## **DT Scheme of Work**



Y1 Moving Pictures		
Links made with	Dependent on purpose/theme of the picture:	
other subjects	<b>Science:</b> Everyday Materials - Distinguish between an object and the material from which it is made.	
	Maths: Length and height	
	<b>English:</b> Link this unit to work on texts where children identify an audience for a particular genre of writing or their own work, considering the effect this has on the use and organisation of language	
	Art: Drawing unit in Year 3: eg colour, shape, texture	
	History – Jowett cars	
The BIG Question	Can pictures come to life?	
The BIG Outcome	To create a picture using a lever or slider to make characters move.	
DT objectives (link to NC)	<ul> <li>Design         <ul> <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,</li> </ul> </li> </ul>	
	drawing, templates, mock-ups and, where appropriate, information and communication technology  Make	
	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	
	<ul> <li>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul>	
	<u>Evaluate</u>	
	Explore and evaluate a range of existing products	
	Evaluate their ideas and products against design criteria	
	<ul> <li>Technical knowledge</li> <li>Build structures, exploring how they can be made stronger, stiffer and more stable</li> </ul>	
	<ul> <li>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</li> </ul>	
Prior knowledge What prior knowledge is needed for children to be	<ul> <li>This unit builds on children's early experiences of working with scissors, paper, card and joining products.</li> <li>Pupils will have learned how to handle and use scissors safely to cut paper and thin card</li> </ul>	
successful in this unit?	<ul> <li>joined materials using tape, glue and paper</li> <li>drawn pictures that they can cut out</li> <li>followed simple oral instructions</li> </ul>	
Future learning Consider the conceptual knowledge within a subject that pupils need for future	This unit gives prior knowledge to:  Y2 – Design and make a wheeled toy using axles and wheels  Y3 – Design and make a moving robot using pneumatics  Y4 – Design and make a story book using a range of mechanisms  Y5 – Design and make a moving vehicle using a battery  Y6 – Design and make a fairground using electronic systems	

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learning not just the recall of facts but the importance of concepts	
Resources	<ul> <li>a selection of products with moving parts such as: scissors, balances, storybooks, badges, puppets, cards</li> <li>a selection of favourite storybooks</li> <li>disposable pictures which can be cut up for experimentation</li> <li>paper, card, pre-cut strips of card</li> <li>paper fasteners, masking tape, glue, plier punch or single-hole punch, scissors</li> <li>a selection of coloured papers, pens, paints</li> </ul>
Vocabulary/ Glossary	Designing: idea, discuss, choose, drawing, labelling  Making: hole punch, paper fastener, join, cut carefully, planning  knowledge and understanding: eg moving, handle, lever, pivot, slider, direction, blade, metal, order, sequence, length  Types of movement: balance, movement, forward, backwards, pull, push
Knowledge	<ul> <li>The knowledge that children will learn and remember:</li> <li>Understand the difference between different mechanisms: a lever and a slider and how they create different movement</li> <li>to know that levers are used in everyday products and be able to identify these</li> <li>to know how to make simple sliding and lever mechanisms</li> <li>know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</li> <li>to know how to use tools safely</li> <li>to make their design using appropriate techniques</li> <li>to know how to evaluate their product by discussing how well it works in relation to the purpose</li> </ul>
SEND expectations	Children will have made a moving picture with help – either in developing their ideas or in using tools to make it.
Questioning Questions you can pose to deepen, consolidate and challenge pupil's understanding Suggested activities	1. Who is your picture for? (audience) 2. What is the purpose of your picture? (persuade, inform, entertain) 3. How will the picture be used to (persuade/ inform/entertain) your reader? 4. Which parts of your book will move? Why have you chosen these? 5. Which mechanisms (slider/lever) will you use? 6. Does your product do what you intended it to do? (fulfil its purpose)  Discuss with the children a collection of books, cards and other products that have moving parts.  What does the moving part do?  How does it work?  What effect does it have? Surprise?  Does it show how something works?  Does it work well?
	Use a simple moving picture book to talk about how levers and sliders can be used to

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make movement and bring stories to life.

Use some examples of simple lever and sliding mechanisms made from card or construction kits to discuss with the children how these mechanisms work. Introduce new vocabulary eg 'lever' and 'pivot'.

Ask the children to investigate products that include levers eg a balance, a pair of scissors. Encourage children to make drawings with arrows to show movement and label parts/materials eg blade, handle, metal.

Demonstrate how to make simple sliding mechanisms and lever mechanisms using card strips and paper fasteners. Ask the children to explore the theme of 'appearing and disappearing' using sliders.

Explore simple lever mechanisms using construction kits.

Ask the children to draw a picture of themselves on card and make one part of their body move. Remind children not to draw too small. (A prepared drawing of a child/teddy could be given for this activity.)

Ask the children to practise punching holes eg make a paper chain decoration or a chain with their names on.

Children could model a pair of scissors with card or practise making levers and linkages by copying the examples.

Children could practise stiffening – give them a picture from a newspaper, ask them to make the arms move by cutting and using paper fasteners. If the arms are too floppy, show how to make them stiffer with straws and pipe cleaners.

Discuss with the children the requirements for their story with a moving picture. Who is the story for? What might it be like? How could you do this?

Divide up a familiar story into sections. Organise the children to work on different sections of the story. What must the individual picture do? How is it going to move?

Discuss with the children the types of finishing techniques that could be used eg collage, paint, felt-tip pens.

Discuss with the children the order in which things need to be done. How could you do this? What could you use? What do you need to do first?

Ask the children to model their ideas first in paper or card (this mechanism could be used in the final picture or model).

Talk through ideas with the children as they begin to make and during different stages of making. How well is this working? What could you do to make it better?

Evaluate the final moving picture by discussing strengths and areas for development.