

Exploring Careers Through Technical Routes

Construction



The Industry

The UK construction industry is made up of a number of diverse projects. These include simple home repairs, extensions or office developments through to large constructions such as a national sports stadium, a new hospital or Crossrail.

There are many jobs both in the UK and overseas in the construction industry to choose from. These vary from working in an office, on a construction site or in a product workshop.

Some examples include: using machinery such as a tunnel boring machine or a crane; in a factory using machinery guided by computers; a service installer such as a plumber, electrician, or heating and ventilation engineer; building technician; CAD operator producing drawings; building control surveyor; demolition; highways maintenance; steeple jack; tunnel operative; site inspector; field technician; project manager.

Agency Central www.agencycentral.co.uk
CITB www.citb.co.uk/careers-in-construction

Skills and Requirements

You should like building, designing or making things to work in construction. You will also get on well with people and like working outdoors for some of the time. Essential skills and requirements include:

- Enthusiasm and commitment
- Experience using computer applications or technical tools
- Ability to read documents and interpret diagrams
- Independent working to plan and organise daily tasks
- Ability to work with numbers and perform calculations
- Good verbal communication
- Problem solving skills
- Evaluative skills to make decisions
- Working across multi disciplinary teams to meet project deadlines
- Knowledge of regulatory requirements and health and safety
- Commercial awareness.

Many trades require a CSCS card. To get a labourer's card you need to have passed a Health and Safety course in Safety in a Construction Environment.

Exploring Careers Through Technical Routes

Working and Learning in Construction



Job Roles & Progression

Property and construction practices offer work experience for opportunities to build skills while studying
e.g. as a construction trainee, a bricklayer or general labourer.

Study Programme

Levels 2 & 3

Construction, Multi Trades, Bricklaying etc.



Further study

BSc (Hons)

Construction Management (and with Environment, Engineering, or Project Management).
Quantity Surveying.
Commercial Management.

FdSc

Building Technology
Construction.
Architectural Technology.



Apprenticeships

Intermediate and Advanced Construction Industries (depending on your specialism).
Higher
Sustainable Built Environment.



Career roles

Quantity Surveyors.
Site Managers.
Technical Engineer.
Architect.
Become self-employed and run your own businesses.

Calculation including problem solving

Tasks

1. Build a wall mixing relevant materials in the correct proportions according to the specifications.
2. Prepare a customer quotation by calculating the costs of labour, materials and VAT.
3. Accurately calculate and order materials required for hard landscaping a garden from drawings.
4. Plan a building project taking into account profit, loss and overheads.
5. Carry out a risk assessment for taking down a disused building.

Links to GCSE Maths

1. **Ratio, proportion and rates of change** (direct and inverse proportion - calculating amounts using proportions).
2. **Number** (addition, multiplication; decimals - adding and multiplying decimals).
Ratio, proportion and rates of change (percentages - finding a percentage).
3. **Geometry and measure** (2-dimensional shapes, areas).
Number (addition, multiplication).
4. **Number** (financial mathematics - profit and loss).
5. **Probability** (probability - finding probability).

Communication, all forms

Tasks

1. Listen to instructions from the site manager, and respond effectively to questions and carrying out of instructions.
2. Plan a total house renovation project, and decide which trade will do what task and in which order.
3. Read and respond to a customer complaint from a hotel where a floor that you have recently laid is warping.
4. Complete a quotation for a client who is wanting a new kitchen installed.
5. Read reports about accidents at work from a variety of sources to develop your own staff guidance booklet.

Links to GCSE English Language

1. **Spoken language** (speaking and listening – audience and purpose, discussion skills).
2. **Writing** (writing non-fiction - purpose; planning – mind map, table).
3. **Writing** (writing non-fiction – a letter).
Spelling, punctuation and grammar (common spelling errors, punctuation - full stops).
4. **Writing** (writing non-fiction – quotation; organising information and ideas - paragraphs; literary techniques - informative language).
5. **Analysing non-fiction** (context - examples of context; purpose and audience - purpose).
Comparing texts (comparing by purpose).