



Year 5: Forces Knowledge Mat

Subject Specific Vocabulary		Power of reading	Sticky Knowledge about Forces
friction	Friction is a force between two surfaces that are sliding, or trying to slide, across each other.		<input type="checkbox"/> Frictional force is any force that is caused due to friction. An example of this might be when you put on the brakes on your bike.
gravity	Gravity is a force which tries to pull two objects toward each other.		
air resistance	Air resistance is a type of friction between air and another material. For example, when an aeroplane flies through the air.		
water resistance	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 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.		
		Important facts to know by the end of the forces topic:	<input type="checkbox"/> Gravity is the pulling force acting between the Earth and a falling object, for example when you drop something. Gravity pulls objects to the ground.
gears	Gears are wheels with teeth that slot together. When one gear is turned the other one turns as well.	<ul style="list-style-type: none"> • know what gravity is and its impact on our lives. • identify and know the effect of air resistance. • identify and know the effect of water resistance. • identify and know the effect of friction. • explain how levers, pulleys and gears allow a smaller force to have a greater effect. • know who Isaac Newton and Galileo were. 	<input type="checkbox"/> Surface resistance is the force on objects moving across a surface, such as an ice-skater skating on ice.
parachute	A parachute is a device used to slow down an object that is falling towards the ground. As the parachute opens, the Air resistance increases.		<input type="checkbox"/> Any kind of force is really just a push or a pull.
Galileo	Galileo developed the telescope to enable close observation of the night sky.		<input type="checkbox"/> Air resistance is the force on an object moving through air, such as a plane moving through the sky. Air resistance affects how fast or slowly objects move through the air
Newton	During his lifetime Newton developed the theory of gravity and made breakthroughs in the area of optics such as the reflecting telescope.		<input type="checkbox"/> Water resistance is the force on objects floating on or moving in water.
			<input type="checkbox"/> Magnetic force is an invisible force created by electrons. Magnetic force controls magnetism and electricity.