



### Lesson Sequence



1. Explore gravity and the life and work of Isaac Newton



2. Examine the connection between air resistance and parachutes



3. Explore factors which affect an object's ability to resist water



4. Investigate the effects of friction on different surfaces

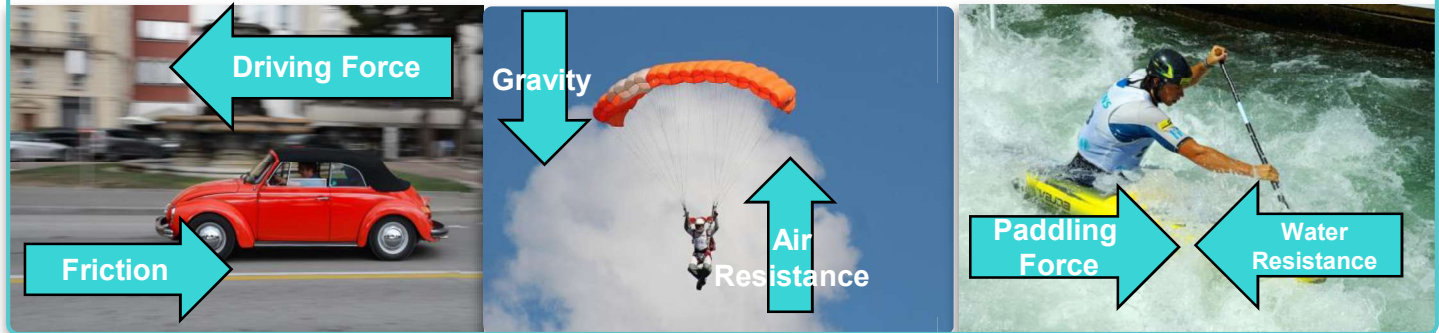


5. Investigate mechanism – levers and pulleys



6. Investigate mechanisms - gears

### Forces in Action

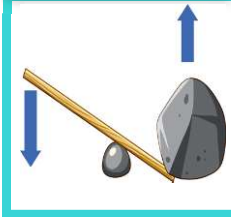


### Mechanisms



#### Pulleys

A pulley is a wheel over which a belt, rope, or chain is pulled to lift or lower a heavy object.



#### Levers

Levers are a bar that rotates around a point. They make it easier to lift a heavy load.



#### Gears/Cogs

Gears are toothed wheels that mesh together, they rotate in opposite directions.

### Mass and Weight

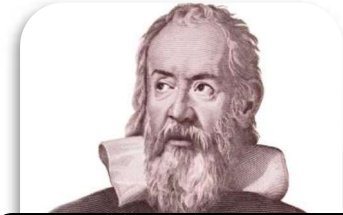


The mass of an item can be measured in **Grams/ Kilograms.**

Weight is how much force is needed to pull an object and is measured in **Newtons.**



Sir Isaac Newton developed his theory of gravity.















Galileo conducted experiments to test mass.



## Unit Rocket Words: Year 5 - forces



### Rocket Words

	<b>Sir Isaac Newton</b>	an English physicist and mathematician
	<b>gravity</b>	force which draws objects towards the centre of a planet
	<b>Galileo Galilei</b>	an Italian scientist, and the first astronomer
	<b>parachute</b>	a device, usually made from cloth, designed to create air resistance and slow descent
	<b>water resistance</b>	friction which acts on an object as it moves through water
	<b>streamlined</b>	an object that is shaped to travel through air or water with little resistance
	<b>buoyant</b>	to float
	<b>upthrust</b>	any force that is causing something to be pushed upwards
	<b>friction</b>	the resistance of motion when one object rubs against another
	<b>newton</b>	the international metric unit of force
	<b>lever</b>	a long arm that rests on a support called a fulcrum
	<b>pulley</b>	a wheel over which a belt, rope, or chain is pulled to lift or lower a heavy object