

Caroline Haslett Primary School - DT

Topic: Mechanics

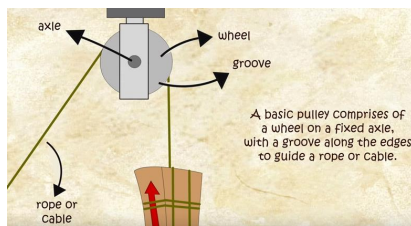
Year 3

Stone Age pulley

Knowledge

Pulleys are made by looping a rope over one or more wheels. They are often used to lift heavy objects: pulling down on one end of the rope creates an upward pull at the other end. Looping the rope over more wheels increases the upward force.

Pulleys can be used to change the speed, direction or force of a movement.



Stonehenge is an ancient monument of giant stones built over hundreds of years. Work began around 3000 BC.

Vocabulary

- **Pulley** - a wheel on an axle designed to support movement.
- **Objects** - a material that can be seen or touched.
- **Upward pull** - a force of upward movement.
- **Downward pull** - a force of movement going down.
- **Movement** - an act of moving.
- **Groove** - a long narrow cut or depression into hard material.
- **Looped rope** - a shape produced from a curved rope that bends around and crosses itself.

Design, make, evaluate.

1. Children to research the making of Stonehenge. How could various mechanisms be used to move the stones? Think about levers and wheels and what mechanisms could be created using various parts.
2. Look at examples of pulleys in everyday life. Construct and disassemble examples using construction equipment and or toys. (lego, knex etc)
3. Design a pulley system that will be able to lift a weight.
4. Make a pulley system, there must be no damage to the pulley system or weight as the weight is lifted.
5. Evaluate, refine work and techniques as work progresses. Continually evaluating the product design.

Skills

- Disassemble examples of pulleys to see how they work.
- Design with a purpose.
- Select appropriate tools, materials, equipment and components to make their pulley.
- Set up equipment safely and use it effectively.
 - Wheels
 - Axles
 - String
 - Hook
 - String