Name: Click here to enter text. T.G. Click here to enter text. Date: Click here to enter text.

What can Mechanisms do?

A **mechanism** is a way of changing one kind of Choose an item. into another kind of Choose an item. from one place to another and includes levers, gears, pulleys and cams etc.

**Machines** are made up of one or more Choose an item. to solve a particular problem: they can only work when energy is applied.

Mechanisms are used because:

1. They are very versatile
2. They are efficient
3. Sometimes there is no alternative but to use a mechanism

Cams are mechanisms which can be used to change one type of Choose an item. to another. Some cams can change the Choose an item. motion.

Kinds of Movements

There are four basic types of motion.

Choose an item. line motion is known as **linear motion**, something which travels in a perfectly Choose an item. has linear motion and an example of this would be Click here to enter text.

Choose an item. backwards and forwards motion in a straight line is known as **reciprocating motion**. The needle of a sewing machine reciprocates by moving up and down repeatedly, another example of this would be Click here to enter text.

The turning of a bicycle wheel creates a Choose an item. movement which is known as **rotary motion**, another example would be Click here to enter text.

Repeating backwards and forwards circular motion, such as that done by a Choose an item. pendulum is called **oscillating motion**. Another example would be Click here to enter text.

Mechanical Advantage

Machines that help people contain a **mechanical advantage**. Mechanical advantage is the amount of effort that a machine helps one to do ones work. The larger the mechanical advantage, the easier one's work is.

The formula for Mechanical Advantage is Resistance force divided by the Effort Force.

formulas.jpg

The Resistance force is the force applied by the machine, and the Effort Force is the force applied to the machine by the human.  
Good examples such as motors and pulleys: