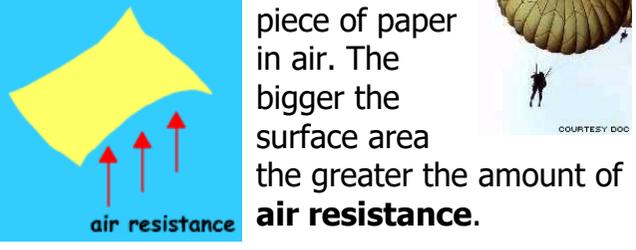
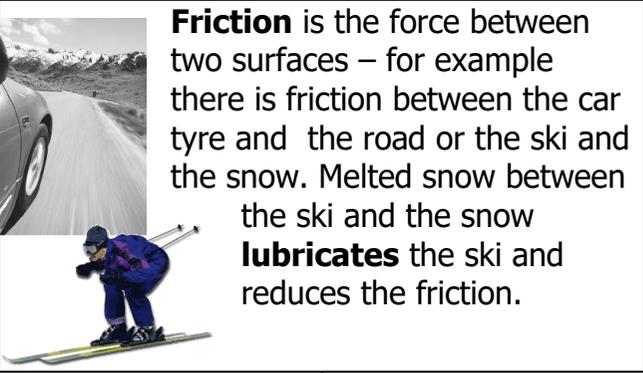
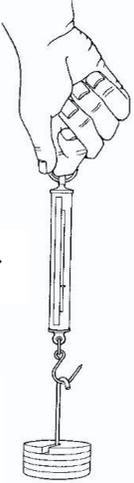
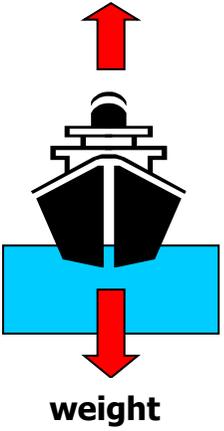
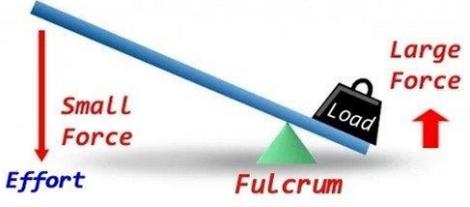


Y5 FORCES: Gravity, Friction and Mechanisms

<h2>Glossary</h2>	<p>Air resistance is a type of friction which slows the fall of a parachute or a piece of paper in air. The bigger the surface area the greater the amount of air resistance.</p> 	<p>Friction is the force between two surfaces – for example there is friction between the car tyre and the road or the ski and the snow. Melted snow between the ski and the snow lubricates the ski and reduces the friction.</p> 	<p>mass – the amount of material in an object measured in grams (g)</p>	
<p>air resistance – the force that air exerts on a moving object</p>			<p>mechanism – a system of different parts working together in a machine.</p>	
<p>balanced – when the forces acting on an object are opposite and equal such that the object does not move</p>			<p>newtons – the units used to measure forces (N)</p>	
<p>force – a push, pull, twist or turn – gravity, friction and upthrust are all examples of forces</p>	<p>Water resistance is another type of friction which slows objects moving through water.</p> 	<p>A forcemeter marked in Newtons is used to measure the magnitude of a force.</p> 	<p>The forces of weight (gravity) and upthrust need to be balanced for a ship to float.</p> 	<p>pulley – a wheel with a grooved rim which a cord passes round, which changes the direction of a force applied to the cord.</p>
<p>force diagram – a diagram which represents forces and the directions they are acting with arrows</p>				<p>speed – how fast an object is moving</p>
<p>force-meter – a device used to measure forces (sometimes called a newtonmeter)</p>				<p>stationary – not moving</p>
<p>friction – is the force between two moving surfaces</p>	<p>Levers – allow a small force to have a great effect.</p> <p><i>How Does a Lever Work?</i></p> 	<p>4N →</p> <p>Mass = 400g</p>		<p>unbalanced – when one force acting on an object is greater than the other forces, the object moves in the direction in which that force is acting</p>
<p>gears – toothed wheel mechanisms which transfer motion from one moving part to another.</p>				<p>upthrust – a force in water which pushes upwards</p>
<p>gravity – the force that causes all objects to fall to the ground</p>	<p>The speed of an object is the distance travelled in a certain time e.g. kilometres per second, miles per hour etc.</p> 	<p>The forces on this gymnast are balanced, the gymnast is stationary (not moving).</p> 		<p>water resistance – the force that water exerts on a moving object</p>
<p>lubrication – a method to reduce the friction between two surfaces</p>				<p>weight – the force downward on an object caused by gravity</p>