

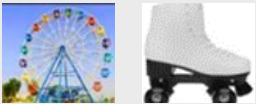
LKS2 Year 3 & 4

DT Knowledge Organiser Pneumatic Toys – Moving Monsters The focus of the unit is: Mechanisms



Technical knowledge I have already learnt about mechanisms:

* Wheels and axles are mechanisms that help things to move. Some examples of wheel and axle mechanisms are Ferris wheels and Roller skates.



* A lever is one of the most basic types of mechanism. It helps us to lift heavy loads with less effort. Levers turn on a pivot.

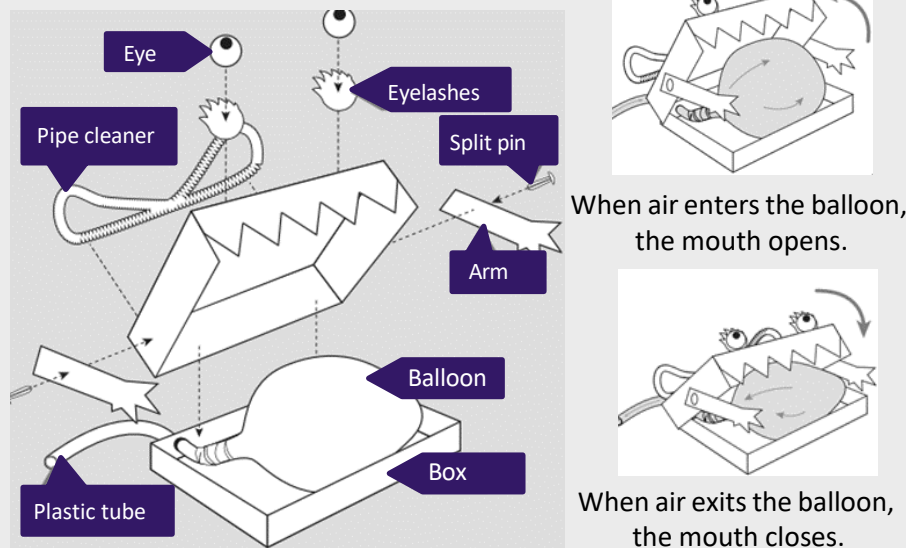


Important content to support you with this unit

Fact File

Electricity is not always needed to make machines work. Pneumatic systems work by using air. The prefix 'pneu' means 'connected to air'. For example, when you compress or squeeze air out of a bicycle pump, it will push the air into the tyres. Once the tyres are inflated (filled with air), they are able to turn smoothly.

Here is an exploded diagram of a pneumatic toy:



Knowledge Vocabulary

Compressed air		Lots of air squeezed together in a small space.
Exploded diagram		A labelled diagram which shows the internal and external parts of a product.
Function (verb)		How something works.
Input		The movement used to start a mechanism e.g., blowing air into the balloon on a balloon-powered car.
Linkage (noun)		Lengths of material (e.g., metal or card) that are linked together by a series of pivots.
Mechanism		A system of parts working together in a machine.
Motion		The movement that an object makes (left, right, up or down).
Output		The motion that occurs as a result of the starting input e.g., the car is pushed forwards when air is released from the balloon on a balloon-powered car.
Pivot		The central point, pin or shaft on which a mechanism turns or swings.
Pneumatic system		A mechanism that works using air or compressed gas.
Thumbnail drawings		Small drawings used to get ideas down on paper quickly.

Examples of products which use air to work



Air drill



Party horn



Balloon-powered car