



DT – Year 3
Summer 2
Technical Skills

Vocabulary

Tier 1	Tier 2	Tier 3
Air	design	syringe
Balloon	Build	pneumatic
Monster	evaluate	Mechanism
move	Inflate	Component
push	pressure	

● don't know
 ● I know this word
 ● I can use it in a sentence

Health and Safety

- **Use scissors safely** – always cut away from yourself and pass them handle-first.
- **Handle syringes and tubing gently** – don't force them or push too hard.
- **Don't put balloons or small parts in your mouth** – these can be a choking hazard.
- **Keep your workspace tidy** – so nothing gets lost or causes accidents.

Key Learning Objectives

1. Understand how air can be used to create movement.
2. Explore and build a simple pneumatic system.
3. Design a product with moving parts.
4. Make a monster using card, balloons, syringes, and tubing.
5. Evaluate the design and functionality of the finished product.

Key Questions:

- What is a pneumatic system?
- How does air create movement in a pneumatic system?
- What real-life objects use pneumatics?
- What materials and tools can we use to build a moving monster?
- How can you make sure your design works?
- What do you do if your pneumatic part doesn't work?
- How can you improve your monster design after testing it?
- Why is evaluation an important step in design and technology?

Core Knowledge

- Pneumatic systems use air pressure to create movement.
- You can make a simple pneumatic system with a syringe, tubing, and a balloon.
- When the syringe is pushed, air travels through the tube and inflates the balloon or moves a part.
- Pneumatic systems are used in real-life tools like pneumatic drills and bicycle pumps.
- Designers use planning, testing, and evaluating to improve their products.
- Different materials (e.g., card, straws, boxes) can be joined and adapted to create monster models with moving parts.



Useful Resource

<https://www.bbc.co.uk/bitesize/articles/zt9b8p3#zwjgfr>

<p>Research</p>	<p>Design</p>	<p>Make</p>	<p>Evaluate</p>
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