

## Make a building come to life

Imagine yourself in the most **fabulous building** in the world. Now take away the lighting, heating and ventilation, the lifts and escalators, acoustics, plumbing, power supply and energy management systems, the security and safety systems and you are left with a cold, dark, uninhabitable shell.

**Everything** inside a building which makes it safe and comfortable to be in comes under the title of 'Building Services'. A building must do what it was designed to do – not just provide shelter but also be an environment where people can live, work and achieve. **Building services are what make a building come to life.**

# CIBSE Factsheet What is Building Services?

## Building services include:

- energy supply – gas, electricity and power from renewable sources
- operation and maintenance
- heating and air conditioning
- water, drainage and plumbing
- natural and artificial lighting
- escalators and lifts
- ventilation and refrigeration
- telephones and IT networks
- acoustics
- security and alarm systems
- fire detection and protection.

In every place that you see these services, building services engineers **design, install and keep them all in working order.**

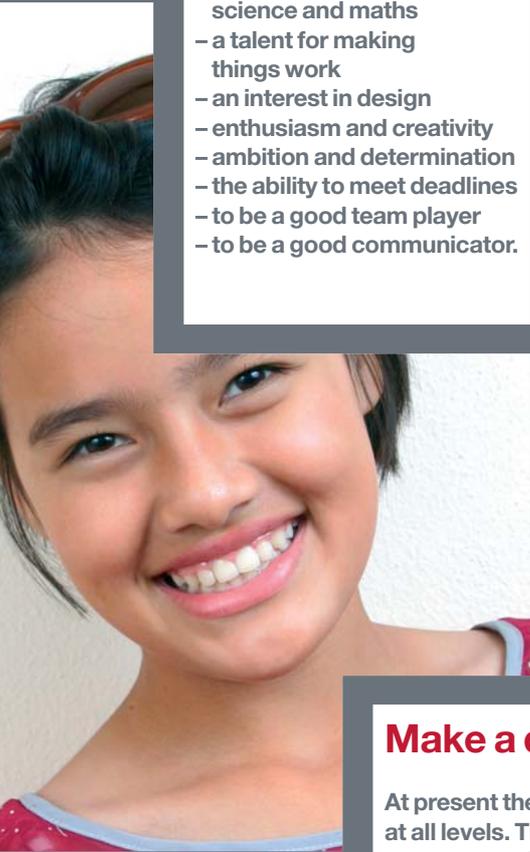
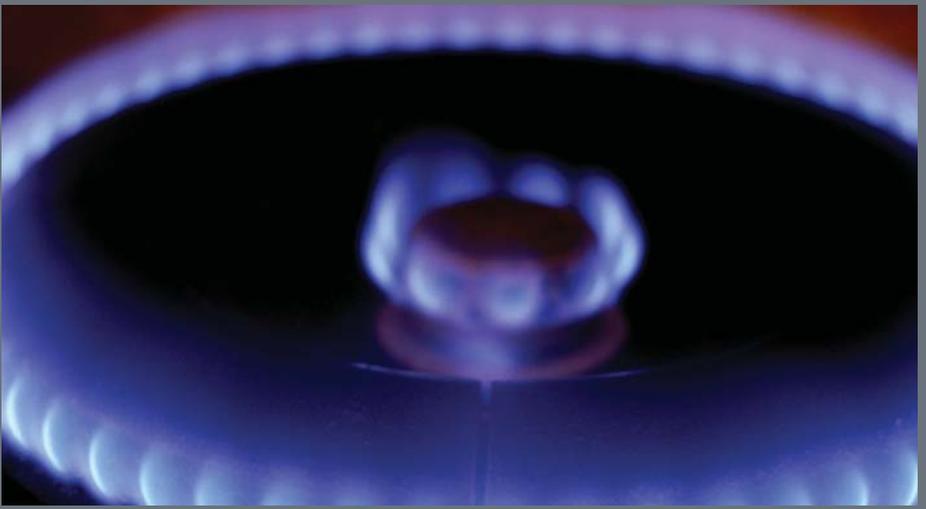
## Work in a diverse environment

**Imagine** the air filtration systems you'd need in a medical laboratory. The heating controls in a special care baby unit? How to control bacteria and humidity in an operating theatre? What about security systems at the headquarters of MI5? Lighting the new Wembley Stadium? Coping with a power cut in a 70 storey office block? This is everyday work for a **building services engineer.**

## How to get started

To get started you will need:

- at least grade C in GCSE science and maths
- a talent for making things work
- an interest in design
- enthusiasm and creativity
- ambition and determination
- the ability to meet deadlines
- to be a good team player
- to be a good communicator.



## Career development

**Careers** in building services engineering include Installation, Maintenance or Repair Electrician, Controls and Instrumentation Expert, Heating Ventilation and Refrigeration Engineer, Ductwork Installer, Plumber, Gas Fitter and Sanitation Engineer. For these, look for an **apprenticeship**, where you can earn while you learn, or then go to college for a level 3 qualification such as BTEC National or A levels. You can then work towards professional recognition as an Engineering Technician or Incorporated Engineer.

If you plan to get a **degree**, you could aim to become an Energy Manager, a Contract or Project Manager, Commissioning Engineer or Estimator, for example.

There's no limit to what you can achieve in this profession. With further study to Masters' level and post-graduation experience, you can become a **Chartered Engineer**. Many top building services engineers are responsible for leading and directing multi-million pound projects worldwide.

## Make a difference

At present there is a real shortage of building services engineers at all levels. This means that **pay** and **conditions** are great, there are opportunities for rapid **promotion** and jobs are available throughout the **UK and abroad**.

In the future, the sector will expand as new building projects get under way with major public sector, commercial and housing developments.

Demand is increasing for more sustainable and energy efficient buildings and services to combat **climate change**, and building services engineers are leading the way. **You** can make a difference by choosing a career in building services.

