



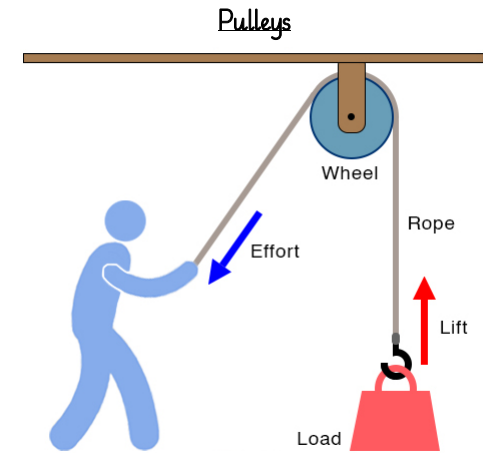
Key Vocabulary

mechanism	a set of related parts used to create movement
pulley	a simple mechanism that comprises cord looped over one or more wheels
wheel	a circular object that spins below the vehicle to help it move
axle	a rod on which one or more wheels can rotate, either freely or be fixed to and turn with the axle
drive belt	a cable which connects and transfers movement between the force and the load
load	the weight of an object
effort	the amount of force needed to lift or move an object
force	the strength or energy needed to for movement

The Design Cycle



Mechanisms - Pulleys



Pulleys are a simple piece of engineering which allows you to lift objects up and down using a cable or rope. They're made up of a wheel on an axle that rotates, allowing the rope or cable to feed around the groove within the wheel.

Everyday Examples

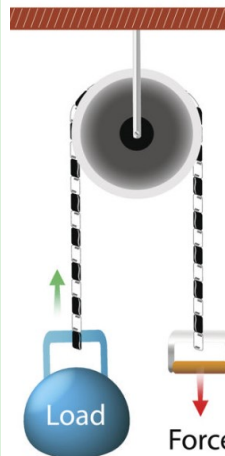


Archimedes (287 - 212 BC)

Archimedes was an Ancient Greek mathematician, physicist, engineer, astronomer and inventor. A ship, that weighed two tons, which was intended as a gift to the Egyptian empire was built however yet to be hauled into the sea. When challenged to do so, Archimedes designed a complex system of compound pulleys, a rotating helix, and ropes, and thus was successful in his task.



Fixed pulley



Movable pulleys



System of two pulleys

