

Year 3 – Summer

Planning, designing, making process

Children to research the making of Stonehenge. How could we use various mechanisms to move the stones? Think about levers and wheels and what mechanisms we could create using various parts.



Design brief: To design and construct a pulley that will be able to lift a weight. Functional considerations: The weight must be lifted with the pulley without damaging the product or the weight.

Children need to select tools, materials, equipment, and components to help them make their pulley. Children need to be able to set up the equipment and use it effectively and safely.

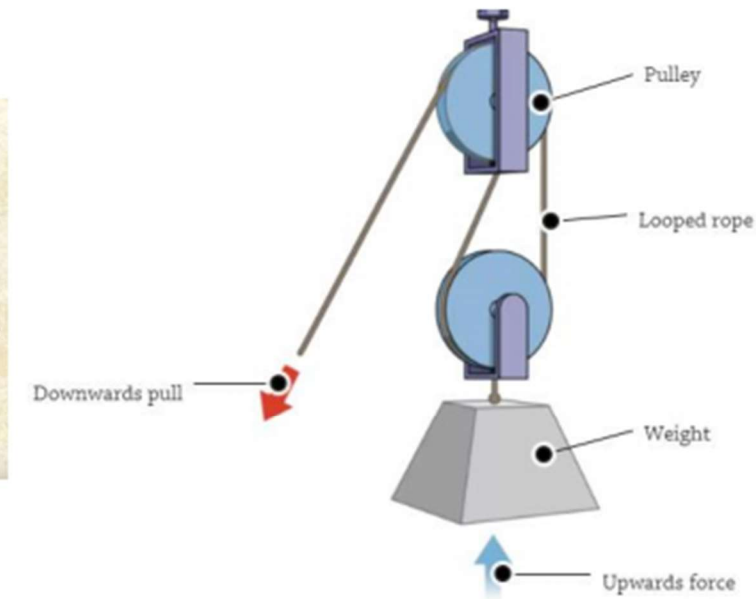
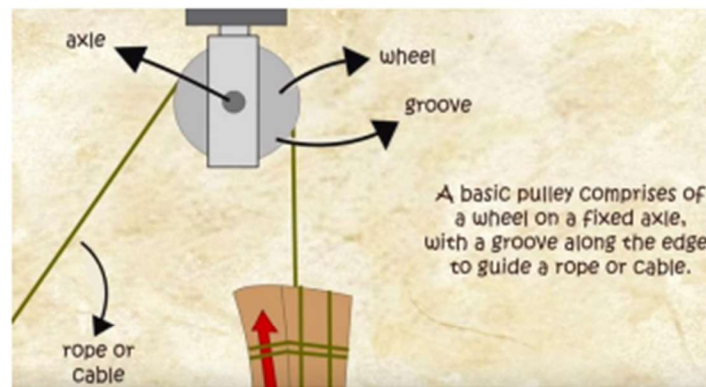
- Wheels
- Axles
- String
- Hook
- String

Key vocabulary, knowledge and understanding

Running stitch

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.



Key questions

1. Which of these parts are not needed for a pulley?	a. Wheel	b. Axle	c. Slider	d. Rope
2. What is the purpose of a pulley?	a. Makes it easy to lift a heavy weight	b. Changes the weight of an object	c. Helps us push a heavy weight	d. Makes it harder to lift a heavy weight
3. The more wheels you use...	a. The shorter rope you need.	b. The less energy you have to use.	c. The heavier the weight will become.	d. The lighter the weight will be come.
4. Which part of the pulley is fixed? (i.e. does no move)	a. Axles	b. Rope	c. Wheel	
5. What force does the person pulling use?	a. Upwards pull	b. Downwards push	c. Upwards push	d. Downwards pull



D.T Knowledge Organiser

