



Year 4 - Autumn - Design & Technology Knowledge Organiser: Pneumatics

What I already know...

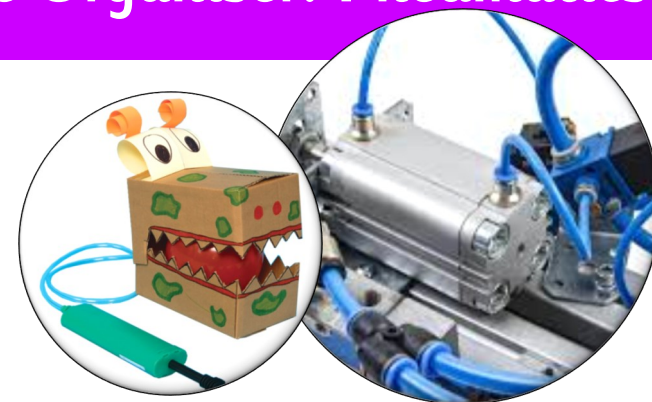
- How to create a design criteria.
- How to use simple mechanisms such as sliders and levers.
- How to use annotated sketches to show my ideas.
- How to evaluate a product against a design criteria.

What I will learn...

- How to construct a simple pneumatic system using a balloon and plastic tubing
- To understand how pneumatics helps things to move.
- To draw simple pneumatic systems
- To create a design brief .
- To use annotated sketches to communicate their ideas.
- To begin to suggest how they will make their product.
- To evaluate a product against a design criteria.

Key Vocabulary

Components	A part of a larger whole
Syringe	A tube with a nozzle and piston for sucking in and blowing out air or water.
Pneumatic system	A mechanism that uses compressed air to do move components.
Input movement	The initial movement which causes other things to happen.
Output movement	The movement that happens as a result of the input movement
Prosthetic	An artificial body part; a prosthesis.
Engineer	Professionals who invent, design, analyze, build and test machines, complex systems, structures, gadgets and materials to fulfill functional objectives and requirements
Engineering	Engineering is the designing, testing and building of machines, structures and processes using maths and science.



Making a difference at The Merton and beyond

Children continue to consider how machines help us and start to think about how more complex machines work.

They will develop a greater understanding of the role of designers and engineers and the careers that are associated with these skills.

D.T skills: How to be an engi-

Disciplinary Knowledge: D.T skills I will learn...

- Designing
- Building
- Testing
- Evaluating