



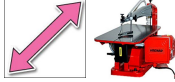

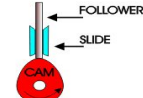
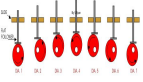
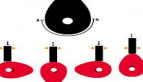
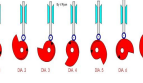




Y8 | MECHANICAL TOY KNOWLEDGE ORGANISER

| Key Terms | Description | |
|----------------------|--|---|
| Motion | The action or process of moving or being moved |  |
| Linear Motion | A motion along a straight line. |  |
| Rotary Motion | A motion turning round in a circle. |  |
| Oscillating Motion | A motion swinging from side to side. |  |
| Reciprocating Motion | A repetitive back-and-forth linear motion. |  |
| Mechanism | A system of parts working together in a machine. |  |
| Cam and Follower | Changes rotary motion into reciprocating motion. |  |
| Circular Cam | Smooth and steady up and down. |  |
| Pear Cam | Moves smoothly up and down and then pauses. |  |
| Snail cam | Slow and steady rise then a sudden drop |  |

Project Materials

Medium-density fibreboard (MDF)

- MDF is an engineered wood product made of wood fibres, wax and a resin binder
- Formed into panels by applying high temperature and pressure.
- Can be worked, shaped and machined easily.
- Can be quickly laser cut into working, mechanical prototypes or models
- Available in school in 3mm and 6mm thickness
- Used widely in the building, shop fitting and furniture trades



Product Focus: People versus machine.

Technology has reshaped the workforce and caused some jobs to disappear. Here are some jobs which are under threat from robots.

Cashier



Self-service checkouts are found in nearly every supermarket in the UK now, and it only takes one or two operators to manage a dozen checkouts or more.

Factory Worker



One factory in China has replaced 90% of its human workers with robots already, a move which it says has resulted in fewer defects and an increase in production.

Drivers



Driverless lorries are already used in container ports and are planned to be tested on UK motorways. 'Auto Pilot' cars are being driven on our roads and motorways.