

<b>Year Group: 1</b>		<b>Unit: Mechanical Systems</b>
<b>National Curriculum Aims</b> The national curriculum for design and technology aims to ensure that all pupils: <ul style="list-style-type: none"> <li>➤ develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world</li> <li>➤ build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users</li> <li>➤ critique, evaluate and test their ideas and products and the work of others</li> </ul>		<b>Technical knowledge</b> <ul style="list-style-type: none"> <li>➤ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</li> </ul>
		<b>Product Outcome</b> Moveable storybook
<b>Prior Learning:</b> Early experiences of working with paper and card to make simple flaps and hinges. Experience of simple cutting, shaping and joining skills using scissors, glue, paper fasteners and masking tape.		
<b>Curriculum</b>	<b>Learning Intention/possible activities</b>	<b>Knowledge and Key Vocabulary</b>
<b>Investigate and Evaluate</b> <ul style="list-style-type: none"> <li>➤ explore and evaluate a range of existing products</li> </ul>	<b>Can I explore sliders and movement?</b> Make the slider. Make the slot. Insert the slider in the slot. Children explore slider created.	<b>Knowledge:</b> <ul style="list-style-type: none"> <li>- Know that a mechanism is a device used to create movement in a product.</li> <li>- Name at least 2 everyday products which use levers.</li> <li>- Know a slider is a rigid bar which moves backwards and forwards along a straight line.</li> <li>- Know a slider does not have a pivot point.</li> </ul>
<b>Design</b> <ul style="list-style-type: none"> <li>➤ design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>➤ generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul>	<b>Can I design a moving story book?</b> Design three pages of my moving storybook by: drawing background pictures; drawing the moving parts; deciding whether I will use a side-to-side slider or an up-and-down slider on each page and labelling the movement of each type of slider.	<b>Vocabulary:</b> slider, lever, pivot, slot, bridge/guide card, masking tape, paper fastener, join pull, push, up, down, straight, curve, forwards, backwards design, make, evaluate, user, purpose, ideas, design criteria, product, function

<p><b>Make</b></p> <ul style="list-style-type: none"> <li>➤ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</li> <li>➤ select from and use a wide range of materials and components, including construction materials, textiles, according to their characteristics</li> </ul>	<p><b>Can I construct a moving picture?</b></p> <p>To make a moving picture by: drawing my background; drawing and cutting my moving parts; making sliders for my moving parts and putting all my parts together to create my moving picture.</p>	
<p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>➤ evaluate their ideas and products against design criteria</li> </ul>	<p><b>Can I evaluate my finished product?</b></p> <p>Review the success of the product by testing it (reading it to reception children) Evaluate the product against the design criteria. Consider what I have learnt from making a moving story book.</p>	
<p><b>Thinking Deeper:</b> Consider ways in which their design could be altered to make it easier to make as well as to be more appealing to the target audience.</p>		
<p><b>Links to other subjects:</b></p>		
<ul style="list-style-type: none"> <li>• Subject Specific links- Art and Design – pupils to use their drawing skills.</li> </ul>		
<ul style="list-style-type: none"> <li>• Personal Development – teamwork, building resilience when ideas do not work straight away,</li> </ul>		
<ul style="list-style-type: none"> <li>• SMSC – social – working with others, offering and receiving feedback on designs and products</li> </ul>		
<ul style="list-style-type: none"> <li>• Cultural Capital – to have an awareness of the importance of traditional tales and nursery rhymes within British culture and history.</li> </ul>		
<ul style="list-style-type: none"> <li>• Careers – architects, builders</li> </ul>		
<ul style="list-style-type: none"> <li>• British Values – Respect &amp; Tolerance- respecting the designs of others when evaluating each other's products</li> </ul>		
<ul style="list-style-type: none"> <li>• Equality – to consider how not all children are equal and that some children living in poverty or deprived areas of the world do not get to experience such pleasures of rhymes and moveable story books.</li> </ul>		