

National Apprenticeship - Occupational Profile

Craft Occupation

Plumbing

Industry Served

Construction/Engineering

Profile of Craft

Plumbing work involves the installation and maintenance of plumbing, heating and mechanical services on domestic, commercial and industrial projects, including houses, schools, hospitals, office blocks, apartment blocks, factories as well as pharmaceutical, chemical, food/drink processing facilities. These installations comprise of a wide range of services including pipefitting, welding, soldering on central heating systems, air handling systems, solar heating, hot and cold water supplies, sanitary appliances and sanitation systems, gas pipelines and appliances, compressed air, fire control, steam, chilled water systems and process pipework.

At the end of the apprenticeship the Craftsperson will be able to demonstrate competence in the following:

Core Skills

- Use of plumbing tools and materials
- Pipe fitting
- Pipe bending
- Inspection and testing of pipework
- Fault diagnosis
- Design/installation of central heating systems including:
 - solid fuel
 - gas
 - oil fired boilers
 - flues and ventilation
 - fuel storage and distribution
- Design/installation of plumbing systems including:
 - mains water supply
 - water treatment
 - domestic and multi-storey hot and cold water supply
 - storage tanks, cylinders, calorifiers
 - sanitary appliances and discharge pipework and systems
- Installation of:
 - gas appliances
 - fire fighting systems

Specialist Skills

- Installation of:
 - underfloor heating
 - solar heating
 - steam heating
 - compressed air systems
 - vacuum systems
 - biomass heating
 - ground source heat pump heating
 - greywater systems
- Commissioning and servicing:
 - boosted cold water systems
 - unvented hot water systems
 - boilers
 - burners
 - gas appliances
 - pumps
- Knowledge of:
 - heating controls
 - air handling units and air conditioning systems
 - industrial and process gases and liquids