

Prior Learning:

- ✚ Year R – junk modelling, cut and stick, cutting skills, animal shelter making, den making, fixing emergency vehicles.

National curriculum:

TECHNICAL KNOWLEDGE

Build structures, exploring how they can be made stronger, stiffer and more stable.

Explore and use mechanisms for example levers, sliders, wheels and axels in their products.

DESIGN

Design purposeful, functional, appealing products for themselves and others based on design criteria.

Generate, develop, model and communicate their ideas through talking, drawing, templates, mock ups and where appropriate, ICT.

MAKE

Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and

Vocabulary:

Moving, parts, materials, paper, card, cutting, joining, decorating, designing, evaluating, right, left, up, down, turning, side to side.

Snapshot overview

Technical knowledge

Introduce moving pictures.
Joining
Leavers
Mechanisms



Design Planning

Writing
Colouring



Make

Joining
Cutting
Applying design

Evaluate

Verbally
Collaboratively
Meeting a success criteria.




DT Medium Term Planning

Year Group: 1

Term: Spring 1

Topic: DT

	Learning Objective	Input (including key questions and vocabulary)	Differentiation	Key Learning
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Technical Knowledge</p>	<p>I can learn and explore different mechanisms for a product (e.g. sliders, levers/pivot and pop up)</p> <p><u>Longer session</u></p>	<p>Define design and technology. Technology is the parts and things you make and the techniques you use. The design is the overall thing you want to make – the product. (Make sure this is displayed in room throughout year so can be referred to whenever DT is taught). Show children a lego car, and discuss how it was put together. Did we know how to put it together or did we have to follow a design? Show the lego design (instructions steps to make it) discuss that someone has designed this car, they've decided what I need and they've broken the design down in to steps so I can make the final product. The technology is the bricks and parts needed. The technique used is following the instructions and putting the pieces together.</p> <p>Our design criteria is to make a moving picture – to make a moving a picture you need the following: pop up (concertina folded card and picture on end), a slider and a moving part with a pivot/lever.</p> <p>Show the chn a premade individual example of each moving feature:</p> <ol style="list-style-type: none"> 1. Pop up  2. Slider  3. Moving part with pivot/lever  <p>Model how these are made giving a running commentary as you make them. Chn to then have a go at making their own pop up, slider and moving part with pivot/lever. They can choose what the picture moving is (slider nay vehicle, pivot any underwater creature, pop up any person)</p>	<p>Adults to lap and facilitate as required</p>	<p>Children to be able to talk about what design and technology is.</p> <p>Children to be able to explore different mechanisms for a product.</p> <p>Children to make a pop up, slider and moving part/lever (this can be with adult support)</p>
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I can design a functional product generating ideas and communicating them through drawing (e.g. a plan).

Recap previous learning.

WE need to create a design criteria for a moving picture. What criteria do we need to include (must have at least one pop up, lever/pivot and slider, must have animals, must be colourful and look interesting etc). create this list as a class and display on the working wall.

Discuss that we will be creating a moving picture of a jungle scene. Share pictures of a jungle with animals - discuss on this picture what animal/part would you choose for the slider/lever/pop up. Why? What effect would this have?



(google images)

Teacher to model the process of design. Model looking at the jungle pictures and drawing own background design. Model looking at the animals and choosing which ones to include and which ones will move. Model drawing the animals and annotating them with the moving aspect (e.g. labelling the monkey with pivot/lever). When drawing the animals model describing the sizing of them, ensuring the picture fills the page and the animals are appropriately sized for this.

Explain to children they will now design their product on a4 card, explain that this will be the actual size of their finished piece so they need to think about the sizing of the pictures and filling the page. Children to label which pivots, levers, pop ups, sliders they will use. Chn to go off and design their moving jungle picture.

Children with fine motor to be supported and with cutting. If any child struggles to describe how their animal moves. Teacher to load up a video and build a word bank.

Children to be able to contribute to a class design criteria for a moving picture.
Children to design their product talking about which parts will be the moving part.
Children to label their design for which is a pivot, lever, pop up or slider.

Make	I can select the tools, materials and equipment to make a designed product.	<p>Recap previous learning and designs from yesterday</p> <p>Teacher models how to use their design from yesterday to make the final product. Ensure you have revisited the three techniques chn will need from the first session and how they are made (pop up, lever/pivot and slider). Model looking at design and describing the sizing of the pictures/animals and ensuring these sizes are kept to when making the final product.</p> <ol style="list-style-type: none"> 1. Model doing the background using design from yesterday 2. Model using a separate piece of card to draw and cut out animals for the moving sections. 3. Model creating the moving components for the animals. <p>Chn to use their plans from yesterday to make their final pieces on a4 card.</p>	Children with fine motor to be supported with cutting etc.	<p>Children to design their product.</p> <p>Children's product to have moving sections and components.</p> <p>Children's designs to be in proportion in size.</p>
Evaluate	I can evaluate my product against design criteria.	<p>Look back at what was made yesterday, Model evaluating own product based on final design using the following questions to encourage a class discussion</p> <p>Do the moving parts work? Do they move smoothly? Is the moving part effective? What would you change next time?</p> <p>Model writing evaluation statement comparing the design to the final product based on the class discussion questions. e.g. My final product matches my design because _____</p>		<p>Children to be able to talk about their design and what went well with it.</p> <p>Children to be able to say how their design matches their design criteria.</p>

Impact: Expected duration for this topic- 2 days.

To be able to make a pop up, pivot/lever and slider for a specific design criteria

To be able to create a design following given criteria

To be able to create a final product using design criteria

To be able to evaluate a final product against design criteria