

LKS2 Aut 1 A Mechanisms



To be secure in this unit you must:

Design:

- Use ideas from other people and designs when planning and designing.
Produce a plan and explain the design with reasons why it meets the criteria.

Communicate ideas in a range of different ways including working drawings and annotation on drawings to generate, develop and extend ideas.

Make:

Follow a step-by-step plan, choosing the right equipment and materials.

Select materials and components appropriately from a wide range based on their appearance and function including construction materials, textiles and ingredients.

Evaluate:

Evaluate products for both their purpose and appearance.
Evaluate and suggest improvements for design.

Technical Skills:

Mechanisms:

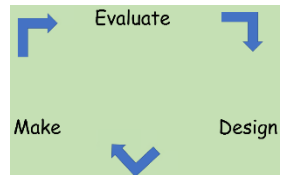
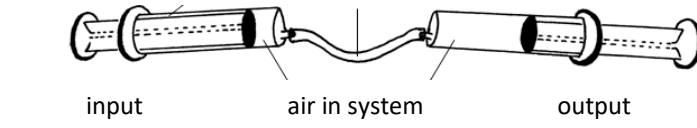
- Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).

Vocabulary

Sticky Knowledge

Inspiration

mechanism	a device used to create movement
pneumatic	a system that works using gases (air)
syringe	a tube with a nozzle and plunger
plunger	a rubber suction cup and handle
system	a set of related parts and components that have an input, process and output.
process	
compressed	something squashed, such as air in a tube
input	what goes into a system
output	what comes out of a system
inflate	fill something with air or gas to make it swell up
deflate	removing air/gas to allow an object to shrink
pressure	the force used on an object or surface



Key Experiences

- Identify the user, purpose and function from a letter from Chester Zoo
- Explore existing products that work with air; they will sketch these products and write an explanation for how they work.
- Attempt to move a book across a table using 2 syringes and tubing. They will attempt to lift a book off the table using a syringe, tubing and a balloon.
- Sketch and annotate their own design based on animals found in Chester Zoo.
- Write step-by-step instructions for making a moving animal
- Evaluate their product with reference to the design brief.



Design Brief:
Design, make and evaluate a toy that includes a part that moves using a pneumatic system.