

Year 1- Autumn

DT Knowledge Organiser

Links to other year groups:

Mechanical Devices/New Materials-Year 10 Spring

Year 8 Design Movement / Modelling Project Prototypes: why, consumer, manufacturer Design movements - prep; practical skills: hand tools into Materials knowledge - Styrofoam; use of modelling materials Finishes

Key Vocabulary & Skills:

design
criteria
model
plan
communicate
template
strength
materials
cutting
stronger
stiffer
joining
slider
lever
pivot
wheel
mechanism
evaluate

Real World Examples:

Building a Slider Mechanism 1

- Use a hole punch to make four holes - not too close to the edge! Two straight lines and feed in the card strip.
- Fix a picture to the slider and move it back and forth. You can use a card strip to cover over the cuts.
- Check that the lever works and move the pivot if you need to.
- Stick the character to the end of the lever and move the lever to make it rise.

Constructional Diagrams & Key Info:

Can I design a purposeful, functional & appealing product?

Can I talk about it, draw it and use templates?

Can I select from and use a range of tools and equipment, including: cutting, shaping, joining and finishing and make them stronger, stiffer and more stable?

Constructional Diagrams, Mechanisms, and sliders

Sliders move from side to side and up and down

Use a single hole punch to make a hole then cut a slot

Tape or staple car onto card strip

Sticky fixers on back of card strip

A card strip could be used instead of cutting slots to allow movement

Simple mechanism movements

In a straight line

In a straight line, forwards and backwards

Round and round

In a curve

Lesson 1	Explore real world examples of moving pictures
Lesson 2	Make and evaluate a paper slider and lever.
Lesson 3	Make an improved slider using evaluation to suggest improvements
Lesson 4	Make a wheel mechanism
Lesson 5	Design a moving picture choosing one of the mechanisms to make a character move
Lesson 6 and 7	Create own moving picture using design criteria and evaluate.