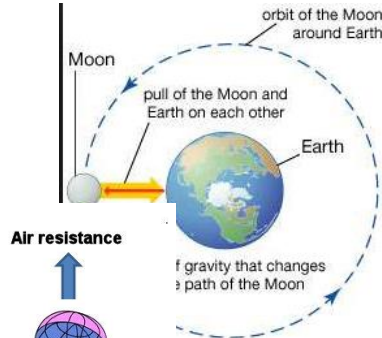

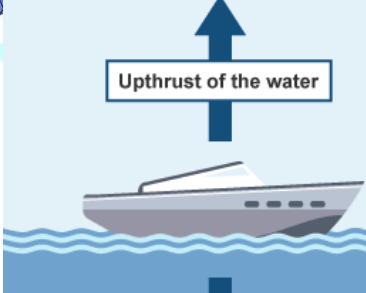
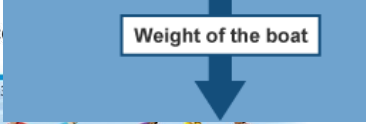



Forces

Prior Learning: Force is strength or energy as an attribute of physical action or movement and a mechanism is a system of parts working together.

Concept – Physics - forces

Facts	Vocabulary
<p>1. Definition of a force:</p> <p>a) A force is any interaction that, when unopposed, will change the motion of an object</p>	<p>1. Force - Middle English: from Old French force (noun), forcer (verb), based on Latin fortis 'strong'.</p>
<p>2. The action from a force can cause an object to:</p> <p>a) move or speed up (accelerate)</p> <p>b) to slow down (decelerate)</p> <p>c) to stop</p> <p>d) to change direction.</p>	
<p>3 Types of forces:</p> <p>a) Gravity - the force by which a planet or other body draws objects toward its centre. The Earth's gravity is what keeps you on the ground and makes things fall.</p> <p>b) Air resistance - describes the forces that are in opposition to the motion of an object as it passes through the air thus slowing the object down.</p> <p>c) Water resistance – A force that is caused by water with the force acting in the opposite direction to an object moving through the water.</p> <p>d) Friction - the resistance that one surface or object encounters when moving over another.</p>	<p>Gravity</p>  <p>Air resistance</p>  <p>Upthrust of the water</p>  <p>Weight of the boat</p>  <p>Balance</p> 
<p>4 Balanced and Unbalanced forces:</p> <p>a) Balanced forces do not cause a change in motion.</p> <p>b) Unbalanced forces cause a change in the motion of an object .</p>	
<p>5 Simple machines that allow a smaller force to have a greater effect:</p> <p>a) A lever - a rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other.</p> <p>b) A pulley - a wheel with a grooved rim around which a cord passes, which acts to change the direction of a force applied to the cord and is used to raise heavy weights.</p> <p>c) A gear - a toothed wheel that works with others to alter the speed of a driving mechanism and the speed of the driven parts</p>	
<p>6. Unit of measurement for forces:</p> <p>a) Newtons (N)</p>	
<p>7. Scientists who helped develop gravitational theory:</p> <p>a) Galileo Galilei</p> <p>b) Isaac Newton</p>	
<p>Websites: https://www.bbc.com/bitesize/topics/znmmn39 https://www.schoolsofkingedwardvi.co.uk/ks2-science-year-5-5b-forces-gravity/ https://www.schoolsofkingedwardvi.co.uk/ks2-science-year-5-5c-forces-simple-machines/</p>	