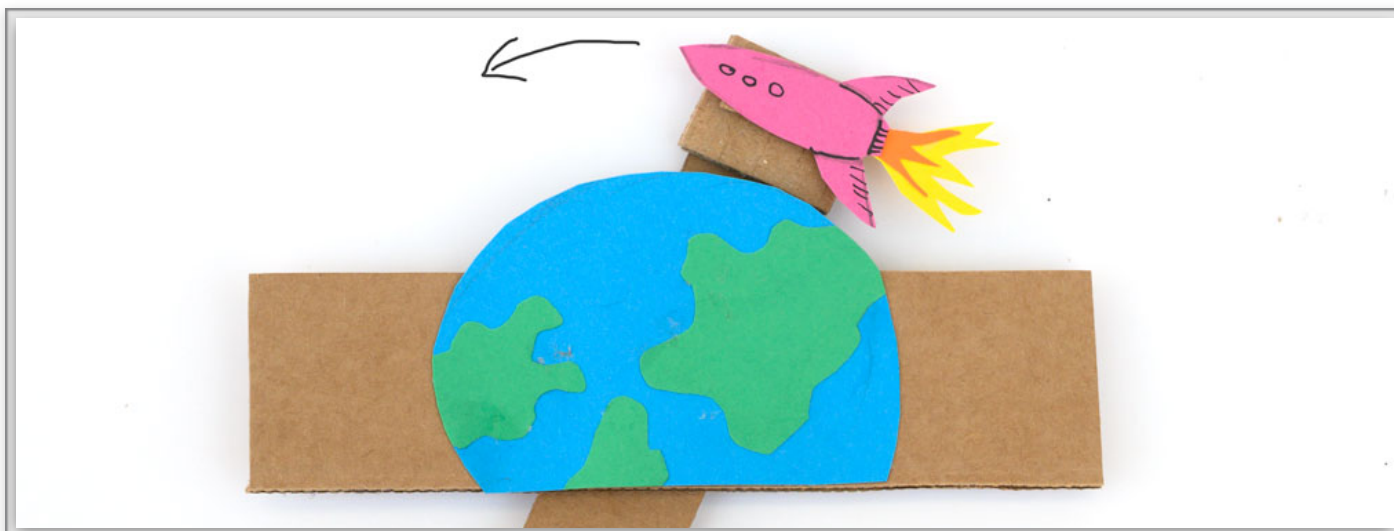


Templemoor Infant and Nursery School

Year 1: Design and Technology



Term	Spring 1
Theme	Levers and Sliders
Rights Respecting Articles	Article 28, 29.



BACKGROUND INFORMATION

The children have experience of simple cutting, shaping and joining skills using scissors, glue, paper fasteners and masking tape.

OUTCOMES

- I can create simple designs to make something.
- I can talk to someone about my product.
- I can choose and use a range of tools and equipment (e.g. cutting, joining, finishing).
- I can evaluate my work.
- I can use levers and sliders in a product.

NATIONAL CURRICULUM OBJECTIVES

- To design purposeful, functional, appealing products for themselves and other users based on design criteria.
- To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
- To select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).
- To select from and use a wide range of materials and components, including construction and materials, according to their characteristics.
- To explore and evaluate a range of existing products.
- To evaluate their ideas and products against design criteria.
- To explore and use mechanisms (levers and sliders), in their products.

TRANSFERRABLE READING, WRITING, MATHEMATICS AND CROSS CURRICULAR SKILLS

English - Spoken language, questioning, vocabulary.

Mathematics - describe position, direction and movement.

Computing - algorithms (instructions).

Art and Design - use colour, pattern, line, shape.

KEY VOCABULARY

Slider	Lever	Pivot	Slot	Bridge	Guide
Join	Fasten	Pull	Push	Up	Down
Straight	Curved	Forwards	Backwards	Design	Make
Evaluate	User	Purpose	Ideas	Criteria	Product
Left	Right				

KEY SKILLS AND KNOWLEDGE

- To understand what a lever and a slider is, and how they are used in mechanisms.
- To be able to make a lever and a slider.
- To evaluate different lever and sliders, discussing their strengths and weaknesses.
- To discuss and plan ideas to make their own lever and slider.
- To evaluate the strengths and weaknesses of their own lever and slider.

SEQUENCE OF TEACHING

- Investigative and Evaluative Activities: Children explore and evaluate a collection of books and everyday products that have moving parts, including those with levers and sliders. e.g. What is it? Who is it for? What is it for? What do you think will move? How will you make it move? What part of the product moved and how did it move? How do you think the mechanism works? What else could move in the product? How well does it work? Introduce and develop vocabulary.
- Demonstrate simple levers and sliders to children. How does the slider move? How does the lever move? Which part of the mechanism is the pivot? What does the movement of the slider and lever remind you of? Children replicate the slider and lever, adding pictures to mechanisms.
- Discuss with the children that they will be designing, making and evaluating a scene with a moving object.
- Generate simple design criteria with the children, e.g. the mechanism should work smoothly, it should make the right type of movement.
- Discuss the finishing techniques the children might use e.g. using digital text and graphics, paint, felt tipped pens or collage. Whole class discussion about the order in which the mechanisms will be made. Children plan ideas on planning sheet (background, lever and slider, resources).
- Recap plans whole class/how to make levers and sliders. Use cardboard, boxes, paper fasteners to make sliders and levers (depending on their plans, and stick on object to move.
- Continue decorating boxes to create background setting.
- Children to evaluate their developing ideas and final products against the original design criteria.

ASSESSMENT

- Formative assessment throughout the process.
- Marking plans.
- Final product assessment.
- Self-evaluation.