|  |
| --- |
| **Year:** 1 **Program of Study:** Mechanisms – Sliders and Levers **N.C POS:*** *Design purposeful, functional, appealing products for themselves and other users based on design criteria.*
* *Generate, develop, model and communicate their ideas through drawing and mock-ups.*
* *Select from and use a range of tools and equipment to perform practical tasks [for example cutting, shaping, joining and finishing].*
* *Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.*
* *Explore and evaluate a range of existing products.*
* *Evaluate their ideas and products against design criteria.*
* *Explore and use mechanisms [for example levers, sliders, wheels and axles], in their products.*

**Concept:** technology, impact, legacy, change, inventions, innovation, application, cause and effect.**Key Vocabulary:** 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, mechanism.**Prior Learning:** 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.**Future learning:** Further work with mechanisms in KS1 – wheels and axles. Work with levers and linkages in LKS2. Further develops knowledge of pivots (fixed and loose) and work with linkages which join two levers together.  |
| **Core Knowledge- non-negotiable****Explore*** Explore a range of existing books and everyday products that use simple sliders and levers e.g. wheel barrow, brakes on a bike, seesaw, children’s toys (hungry hippos)
* Practise making simple sliders and levers using paper.
* Explore: Why might we use a slider and not a lever? Or a lever and not a slider?

**Designing*** Generate ideas based on simple design criteria and their own experiences, explaining what they could make e.g. Christmas card with moving part for a friend or family member, page from a book for a young child, a toy for a child.
* Develop, model and communicate their ideas through drawings and mock-ups with card and paper.

**Making*** Plan by suggesting what to do next.
* Select and use tools, explaining their choices, to cut, shape and join paper and card.
* Use simple finishing techniques suitable for the product they are creating.

**Evaluating*** Evaluate their ideas throughout and their products against original criteria.
 |
| **Wider Influences*** Festivals and celebrations – potential link with Christmas/sending greetings cards.
* Science – potential link with seasons (winter)
* Exploration of books with sliders
* Exploration of toys with sliders and levers
* Exploration of real life objects with sliders and levers.
* Job opportunities – engineer, designer
 |
| **Enduring Understanding*** Understand the difference between sliders and levers.
* Understand that different mechanisms produce different types of movement.
* Know and use technical vocabulary relevant to the project.
 |