

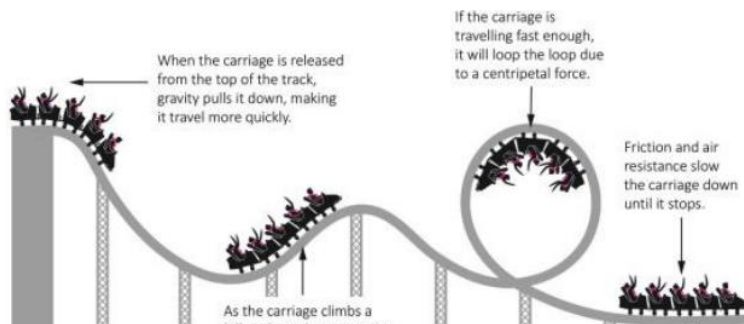


Year 5 – Summer 2nd half
 Title of topic: Funfair
 Topic Focus: DT, Geography
 and Science

This is the knowledge organiser for our topic. It includes all the learning outcomes, key facts and vocabulary. Please share this with your child to help them develop their knowledge and understanding of our topic.

Forces

A force is a push or pull. To make an object move, such as a rollercoaster carriage, a force must be applied to the object. Nothing will move without a force pushing or pulling. Roller coaster carriages don't have engines so they rely on forces to keep them moving.



There are many types of fairground rides that use different forces.



Pendulum ride



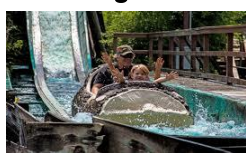
Swing ride



Roller coaster



Drop tower



Log flume



Carousel

Types of Mechanism.

A mechanism is a part of a machine or several parts that work together to create movement.



A lever is a long rigid arm balanced on a fulcrum. Levers are found in seesaws, wheelbarrows and crowbars.



A linkage is made up of several rigid lever arms connected by joints. Linkages are found in extending platforms, extending mirrors and diggers.



A cam mechanism is made up of 3 parts: a cam, slide and follower. Cams are found in car engines and steam trains.



Gears are wheels with teeth that slot together. Gears are found in wind-up toys, clocks and bicycles.



A pulley is a rope looped around one or more wheels. Pulleys are found in lifts, rollercoaster rides and attached to the sails of

Key vocabulary:

Air resistance: A force that acts on an object when it moves through the air, causing it to slow down.

Force: A push or pull that can change an object's speed, shape or direction of movement.

Gravity: The force that attracts things towards the centre of the Earth.

Roller coaster: An exciting ride that travels around sudden bends and steep slopes.

Centripetal force: A force that makes an object follow a curved path.

Machine: A piece of equipment with moving parts that works when given power, such as electricity.

Pulley: A mechanism that is used to lift a load with less effort.

Gear: A mechanism that is used to change the speed, force or direction of a motion.

Lever: A simple mechanism that is used to move a load with less effort.

Cam: A mechanism that changes one type of motion into another type of motion.

Friction: A force between 2 surfaces that rub together. Friction slows down a moving object