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| **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. |