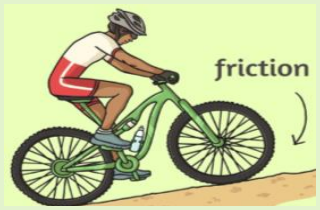
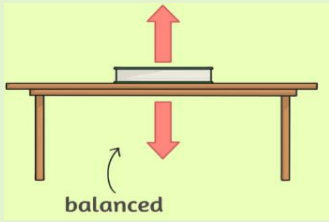
Coleman Primary School

Key Knowledge Organiser: ***Year 5- Spring 2***

Science – Let's Get Moving





Key Vocabulary

air resistance	the resistance of air to forward movement
force meter	an instrument for measuring forces
friction	the force made when two objects rub against each other
gravity	the force that attracts a body towards the centre of the Earth.
Newton	the unit of force
water resistance	the resistance of water to forward movement
weight	the force which something is attracted to the Earth
lever	a rigid bar that transmits force and motion
spring	a coil of wires that can transmit a force and motion
gear	a toothed wheel that fits into another gear to transmit motion.
pulley	a mounted rotating wheel with a grooved rim over which a chain or string can move to change the direction of a pulling force.
reliable	something that can be depended on

Gravity is the downward pulling force measured in Newtons. The weight of an object is measured using a Newton meter- remember weight is the measure of how strong gravity is pulling on an object.

Record the mass and weight of each object in the table below.

Object	Mass (kg)	Weight (N)

Friction:

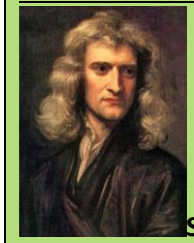
- Friction occurs between two surfaces that slide against each other.
- Friction is the force that acts against you when you try to move something heavy.

- The rougher the surfaces, the stronger the friction.
- Friction produces heat, like when you rub your hands together.

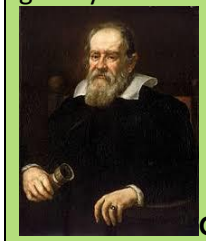
Air Resistance:

- Air resistance is a type of friction.
- Air resistance makes it more difficult for an aeroplane to travel through the air from the air particles hitting it.
- The streamlined shape of an aeroplane helps it against air resistance.
- Air resistance is also what makes parachutes work.

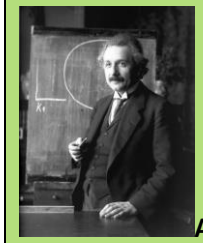
Famous Scientists



Sir Isaac Newton was the first person to think of the force of gravity and describe its effects



Galileo: a famous Italian scientist who first used scientific evidence to back up his theories.



Albert Einstein did not think it was a force at all. He said it was a distortion of space and time. Sounds very complicated!

Scientific skills learned prior to this unit:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

(Year 4 skills)

Scientific skills learned during this unit:

- planning different types of scientific enquiries to answer questions
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests

(Year 5 skills)