Mechanisms

In Year 2 we designed and made a Moving Monster

In Year 2 we:

1) Created a class design criteria.

2) Evaluated own designs against design criteria.

3) Understood that mechanisms are a collection of moving parts that work together as a machine to produce movement.

4) Understood that an input is the energy that is used to start something working.

5) Understood that an output is the movement that happens as a result of the input.

6) Understood that a lever is something that turns on a pivot.

7) Experimented with linkages adjusting the widths, lengths and thicknesses of card used.

Vocabulary which will be new in Year 2

Design Criteria = a set of rules to help designers focus their ideas and test the success of them.

Mechanism = a collection of parts that work together to create movement.

Input = the energy that is used to start something working.

Output = 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.

Linkage = a linkage mechanism is made up of a series of levers.

Mechanical Systems

In Year 3 we will design and make pneumatic toys

In Year 3 we will:

1) Know that exploded-diagrams are used to show how different parts of a product fit together.

2) Develop design criteria from a design brief.

3) Know that pneumatic systems operate by drawing in, releasing and compressing air.

4) Understand what a pneumatic system is and that it can be used as part of a mechanism.

6) Using syringes and balloons to create pneumatic systems.

7) Use the views of others to improve designs, testing and modifying suggested improvements.

Vocabulary which will be new in Year 3

Exploded diagram = a diagram which shows all of the parts of a product, including the internal and external parts

Function = how something works

Motion = the movement an object makes when controlled by an input or output (see year 2 vocabulary)

Pneumatic system = a mechanism that runs on air or compressed gas

Net = a 2D flat shape that can become a 3D once assembled