



# Mechanisms

Year 6 Spring Term

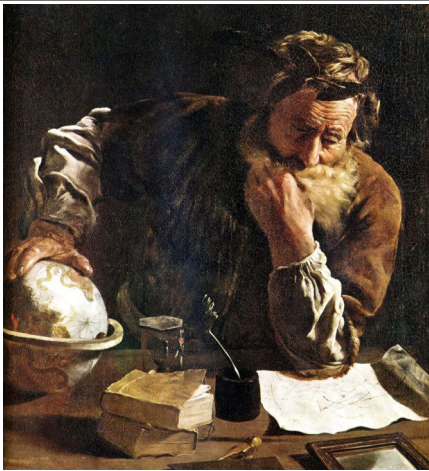
Design Technology

## What I already know?

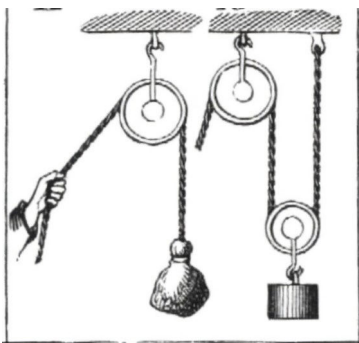
- I can plan out a design that fits the criteria and is suitable for purpose
- I choose the appropriate mechanisms in order to make a moving system
- I can research and analyse a range of existing products to compare

Archimedes

Inventor



Archimedes was a Greek mathematician, physicist, engineer, astronomer, and inventor from the ancient city of Syracuse in Sicily. The first documented pulley machine was the block and tackle pulley system developed by Archimedes. The pulley is a simple machine that is basically a wheel on an axle with a groove in which to seat a rope or a cable.



## Vocabulary

<b>Pulley</b>	A grooved wheel over which a drive belt can run
<b>Drive belt</b>	The belt which connects and transfers movement between two pulleys
<b>Driver</b>	The gear or pulley that provides the input movement to the system
<b>Follower</b>	The gear or pulley that provides the output movement to the system
<b>Gearing up and down</b>	Changing the rotational speed of a product by the use of pulleys or gears

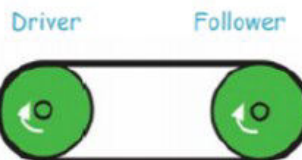
## Key Knowledge

Use my knowledge of creating a successful pulley system to make and design a product of my own using this type of mechanism

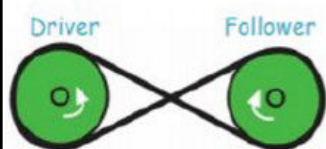
Plan effectively using detailed drawings and descriptions my own product design

Test out other people's products and give constructive feedback

Pulleys do not touch but the wheels are joined by a drive belt. They can be used to change the speed, direction or force of a movement.



The pulleys rotate in the same direction.



The pulleys rotate in different directions.

## Connecting Concepts

Technical Knowledge



*I will plan and create an effective product using a pulley system*

Design:

Function, Inspiration, Innovation



*I will design a product that is functional and purposeful*