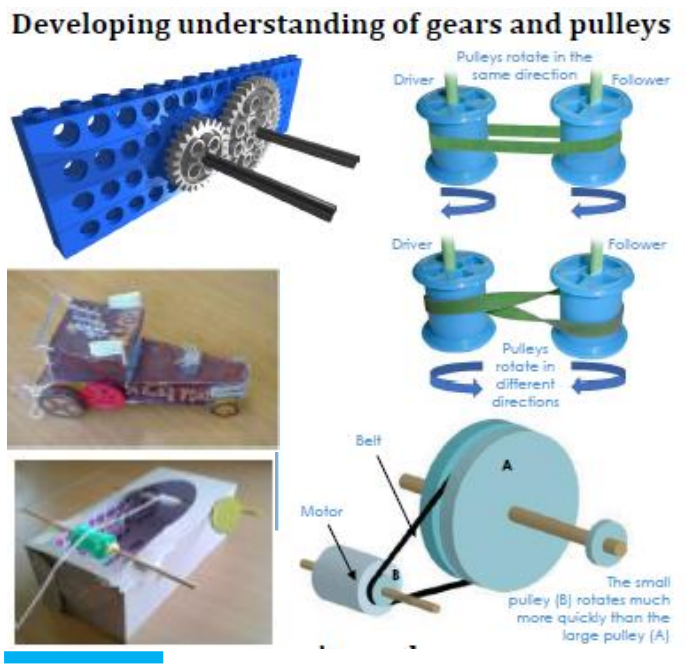
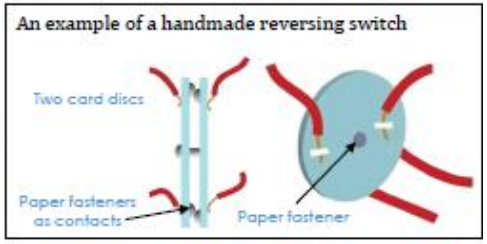
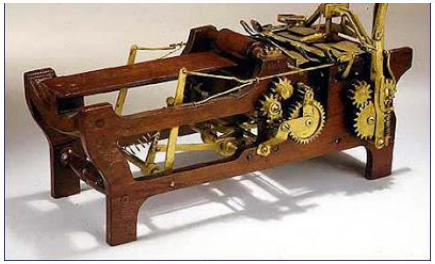
Mechanisms Knowledge Organiser – Year 5

Pulleys or Gears







Engineer Study

Margaret E. Knight

- ✓ When she was twelve, she saw an accident in a cloth factory. She invented a device that would automatically stop a machine if something were caught in it. The factories began using the device soon after.
- ✓ 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.
- ✓ Margaret is most famous for her bag machine, but she went on to make 100 inventions and receive 20 patents.

Vocabulary

Mechanical system: a set of related parts or components used to create movement.

Gear: a wheel with teeth around its circumference.

Pulley: a grooved wheel (gear) over which a drive belt can run.

Drive belt: the belt which connects and transfers movement between two pulleys.

Gearing up or down: changing the rotational speed of a product by the use of pulleys or gears.

Driver: the gear or pulley that provides the input movement to the system.

Follower: the gear or pulley that provides the output movement to the system.

'Good buildings come from good people, and all problems are solved by good design.' Stephen Gardiner