

Name: Cathy Day **Job:** Powertrain
Facilities Engineer

Cathy works as a qualified engineer in the field of vehicle and engine test engineering. This means developing the equipment and technology for use by development engineers who have to obtain specific test data.

The job involves finding or building new equipment for use in measuring vehicle engine emissions.

Benefit of the work: New engines – particularly automotives – will have to meet tighter and more stringent regulations on top levels for toxic emissions – cutting pollution and improving the quality of the air and our environment.



Think you might be interested? Here are some of the skills you might need.

Personal skills or aptitudes:

- An enjoyment of puzzles
- Curiosity
- An interest in taking equipment apart and putting it back together again

Key skills:

- Problem solving
- ICT – using a computer to the top of the software programs' potential
- Communication – following instructions; writing instructions for others to follow; getting ideas across verbally, through text and with computer-assisted designs
- Numeracy

Skills Build

First steps – moves you can take now

Build a robot with your friends and hold your own techno games or scrap-heap challenge. Turn the family vacuum cleaner into a suction pump for testing air quality. A better idea might be to join the school science club.

On to the second level

You'll need GCSEs in double science or the separate sciences, or a new GCSE in a vocational subject like engineering (worth two GCSEs), as well as maths, design technology for an understanding of how materials behave in varying conditions. Art and design are useful too, there's always a creative aspect to science and engineering work.

Third floor

Your choices could be A levels in physics, maths (perhaps, pure and applied) and one of design technology, biology or chemistry. Two of these could be taken as an AS level in year 12. Alternative ideas include a vocational A level (this counts as a double award) in engineering, or, a BTEC National Diploma in Engineering.

Fourth floor

Going on to a four-year full-time degree course leading to a MEng degree is not the only route; you can still take a three-year BSc in engineering – or start with a two-year Higher National Diploma, before converting to a degree and then specialising, through research work.