

Our DT Curriculum gives children the opportunity to develop skills, knowledge and understanding through designing and making functional products for a range of different users. They learn about key inventions and designers. Children are encouraged to think creatively and produce innovative designs as they explore the designed and made world in which they live.

Inspiring and enabling our school community to live life to the full



DT YEAR 4

Subject: DT
Unit: Mechanisms - Pop-up books

Characteristics of an Effective Learner

Courage
Commitment
Collaboration
Creativity
Curiosity

Prior Learning:

- Year 1 - children learn to make lever, slider and wheel mechanisms.
- Year 1 – making moving pictures
- Year 1 and 2 - how to cut and fold card carefully
- Year 3 – how to stiffen/strengthen card structures

Key Vocabulary taught in this unit:

Linkages, levers, pulleys, input, output, mechanisms, split-pin, hole punch, scoring.

Intent: What do we want the children to know, be able to do by the time they complete this unit?

Design

Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups / investigate and analyse a range of existing products

Children will design a pop-up book for a Reception child to teach them a phonics sound. They will recognise that text and pictures need to be educational as well as fun. Children learn about the invention of paper in China in 250AD.

Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. Children will draw labelled diagrams to explain how the moving pictures on each page will work.

Make

Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately/ apply their understanding of how to strengthen, stiffen and reinforce more complex structure. Children learn to accurately cut, score and fold the card components needed to make their book. They use a hole-punch with accuracy when making holes for split pins in cardboard levers and linkages. Children cut slots and windows in card. They use card and split pins to make a system of levers and linkages to make a figure move.

Evaluate

Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Children explore the range of different pop-up mechanisms in a selection of published pop-up books. Children test their finished book with Reception children and evaluate how well it met the design brief.

Impact / Outcome:

What will the final product / result be?

Design brief: Design and make a pop-up book for a Reception child to teach them a Phonics sound.

P4C Inquiry (where appropriate) – n/a

