

Year Group	3
Term	Autumn
Subject	DT

Topic	Pop up books
Curriculum Intent	To design and make a pop up book (based on climate change)

Key Vocabulary

Step pop up pop up mechanism rotary mechanism automatic pull strips spring mechanism material
Climate change vocab - fossil fuels, plastic pollution, rainforest destruction

Skills

Design

- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- Investigate and analyse a range of existing products
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Technical knowledge

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

Knowledge

- Apply understanding of how to strengthen, stiffen and reinforce more complex structures.
- Use and understand mechanical systems in their products e.g. levers and linkages

Autumn MTP

Week	Learning Objective	Activities	Differentiation	Outcome
1	LO: To brainstorm and research a design problem. LO: To make a step pop up.	Discuss with children that they are making books about climate change. Look at design cycle. Introduce problem and brainstorm ideas. Model how to create a pop-up step. Children to make a pop up step from a choice of materials. Card or different thicknesses, paper, tissue... Children to write which is best material and why.	Adult support as needed. Choose material as appropriate.	To create step pop up and select best material
2	LO: To investigate different pop-up mechanisms.	Recap the problem introduced last lesson. Children to look at examples of rotary mechanisms and open mouth pop up mechanism. Children to make these each. Move on to automatic pull strip for those who have made the two mechanisms above.	Adults support. Mechanisms being made. Extend more able to auto pull strip.	To create a rotary mechanism, open mouth pop up and auto pull strip.
3	Lesson 3 LO: To research climate change.	Explore a range of video clips, discuss and create group mind maps with headings (fossil fuels, plastic pollution, rainforest destruction) and add info on. Look at their mind maps and begin to discuss what a pop-up page might look like for each of the headings. EG – a shark's mouth full of plastic, cut trees on a step pop-up...	Mixed ability pairs/groups.	To research climate change and improve understanding.
4	LO: To design a pop-up book.	Children to recap last week's lesson and discuss what they found out. Look at the design criteria part of the design cycle. https://www.youtube.com/watch?v=VUdHe6NcfsA 3:36 minutes – discuss what do we need to do to make our pop-up book design successful? Children to use design planning format to plan their own pop up book.	Adult support when planning books.	Create an individual plan for pop up book.
5	LO: To make a pop-up book.	2 lessons. Recap different mechanisms and remind how to make them (teacher model or use video links on plan from previous lesson). Ensure all Children are clear on what they are expected to do. Leave front page to last. Children to work through creating their books, with adult support as needed.	Adult support as needed. Children to type captions if needed.	Make own individual pop up books.

6	LO: To evaluate a pop-up book	Link back to the design cycle and use evaluation questions/sheet to evaluate the effectiveness of their books.	Adult support, Sheet with tick options rather than lots of written answers.	Children to evaluate effectiveness of pop up books.
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