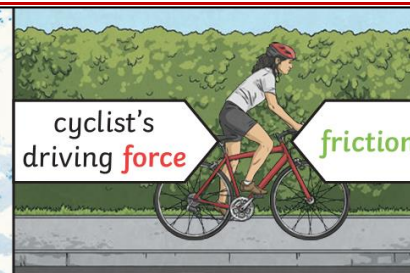
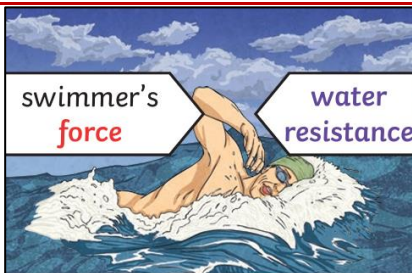
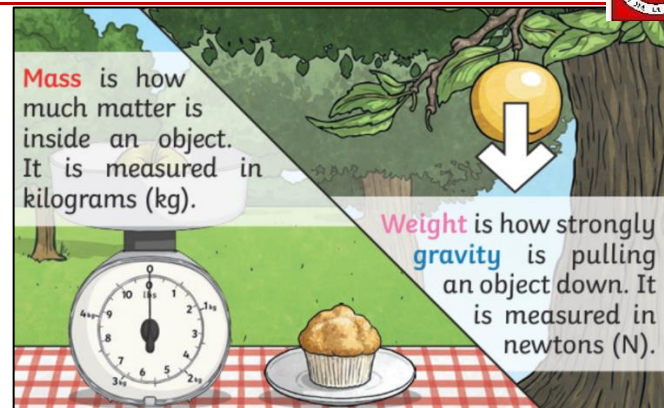
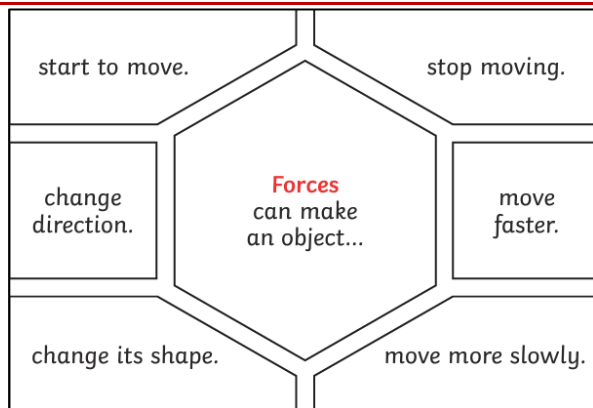


Science – Forces

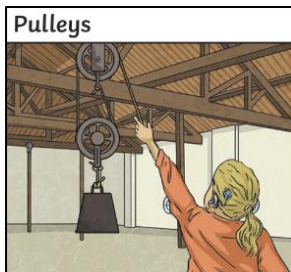
Vocabulary

- **Mass:** A measure of how much matter (or 'stuff') is inside an object.
- **Friction:** A force that acts between two surfaces or objects that are moving, or trying to move, across each other.
- **Air resistance:** A type of friction caused by air pushing against any moving object.
- **Water resistance:** A type of friction caused by water pushing against any moving object.
- **Buoyancy:** An object is buoyant if it floats.

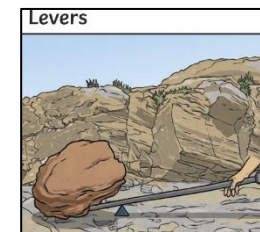


Water resistance and **air resistance** are forms of **friction**. **Friction** is sometimes helpful and sometimes unhelpful. For example, **air resistance** is helpful as it stops the skydiver hitting the ground at high speed. **Friction** on a bike chain can make the bike harder to pedal so it is unhelpful.

Pulleys can be used to make a small force lift a heavier load. The more wheels in a pulley, the less force is needed to lift a weight.



Gears or cogs can be used to change the speed, force or direction of a motion. When two gears are connected, they always turn in the opposite direction to each other.



Levers can be used to make a small force lift a heavier load. A lever always rests on a pivot.