

# Exploring Careers Through Technical Routes

## Fire Service



### The Industry

Firefighters respond to emergency situations protecting people, the environment and property from all types of accidents and emergencies. They also work closely with the local community to increase levels of fire safety awareness to help prevent fires and accidents happening in the future.

There are two types of firefighter. Wholtime firefighters work for the fire service full time and usually in urban areas. Retained firefighters are on-call responders who usually live/work within a mile of the fire station and respond to pagers when an emergency call is received (rural areas). A fireman works unsocial hours and can work up to 42 hours a week in a shift pattern. This could mean working two day shifts, two night shifts and then having four days off.

Employers include the civil airport and port fire services, forest industry and industrial fire services protecting private companies in e.g. chemical, pharmaceutical, nuclear or oil.

Fire and Rescue Recruitment <http://www.fireservice.co.uk/recruitment/>  
Prospects <https://www.prospects.ac.uk/job-profiles/firefighter>  
Success at School <https://successatschool.org>

### Skills and Requirements

You must to be aged 18 or over to become a firefighter and go through the standard national selection process, the National Firefighter Selection and Personal Qualities and Attributes test to check your suitability.

You also need to:

- Be physically fit enough to carry heavy equipment and breathing apparatus and to move debris or carry victims
- Be clean shaven to wear breathing apparatus
- Have the ability to clearly communicate conditions at an emergency scene
- Have courage e.g. to enter a burning building
- Be able to make quick and smart decisions in an emergency to potentially save lives
- Be able to stay calm and professional under pressure with a reassuring manner even when dealing with people who are badly injured and/or distressed
- Have the physical stamina to stay at disaster scenes for long periods of time to rescue and treat victims
- Have clear vision in both eyes and good hearing
- Be able to operate a range of tools and equipment.

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## Working and Learning in the Fire Service



### Job Roles & Progression

You can observe in a fire station or attend an open day. You need to keep fit and learn about both the role and the fire & rescue service in general to pass the recruitment tests.

#### Study Programme

Levels 2 and 3

Uniformed Public Services.



#### Further study

BSc (Hons)

Fire and Leadership Studies.

Fire and Rescue.

Fire Service College

Institution of Fire Engineers (IFE) professional qualifications.

Heavy Goods Vehicle (HGV)

licence for driving fire engines.



#### Apprenticeships

Emergency Fire Service Operations.

Level 2

Firefighter and Community Safety.



#### Career roles

Manager: Crew, Watch or Station. Specialise in a particular area of the fire and rescue service.

### Calculation including problem solving

#### Tasks

1. Calculate the time left in a fire according to the air in your tank.
2. Using data from previous fire reports prepare an informative talk on the dangers of a rubbish fire.
3. Calculate the fire flow formula (gallons per minute) to determine the % amount of water required to extinguish a fire.
4. Estimate the angle and steepness of a slope at a fire scene to determine the potential effects of fire spread.
5. Use a graph to show the number of kitchen fires over a 6 month period.

#### Links to GCSE Maths

1. **Number** (whole number - addition, subtraction, multiplication, division).
2. **Statistics** (collecting data - data collection sheets, sorting data; representing data - frequency diagrams, bar charts).
3. **Number** (whole number - multiplication). **Ratio, proportion and rates of change** (percentages - finding a percentage).
4. **Geometry and measure** (angles - types of angles; Pythagoras' Theorem).
5. **Number** (whole numbers - addition). **Statistics** (representing data - frequency diagrams, scatter graphs).

### Communication, all forms

#### Tasks

1. Comfort an injured person who is being cut out of their car after a road traffic accident.
2. Brief your team on the way to a fire according to the information you have been given.
3. Write an information leaflet to distribute to houses in an area after a series of kitchen fires.
4. Study a manual on the different sizes of hoses to instruct other colleagues on which one to use when and how.
5. Give a presentation on the dangers of a rubbish fire at a community event.

#### Links to GCSE English Language

1. **Spoken language** (speaking; personal presence; tone; voice).
2. **Spoken language** (speaking and listening; discussion skills).
3. **Writing** (context, audience and purpose; writing non-fiction - a leaflet; planning - a structure; organising information and ideas; literary techniques - informative language).
4. **Analysing non-fiction** (non-fiction text types - manual; context - time, publication).
5. **Spoken language** (speaking - audience and purpose); voice - presentation).