

Year: 3  
 Term: Spring 2  
 Topic: Mechanical systems – pneumatic toys



Where does this learning link to aspirations for the future?

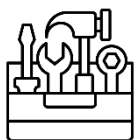
John Dunlop is a Scottish inventor who invented the first pneumatic tyres and started his own tyre company. You could be involved in a business like this or even invent something new.

In DT we follow this five step process.

Research



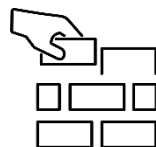
Skills



Design



Make



Evaluate



### Glossary

**cross-sectional diagram**

A drawing that shows the inside of an object as if it has been cut through.

**exploded diagram**

A diagram that shows all of the parts of a product by separating the inside and outside parts.

**input**

The movement used to start a mechanism.

**linkage**

Lengths of a material (like wood or card) that are joined together by pivots so that the links can move as part of a mechanism.

**mechanism**

A set of parts of a machine that work together to make something move.

**output**

The movement that happens as a result of starting a mechanism.

**pivot**

The central point, pin or shaft where a mechanism turns or swings.

**pneumatic system**

A mechanism that uses squashed air to cause a movement.

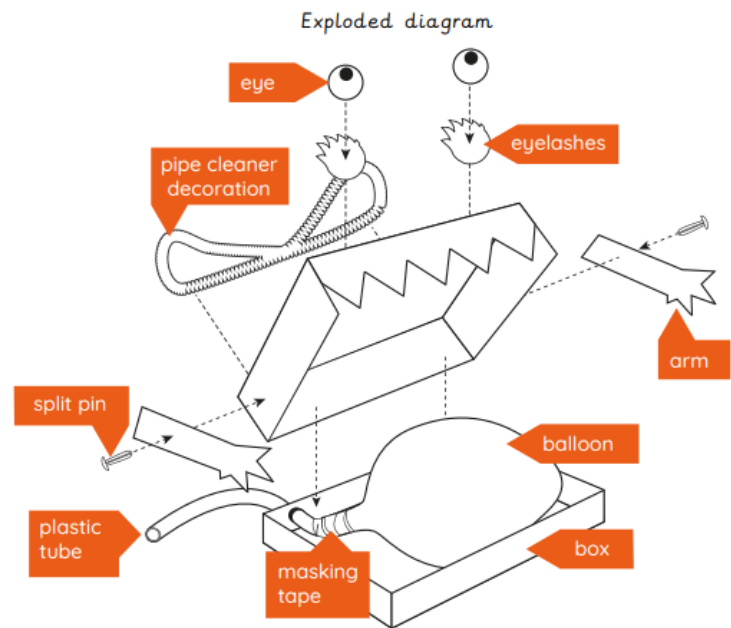
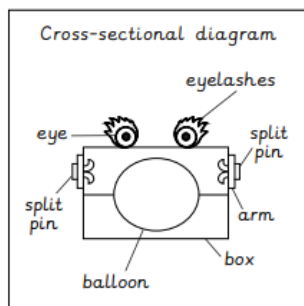
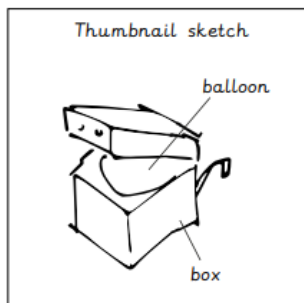
**sustainable**

Materials that do not harm the planet and can be reused or recycled.

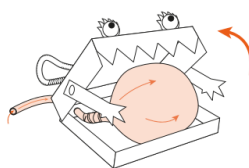
**thumbnail sketch**

A simple drawing to get ideas down on paper quickly.

Diagrams are simple pictures that show how something works or what it looks like.



When air enters the balloon, the monster's mouth opens.



When air exits the balloon, the monster's mouth closes.

