Mighty Oaks Knowledge Organiser - Forces

Subject Specific Vocabulary		Interesting Books	Sticky Knowledge about
friction	Friction is a force between two surfaces that are sliding, or trying to slide, across each other.	The Man Who Walked Between the Towers. WELLS OF KNOWLEDGE SCIENCE SERIES HOW DO YOU LIFT A LION? Bobert E. Wells Important facts to know by the end of the forces topic:	Forces Prictional 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 towards 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.		Gravity is the pulling force acting between the Earth and a falling object, for example when you drop something. Gravity pulls
water resistance	If you go swimming, there is friction between your skin and the water particles.		objects to the ground.
levers	A lever can be described as a long rigid body with a fulcrum along its length.		☐ Forces can be contact or non-contact. Contact forces are where objects exert force on one another: Friction is a contact force.
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.		Non-contact forces are 'invisible' like gravity. Any kind of force is really just a push or a pull.
gears	Gears are wheels with teeth that slot together. When one gear is turned the other one turns as well.	 Know what gravity is and its impact on our lives. Identify and know the effect of air 	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
Force meter	A force meter is a device used for measuring the amount of force. Force is measured in Newtons.	resistance. Identify and know the effect of water resistance. Identify and know the effect of friction. Be able to identify the type and direction of forces acting on objects. Explain how levers, pulleys and gears allow a smaller force to have a greater effect. Know who Isaac Newton and Galileo were.	
			 Water resistance is the force on objects moving in water.
Galileo	Galileo (1564-1642) developed the telescope to enable close observation of the night sky.		
Newton	During his lifetime, Newton (1642-1717) developed the theory of gravity and made breakthroughs in the area of optics, such as the reflecting telescope.		Magnetic force is an invisible force created by electrons. Magnetic force controls magnetism and electricity.