

Year Five: Mechanisms

Knowledge Organiser



The Big Idea

Pupils will develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. They will produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. They will Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.

Research the Engineer



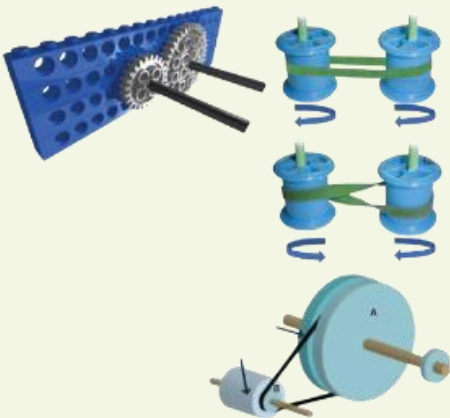
Margaret E. Knight

- Margaret invented a device that would automatically stop a machine if something was caught in it
- Later, Margaret worked in a paper bag factory. At that time, paper bags weren't flat on the bottom. Margaret thought about how much easier they'd be to use if they were flat and she went to work creating a machine that would make the bags.
- She went on to make 100 inventions and receive 20 patents.

Design Brief

Design, make and evaluate a model fairground ride that uses gears, pulleys and levers in order to move.

Make the Product



Evaluate the Product

How does my product compare to the original design specification?

Critically evaluate the quality of the design, the manufacture, functionality, innovation shown and fitness for the intended user and purpose.

Vocabulary

pulley gear drive belt gearing up or down
mechanical system follower mesh motor spindle