

Amazing Mechanisms Trail

Throughout our history, humans have built **machines** that use **forces** to help us accomplish more / less work with more / less effort, and usually faster / slower than if we did it by ourselves.

The complex machines you'll see at Amberley today are all built from smaller **components** or **mechanisms** that add up to some seriously ingenious inventions...

Levers



Radio & TV (8)



Pressing the Morse code key lifts the other end of the lever and completes the electrical circuit, creating a "BUZZ!" noise.

Can you find any other levers around the site?

1. _____
2. _____
3. _____

Morse code was invented by Samuel Morse in 1837. It helped people to send quick written messages via the telegraph system. Each letter has its own combination of dots and dashes (short and long buzzes). *Have a go! Write your name in Morse code here:*



Time-warping telecoms

Post Office in Connected Earth (32)

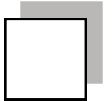
Before the invention of telecommunications, news from abroad travelled at a snail's pace.

Watch the video: how long did it take to get a message from the UK to India...?

Before the telegram: _____

With the telegram: _____

Linkages



Railway Exhibition Hall (30)

The red linkages on this locomotive keep its wheels synchronised as it runs along the track.

Press the button on the opposite wall to see how linkages work together to transfer movement through a steam engine.



Screws

Print Shop (5)



Find the wooden printing press: it is a replica of a model invented by _____.



This plastic screw is called a 'pattern'. Volunteers at the next-door Machine Shop used this as a guide to help them cut the real screw out of metal on a lathe.

Can you see where the screw fits in the press? What does it do?

Screw mechanisms can also be found in tools for drilling and boring (which means making _____).

Look for small examples in the Tools and Trades History Society (13) and large ones at the entrance to the White Pit, on your way to the Paviers' Museum of Roadmaking (42).



Labour-saving devices Back room of Electricity Hall (31)



Have a look at the 'Electricity through the Ages' exhibition.

Which invention do you think saved women the most time in the home?

Dulleys & gears



Outside Broom Maker (12)

The pulley on this hand-operated timber crane helped workers in the late Victorian times lift very heavy loads with ease.

Look at the interlocking gears. What do you think their role was as part of the crane?

Can you find any other gears around the site?

1. _____
2. _____
3. _____

