

Year Group: 1	Term: Autumn	Topic: Mechanisms
<b>NC Links</b>		
<p>To design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>		
<b>Links to Rights Respecting</b>		
<p>Article 28 - Every child has the right to an education. Primary education must be free and different forms of secondary education must be available to every child. Discipline in schools must respect children's dignity and their rights.</p>		
<b>Caedmon Curriculum Drivers</b>		
<p><b>Aspirations and Careers</b></p> <ul style="list-style-type: none"> <li>-embracing challenges that help us to grow</li> <li>-understanding that resourcefulness can help us to be the best version of ourselves</li> <li>-understanding how our learning links to the wider world</li> <li>-having an awareness of the local labour market</li> </ul>		
<b>Links to North East Ambition</b>		
<p>Link a lesson to the career of an Architect. What does the job entail? How does construction link to this job? What construction skills can you use in this job?</p> <p>Link a lesson to the career of a Tradesperson (bricklaying, roofing, painting, carpentry, masonry or welding etc.). What do these jobs entail? What kinds of trades can you specialise in? How does an understanding of materials and construction support this job? What skills are required for these jobs?</p> <p>Gatsby Benchmark 4 - Linking curriculum learning to careers</p> <p>Gatsby Benchmark 5 - Encounters with employers and employees</p>		
<b>Topic Overview</b>		
<p>Children will identify whether a mechanism is a side-to-side slider or an up-and-down slider and determine what movement the mechanism will make. Children will clearly label drawings to show which parts of their design will move and in which</p>		

direction. Children will make a picture, which meets the design criteria, with parts that move purposefully as planned. They will evaluate the main strengths and weaknesses of their design and suggest alterations.

### Possible Visits/Visitors

Visit into the local library to see selection of moving books.

### Essential Subject Skills to be covered

- Explain how to adapt mechanisms, using bridges or guides to control the movement.
- Design a moving story book for a given audience.
- Follow a design to create moving models that use levers and sliders.
- Test a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed
- Review the success of a product by testing it with its intended audience.

### Overall Learning Outcomes

By the end of this unit, children will have approached a design brief and developed an idea for a product based on this. They will have explored various materials and used a range of methods such as cutting and joining to combine them for an intended purpose. They will discuss their ideas through talk and writing. They will develop a range of techniques then make their product safely. They will evaluate their product and discuss strengths and weaknesses of their work.

### Learning Intentions (for use in self-assessment at end of topic)

- To explore mechanisms.
- To design a moving picture book
- To construct a moving picture
- To evaluate a finished product

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### Sequence of lessons

- Children will be shown a slider mechanism and explore how it works before making a slider

- Children will be presented with a design brief detailing the product they need to make (a moving picture book), who the product is aimed at (Reception children), what the target audience would like (bright colours, cartoon images etc) and what it needs to include (interactive moving parts)
- Children to design and construct their moving book.
- Show a selection of Reception class the moving books; Reception class to test the products. Explain to children what evaluation is and how making small changes is an important part of the design process. Children (Y1) to reflect on what the response to their books was from Reception class; what went well, what didn't go well and what could be improved if the child was to make the product again.

#### **Suggested Strategies for Recording Learning**

- Design and sketch ideas
- Market research surveys for target audience/interviews with Reception class
- Write comments/teacher to write verbal feedback.
- Annotate ideas
- Photograph work