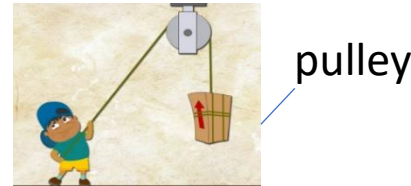
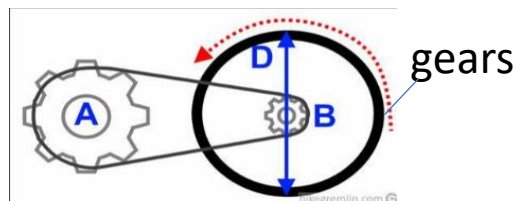


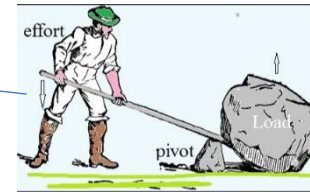
Mighty Oaks Knowledge Organiser - Forces

Subject Specific Vocabulary

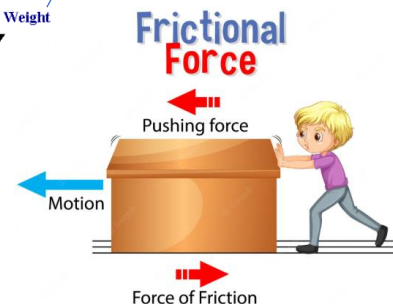
friction	Friction is a force between two surfaces that are sliding, or trying to slide, across each other.
gravity	Gravity is a force which tries to pull two objects towards each other.
air resistance / drag	Air resistance is a type of friction between air and another material. For example, when an aeroplane flies through the air.
water resistance / drag	If you go swimming, there is friction between your skin and the water particles.
levers	A lever can be described as a long rigid body with a fulcrum(or pivot point) along its length.
pulleys	Pulley is a simple machine and comprises of a wheel on a fixed axle, with a groove along the edges to guide a rope or cable.
gears	Gears are wheels with teeth that slot together. When one gear is turned the other one turns as well.
Force meter	A force meter is a device used for measuring the amount of force. Force is measured in Newtons.
Galileo	Galileo (1564-1642) developed the telescope to enable close observation of the night sky.
Newton	During his lifetime, Newton (1642-1717) developed the theory of gravity and made breakthroughs in the area of optics, such as the reflecting telescope.



lever



Weight is gravity acting on mass



Sticky knowledge to know by the end of the forces topic:

- ☐ Any kind of force is really just a push or a pull.
- ☐ Frictional force is any force that is caused due to the friction between 2 surfaces. An example of this might be when you put on the brakes on your bike.
- ☐ Gravity is the pulling force acting between the Earth and a falling object, for example when you drop something. Gravity pulls objects towards the centre of the Earth.
- ☐ Forces can be contact or non-contact. Contact forces are where objects exert force on one another: Friction is a contact force. Non-contact forces are 'invisible' like gravity.
- ☐ Air resistance is the force on an object moving through air, such as a plane moving through the sky. Air resistance affects how quickly or slowly objects move through the air.
- ☐ Water resistance is the force on objects moving in water.
- ☐ Gears are used to change the speed and / or direction of a force.
- ☐ A lever is a simple machine that uses a fulcrum to move heavy objects with less effort.
- ☐ Isaac Newton was a British scientist famous for his work on forces. Force is measured in Newtons – named after him.
- ☐ Pulleys are used with ropes or chains so that things can be lifted with less effort.