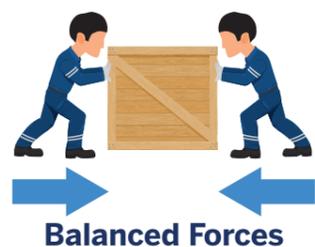




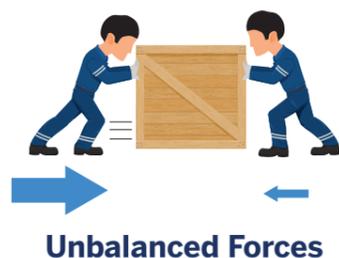
Glossary				
1	<b>Force</b>	A push or pull on an object	11 <b>Upthrust</b>	Pushes up on objects in water
2	<b>Balanced</b>	When things are equal	12 <b>Mass</b>	How much 'stuff' is in an object
3	<b>Unbalanced</b>	When things are not equal	13 <b>Weight</b>	How much gravity is acting on an object
4	<b>Contact Force</b>	A force which can only act when touching an object	14 <b>Grams and Kilograms</b>	What we measure mass in
5	<b>Non-Contact Force</b>	A force which can act without touching an object	15 <b>Newtons</b>	What we measure weight in
6	<b>Gravity</b>	Pulls objects on Earth towards the centre of Earth	16 <b>Streamlined</b>	Shaped to move easily through water
7	<b>Friction</b>	Applied between two sliding surfaces	17 <b>Density</b>	How tightly packed the 'stuff' is in an object or material
8	<b>Water Resistance</b>	Applied on objects moving through water	18 <b>Levers</b>	A type of simple machine which uses a beam
9	<b>Air Resistance</b>	Applied on objects moving through air	19 <b>Pulleys</b>	A type of simple machine which uses wheels and rope
10	<b>Magnetism</b>	Applied when two objects are magnetic	20 <b>Gears</b>	A type of simple machine which uses toothed cogs

**What are balanced and unbalanced forces?**

When two forces acting on an object are equal in size but they are acting in opposite directions, the forces are balanced. If an object is still, it will stay still and if an object is moving, it will continue to move at the same speed and in the same direction.



When forces are unbalanced, an object may start to move, stop moving, change speed or change direction.



**What is the difference between mass and weight?**

Mass is how much matter is inside an object. We measure mass in grams and kilograms and can use scales to do this.



Weight is how strongly gravity is pulling down on an object. It is measured in newtons (N).



Gravity	Friction	Magnetism
A non-contact force which pulls all objects on Earth to the centre of the Earth. All objects have gravitational force but larger objects have more.	A contact force which acts when two surfaces are sliding or a trying to slide over each other. Rub your hands together to feel friction for yourself.	A non-contact force which acts between two magnetic objects. A magnet can both push and pull. Attracting is pulling and repelling is pushing.

Air resistance	Water resistance	Upthrust
A contact force which acts on objects moving through the air. Air resistance is a type of friction and is the force that pushes up against a parachute that is falling towards the ground.	A contact force which acts on objects moving through water. Water resistance is a type of friction and is the force you can feel pushing against you when you try to walk in a swimming pool.	A contact force which pushes upwards against objects in water. Upthrust is also known as buoyancy and is the force which makes things float instead of sink.

Levers	Pulleys	Gears
Levers can be used to turn a small force into a larger force. They can help us to change how a force is used and do things such as lift heavy objects. There are different kinds of levers.	Pulleys can be used to make a small force lift up a much heavier load. If you add more wheels to a pulley, you need to use less force to lift something.	A gear is also known as a cog. They are like wheels but have 'teeth'. A gear or set of gears can be used to change the speed or direction of a force. If one gear turns clockwise then the other will turn anti-clockwise.