



Year 2 - Autumn 2 - Design & Technology Knowledge Organiser

What I already know...

Year 1 received a request from Hamley's in London to design and create toy vehicles. They explored the different types of vehicles found in London and they used this to inspire them to design their our toy for their latest

What I will learn...

DESIGN

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

MAKE

- 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

EVALUATE

- Explore and evaluate a range of existing products

Key Vocabulary

Design criteria	A set of rules to help designers focus their ideas and test the success of
Evaluation	When you look at the good and bad points about something, then think
Input	The energy that is used to start something working.
Linkage	Lengths of material (e.g. metal or card) that are oined together by pivots, so that the links can move as part of a mechanism.
Mechanical	Something that can move because several pieces work together like a machine.
Mechanism	A collection of parts that work together to create a movement, e.g. a bicycle
Output	Output is the motion that happens as
Pivot	The central point, pin, or shaft on
Linear motion	Movement in a straight line in any one direction.
Reciprocating motion	Movement in a straight line, back and
Rotary motion	Movement in a circular motion.
Oscillating motion	Movement in a curve, back and forth.



Making a difference at The Merton

After learning the terms; pivot, lever and linkage, children set to designing a dragon that will move using a linkage mechanism. After practising making linkages of different types and varying the materials they use, children can also bring their dragons to life with the gift of movement.



Making a difference at home

- Can you find any toys or games at home which have levers? How do they move? Can you compare your toys?