is a Shaduf and how do we make a fully functioning Shaduf?

Term 2 – Year 3/4 – Shaduf

**National Curriculum Objectives:**

**Design:**

- Use research and develop design criteria to inform the design of a functional product that is fit for a select purpose, aimed at either individuals or groups
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, diagrams and prototypes

**Make:**

- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

**Evaluate:**

- Evaluate their ideas and products against their own design criteria and consider the view of others to improve their work
- Understand how key events and individuals in design and technology have helped shape the world

**Technical knowledge:**

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers, and linkages]



**Key vocabulary**

Word	Meaning
Shaduf	A device used in Egypt for raising water, especially for farming, consisting of a long rod with a bucket at one end and a weight at the other
Transport	Take or carry (people or goods) from one place to another
Hand-operated	(a device) controlled by hand, rather than automatically or electronically
Crops	A farmed plant that is grown on a large scale
Dowel	A projecting peg used for holding together parts of a structure
Counterweight / counter balance	A weight that balances another weight

**Sticky Knowledge:**

- A shaduf was a device used for irrigating the crops in Ancient Egypt
- A shaduf is still used in some countries today.
- A shaduf attaches a bucket to a lever that is then strung from a tripod or a Y junction to easily pull water from a river or well.