


Class 3  
2022

# Knowledge organiser for D&T Mechanical Systems : Pneumatics

## Key Vocabulary

- pressurised air
- pneumatic system
- Pressure
- Inflate
- Deflate
- Input
- Output
- Pump
- hinge

The Design Process					
Design Brief	Design Criteria	Generating Ideas	Prototype	Make the Product	Evaluation
A planning document that explains <b>what</b> the project is, <b>how</b> it will be achieved and the <b>time frame</b> that it needs to be made in.	Tells you what a product must do to be successful.	Exploring different products and thinking about how they could be adapted. Creating an annotated sketch of your idea.	The first example of what the real thing will look like. It is used for testing, development and evaluation.	Using the annotated sketches and prototypes to help create your product. 	Checking that the product meets the design criteria and has achieved its purpose.

**pneumatics** - The use of pressurised air to make things move.

**Pressure**- a steady force upon a surface. Put pressure on a cut to make it stop bleeding.  
**similar words:**  
crush, force, press, pull, stress

Some real life examples include:

- pneumatic drills used in construction;
- door openings on buses and trains;
- floors that raise and lower on buses and trains, which help people get on and off;
- air brakes;
- bicycle pumps;
- tyres.



Pneumatics today are used in complicated machinery but the idea of air being used to make machines work goes all the way back to ancient Greece.

