



Knowledge Organiser	Subject: Design and Technology	Topic: Story Books	Year: 4
----------------------------	---------------------------------------	---------------------------	----------------

<u>Key Knowledge</u> <u>Technical knowledge I have already learnt about Story Books and mechanisms</u> Examples of Mechanisms Wheels and Axles: Think of a bicycle! The wheels and axles are mechanisms that allow the bike to roll along the ground. Levers: A seesaw at the park is a great example! When one person sits down, the other person goes up. The lever (the seesaw) helps make this happen. Pulleys: Have you seen a flag on a pole? The rope and pulley help lift the flag up high without needing lots of strength! How Do Mechanisms Work? Mechanisms work by using forces, which are just pushes and pulls. When you push a toy train, you're using force to make it go. The mechanisms inside help it move in the right direction.	<u>Key Learning</u> What are Story Books with Mechanisms? Story books with mechanisms are interactive stories that encourage readers to engage with the pages. They include cool elements like flaps, pull-tabs, sliders, and pop-ups. When you do something to these elements, they make the story come alive! What are Mechanisms? Mechanisms make things move. They help machines and objects work. Imagine a toy that rolls when you push it. Inside that toy, there are mechanisms that help it move smoothly. Examples of Mechanisms Flaps: Think about a book where you can lift a flap to see what's hiding underneath! For example, 'Where's Spot?' is a great story where you lift the flaps to find the little dog. Pull-tabs: You can pull a tab and a character moves or an object changes! This can turn a simple scene into something exciting! Pop-ups: These books have pictures that pop up when you turn the page. A classic example is 'The Monster at the End of This Book', where Grover pops up to stop you! 	<u>Disciplinary Skills</u> • Generate ideas through brainstorming and identify a purpose for their product. • Draw up a specification for their design. • Select appropriate materials, tools and techniques. • Use skills in using different tools and equipment safely and accurately. • Evaluate a product against the original design specification. <u>Key Concepts</u> <table border="1"> <tr> <td data-bbox="1216 632 1525 1217"> Design- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. </td><td data-bbox="1525 632 1836 1217"> Make- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. </td><td data-bbox="1836 632 2145 1153"> Evaluate – Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world. </td></tr> </table>	Design- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	Make- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	Evaluate – Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world.
Design- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	Make- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	Evaluate – Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world.			

Key Vocabulary	
Levers	A rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other.
Pivot	The central point, pin, or shaft on which a mechanism turns.
Mechanisms	Mechanisms make things move. They help machines and objects work.
Rotate	Move or cause to move in a circle round an axis or centre.
Bind	Tie or fasten (something) tightly together.
Design	A plan or drawing produced to show the look and function or workings of a building, garment, or other object before it is made.

There are many types of apparatus in a



Linking Thinking Across Our Learning Journey						
Early Years	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Once upon a time- Building structures	Homes – Structures	Stable structures	British Inventors	Story books – Mechanisms	Building Bridges- Mechanisms	Fairgrounds- Mechanisms