

Design & Technology

Moving Pictures

Year Three

Bishop's Waltham Junior School

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	Learning Objectives	Key Skills	Concepts	Lesson Content
1	<ul style="list-style-type: none"> - To explore and investigate moving books. 	<ul style="list-style-type: none"> - Identify different types of movement in books. - Use key vocabulary – fixed pivot, moving pivot, lever, linkage, mechanism 	<ul style="list-style-type: none"> - Movements are achieved by mechanisms, although these may be hidden. - Different mechanisms achieve different movements 	<p><u>Investigative Evaluative Activity</u></p> <ul style="list-style-type: none"> - Outline design brief – To create a moving picture. Look at a range of picture books and other items containing moving parts. Consider;- - Where have they seen moving pictures before? - Why are they used? - How might the parts be moving? - How could we find out? - Look at linkage and lever models. Introduce term 'fixed pivot' and 'loose pivot.' - Draw diagrams of items containing fixed and loose pivots. Label pivots and direction of movement. - What everyday items rely on pivots and mechanisms?

2	<ul style="list-style-type: none"> - To construct several different linkages / mechanisms. 	<ul style="list-style-type: none"> - To use skills safely to create holes and joins materials. - To create fixed pivot mechanisms. 	<ul style="list-style-type: none"> - Different mechanisms achieve different movements 	<p><u>Focused Practical Task / Safety in DT</u></p> <ul style="list-style-type: none"> - Recap previous session by looking again briefly at moving objects. Recap key vocabulary and define. Look at lever and linkage examples from resources box. What is the difference between a lever, linkage and mechanism? - Discuss different moving parts –how is it been created? What materials and tools have been used? What direction of movement has been achieved? - Identify different types of movements – linear, rotary, oscillating and reciprocating. <p>Health and Safety Points:</p> <ul style="list-style-type: none"> - Demonstrate safe practice in DT – using scissors, making holes, scoring and moving around the classroom. - Carousel – children to look at different mechanisms at tables and try to recreate. By end of session children to create two mechanisms with a fixed pivot. - Compare and contrast mechanisms with someone with a different type. How do they differ? How many parts does it contain? What was difficult? - Begin to think about how they match to movements achieved in moving books from session 1. - Discuss ways we can solve problems that have arisen – e.g. laminating card to strengthen, holding levers in place.
3	<ul style="list-style-type: none"> - To construct several different linkages / mechanisms. 	<ul style="list-style-type: none"> - To use skills safely to create holes and joins materials. - To create one fixed pivot and one loose pivot mechanisms. 	<ul style="list-style-type: none"> - Different mechanisms achieve different movements 	<p><u>Focused Practical Task</u></p> <ul style="list-style-type: none"> - Recap previous session by looking again briefly at moving objects. Recap key vocabulary and define. Look at lever and linkage examples from resources box. What is the difference between a lever, linkage and mechanism? - Discuss different moving parts –how is it been created? What materials and tools have been used? What direction of movement has been achieved? <p>RECAP SAFETY EXPECTATIONS FOR SESSION AND INDIVIDUAL TOOLS.</p> <p>Carousel – children to look at different mechanisms at tables and try to recreate. By end of session children to create two mechanisms with loose pivots.</p> <p>Compare all mechanisms made. Discuss how to keep levers and linkages in place using guides. Discuss any problems / difficulties encountered and how these were overcome? What materials worked well? How can we strengthen levers etc.</p>

4	<ul style="list-style-type: none"> - To design own moving picture, identifying mechanisms to be used. 	<ul style="list-style-type: none"> - Identify types of movement required for own design and match to appropriate mechanisms. 	<ul style="list-style-type: none"> - By taking time and care on planning, it leads to a better finished product. 	<p><u>Designing</u></p> <ul style="list-style-type: none"> - Recap design brief for unit. Focus on scene they want to recreate. - Who will their audience be? How will this influence the product we are creating? (Suggest designing for a younger audience – so they can focus on designing a bright, eye-catching scene that is durable for small hands) - Create success criteria for finished designs relating to the design brief. - Which parts of the image will be static and which parts moving? - Children will need to consider and design – back drop, characters, mechanisms, how they will keep the mechanisms in place and how they will conceal the mechanisms. - Look at available materials and how these can be adapted or combined. E.g. strengthening card. - Annotate designs to show consideration of materials and fixing methods selected. - This may need to be done over several sessions.
	<ul style="list-style-type: none"> - To consider how text might contribute to their designs. 	<ul style="list-style-type: none"> - Link to computing – use Word to change font, size and add text effects. 	<ul style="list-style-type: none"> - Creating a balance of text and picture on a page. 	<ul style="list-style-type: none"> - Consider adding text to pictures. - What font size and type will they use?
5	<ul style="list-style-type: none"> - To use appropriate skills and techniques to safely make product. 	<ul style="list-style-type: none"> - Order the main stages of making. - Select from and use appropriate tools with some accuracy to cut, shape and join paper and card. - Select from and use finishing techniques suitable for the product they are creating 	<ul style="list-style-type: none"> - To understand the need to problem solve and adapt their designs whilst creating. 	<p><u>Making and Evaluating</u></p> <ul style="list-style-type: none"> - Recap design brief and success criteria - Recap safe working practices in DT and relation to specific tools. - Children to begin making. Stop regularly to encourage ongoing evaluation skills. - What is working well? - What problems have been encountered? - Has anyone found any solutions to the problems encountered? Highlight good problem solving skills. - Evaluate models against plans. If time make quick annotations to plan in coloured pen to show adaptations.

6	<ul style="list-style-type: none"> - To consider the overall effectiveness of the product 	<ul style="list-style-type: none"> - Describe product and its effectiveness using learnt vocabulary for systems and movement types. 		<p><u>Product Testing and Evaluating</u></p> <ul style="list-style-type: none"> - Consider sharing moving pictures with intended audience. E.g. visiting the infant school. - What was our design brief? - What were our success criteria? - Evaluate product against success criteria. - Celebrate whole task success - What skills have you learnt? - What would they repeat? Would they make any changes if they made another one? - Are there any adaptations that can be made now to make the product longer lasting? If possible, allow time for this. - CELEBRATE PRODUCTS!!
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