Autumn 1- DT Knowledge Organiser Sheet material- mechanisms (levers, sliders, wheels, and axles) Year 1 and 2

Key Vocabulary

Mechanism – parts that work together to make something move.
Lever – a stiff bar that moves on a pivot to lift or move something.
Slider – a part that moves back and forth in a straight line.
Wheel – a round part that turns around an axle.
Axle – a rod that goes through the centre of a wheel, helping it turn.
Pivot – the fixed point where something turns or moves.
Sheet material – flat material like card or paper.
Split pin – a small pin used to join two pieces so they can turn.
Template – a shape you draw around to make a part.
Reinforce – to make something stronger.
Join – to attach two parts together.
Hole punch – a tool to make a hole in card or paper
Push – to move something away from you.
Pull – to bring something towards you.
Rotate – to turn in a circle.
Slide – to move smoothly along a surface.
Plan – a drawing or idea of what you will make.
Label – to add words to show what something is.
Test – try something to see if it works.
Evaluate – think about what went well and what could be better.
Improve – make changes to make it better

Core Knowledge

A **mechanism** is a part of a machine that makes something move.
Mechanisms are often made of more than one part that work together
A **lever** is a bar that moves around a point (called a pivot).
Levers help us lift or move things more easily.
Everyday levers: scissors, seesaws, bottle openers.
An **axle** is a rod that a wheel or moving part turns around.
Wheels and axles make things roll and move more smoothly.
Examples: cars, toy prams, rolling pins.
A design is a plan for how something will look and work.
When designing, we think about: **what it needs to do**, **what it should look like**, and **what it's made from**.
We test and improve our designs to make them stronger or work better
We can use **levers and axles** to make body parts move (e.g. an arm lifting, a leg kicking).
Materials like card, split pins, and rods can be used to join and move parts.

Safety First!

Do not point scissors at another person.
Follow instructions carefully.
When walking with scissors, hold the closed blades and point them downwards.
Report any accidents to the grown-ups and clean up after yourself!

Evaluating

How does your creation look?
How could you improve the way it looks?
Are you're attached materials secure?
How did you achieve this?
How could they be joined more securely?
Which materials did you use? Why?
Did you follow your design carefully?
Which skills do you need to work on?
How could you improve your toy?