How would you move it?

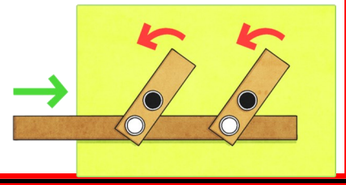
By Peter Brown

Design and Technology— Mechanisms

A mechanism is a system of parts working together in a machine; a piece of machinery.

Many mechanisms take one type of **input** motion, and **output** it as a different type of motion.

In a lever and linkage mechanism, the 'input' is where the user pushes or pulls a card strip. The 'output' is where one or more parts of the picture move. When you push the linkage (input), it moves the two levers (output).



mechanism	A system of parts working together in a machine; a piece of machinery.
motion	Movement from one place to another.
pivot	A turning point.
lever	A long arm and a fulcrum, where the arm pivots.
pulley	A simple machine that makes it easier to lift a heavy object.
gear	a rotating part in a machine, has teeth cut around its circumference.
cam	A cam is part in a mechanical linkage, it can rotate or slide.

Science -Electrical Circuits

Electricity is a flow of charged particles. It is an important type of energy which powers things around us, such as TVs, fridges, computers and ovens.

A simple circuit can be made using wires, a cell and a bulb. It must form a complete loop to power the bulb.

bulb

cell

switch	Enables the flow of electricity to be turned on or off
motor	Turns electrical energy into mechanical movement
buzzer	Something that makes a sound when electricity goes through it
cell	A device used to generate electricity
bulb	Something that gives out light when electricity goes through it
wire	Carries electricity around a circuit

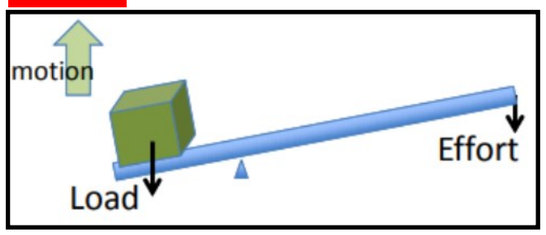
Stone age 10,000 BC | 1st Volcanic Eruption 7000 BC | The Egyptians 3100 BC | Archemedis formed 'Law of levers 250 BC | The Romans 27 BC | Anglo-Saxons 410 AD | Vikings 793 AD | Robert Bakewell 1725 | First planet discovered 1781 | The Victorians 1837 | Frida Kahlo born 1907 | 2023

A lever is a rigid bar resting on a pivot, used to move a heavy load with one end when pressure is applied to the other.

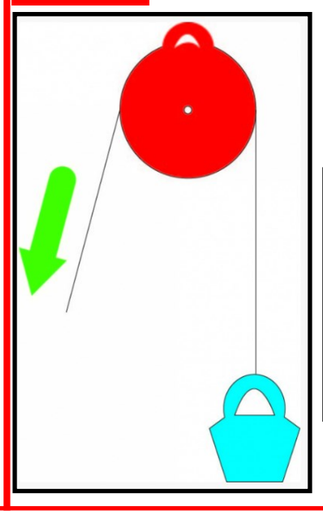
A pulley is a wheel with a grooved rim around which a cord passes, which changes the direction of a force applied which is used to raise heavy weights.

Gears are wheels with teeth that slot together. When one gear is turned the other one turns too. If the gears are different sizes, they can be used to increase the power of the turning force.

lever



pulley



gears

Geography- Renewable Energy

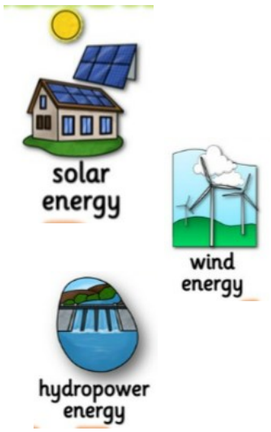
Wind power—Wind blows, the turbine's blades spin, capturing energy – this energy is sent through a gearbox to a generator, which converts it into electricity.

Hydropower—A reservoir is created, usually by building a large dam which floods a valley. This water is allowed to escape through pipes in the dam. When the water flows through the pipes, it turns a turbine that is linked to a generator that produces electricity.

Solar power—The sun shines on the solar panels which absorb the energy. A solar inverter converts it into electricity.

renewable	Something that can be renewed and will not be reduced.
energy	Power from physical or chemical resources to provide light or heat to work machines.
hydropower	Power using energy
solar power	Power using energy generated from the sun.
wind power	Power using energy generated from wind.

Renewable Energy



Non-Renewable Energy

Spring 2

P.E

underarm throw catching
forehand backhand
ready position
collaboration respect
honesty perseverance
decision making tactics

Reading

conjunctions
vocabulary
context
inference
links
meaning

English/Grammar

visualisation
prediction
thoughts feelings
diary entry character
letter of advice
informal
parenthesis brackets
dashes commas

RSHE

Rule of Law
friendships
emotions
healthy
relationships
value

Science

electricity
appliances lamp
circuit cell
wires bulbs
switches buzzers
conductors
insulators

Maths

Year 4

denominator addition
improper fraction
mixed number
whole number partition

Year 5

integer hundred
decimal number length
decimal place width
percentage perimeter
area measure

Geography

renewable energy
hydro wind solar

Design & Technology

mechanisms
levers pulleys
system machinery
input motion
output linkage
pivot gear cam
wheel load

R.E

Jesus Resurrection
Kingdom Heaven
Pentecost Bible
Trinity Holy Spirit

Computing

program algorithm
variable flowchart
input

Art

colour texture special effect
filters graphics images