Year 5: Forces Knowledge Mat

Subject Specific Vocabulary

force	A force causes an object to start moving, stop moving, speed up, slow down or change direction.
gravity	Gravity is a force that acts at a distance. Everything is pulled to the Earth by gravity. This causes unsupported objects to fall.
resistance	A resistance is a force which stops or tries to stop an object from moving.
friction	Friction is a resistance force between two surfaces that are sliding, or trying to slide, across each other.
air resistance	Air resistance is a type of friction that slows down things that are traveling through the air.
water resistance	Water resistance is a type of friction that slows down things moving in water.
gears	Gears are wheels with teeth that slot together. When one gear is turned the other one turns as well.
pulley	Pulley is a simple machine made up 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:

- 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

Sticky Knowledge about Forces

- ❑ 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.
- ❑ 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.
- ❑ Frictional forces always slow down or stop a moving object.
- ❑ 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
- ❑ Water resistance is the force on objects floating on or moving in water.
- ❑ A mechanism is a device that allows a small force to be increased to a larger force (e.g a lever, gear or pulley).