Knowledge Organiser Design & Technology Year 2 Autumn

Mechanisms - Making a moving monster

St Elizabeth's Catholic Primary School
"Love one another as I have loved you"

Design criteria	A set of rules to help designers focus their ideas and test the success of them.
Evaluation	When you look at the good and bad points about something, then think about how you could improve it.
Input	The energy that is used to start something working.
Linkage	Lengths of material (for example, metal or card) that are joined 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, eg: a bicycle.
Output	Output is the motion that happens as a result of starting the input.
Pivot	The central point, pin, or shaft on which a mechanism turns or swings.
Survey	To ask a group of people questions about something and to use their answers to make improvements.

Design → Make → Evaluate

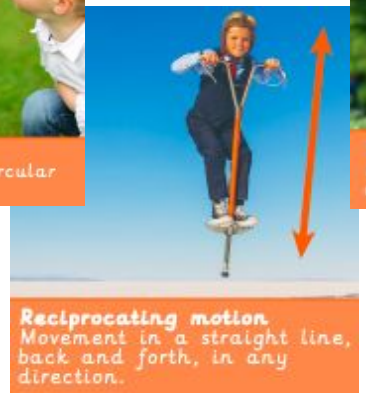
Knowledge and skills covered in this topic

- ❑ Children will know that mechanisms are a group of moving parts that work together to make a machine.
- ❑ Children will know that there is always an input and output motion.
- ❑ Children will understand that a lever is something that turns on a pivot.
- ❑ Children will know that linkage is a system of levers connected by pivots.
- ❑ Children will know that linkage uses levers and pivots to create motion.
- ❑ Children will know the four types of movement.
- ❑ Children will know how to make linkages using card for levers and split-pins for pivots.
- ❑ Children will know which materials to use based on their characteristics.
- ❑ Children will know how to evaluate their moving monster against their design criteria.

Prior knowledge

Year 1: To understand sliders and mechanisms, knowing how to create sliders for a story book.

Rotary motion
Movement in a circular motion.



Reciprocating motion
Movement in a straight line, back and forth, in any direction.

Oscillating motion
Movement in a curve, back and forth.

Linear motion
Movement in a straight line in any one direction.