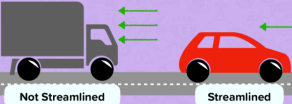
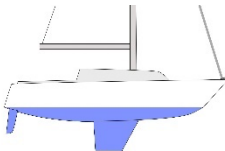
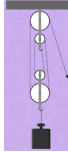
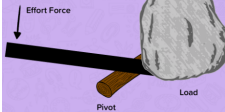
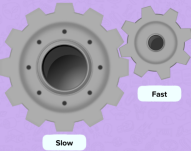
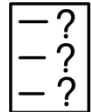
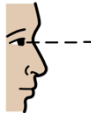




Year 5 – Autumn 2 – Science – Pupil Knowledge Organiser

WHAT DO I ALREADY KNOW?		WHAT AM I LEARNING NOW?		
- A force makes an object move, stop, or change direction. - A contact force is one that needs two objects to be touching. - Contact forces include Friction, air resistance, up thrust, and tension. - A non-contact force is one that does not need two objects to be touching. - Non-contact forces include gravity, and magnetic. - Newtons is the unit of measurement use to measure force. It is shortened to N.		- Why do unsupported objects fall towards the Earth? - How can we investigate the force of gravity? - How does air resistance affect objects? - How does water resistance affect objects? - How do levers and pulleys affect the movement of objects? - How do gears affect the movement of objects?		
KEY KNOWLEDGE: FORCES		KEY SKILLS: WORKING SCIENTIFICALLY	KEY VOCABULARY	
 The force of gravity on an object can be measured using a force meter.  On some planets, gravity is stronger, so the weight of an object increases, but the mass stays the same.  Gravity on the moon is weaker, so the weight of an object decreases, but the mass stays the same.  Both air and water resistance try to slow things down. We can decrease air/water resistance by making an object more streamlined.  Air resistance can be helpful, such as in parachutes.  Water resistance can be very helpful for stabilising boats e.g. by adding keels.  Pulleys and levers make it easier to lift things. If we use more pulleys, we will need even less force to lift a load.  If we use a longer level, we will need less force to lift a load.  Connecting a smaller gear to a larger one (with more teeth) makes the smaller one turn much faster but with less force.		 Ask Questions  Conclusions  Enquiry  Observe  Record/ Present  Communicate	gravity weight mass Newtons (N) friction air resistance water resistance streamline pulley level gear load	A non-contact force that pulls an object down to the centre of the Earth. The force of gravity acting on an object. How much matter there is in an object. It is measured in g or Kg. The unit used to measure force/weight. A contact frictional force that occurs when two objects rub together. A contact frictional force that occurs when on object moves through air. A force that occurs when on object moves through water. Where an object is designed to move smoothly and easily. A mechanism where a rope runs over a set of wheels to lift an object. A long pole that be used to lift an object. A wheel with teeth around its outer edge. An object that you want to lift.