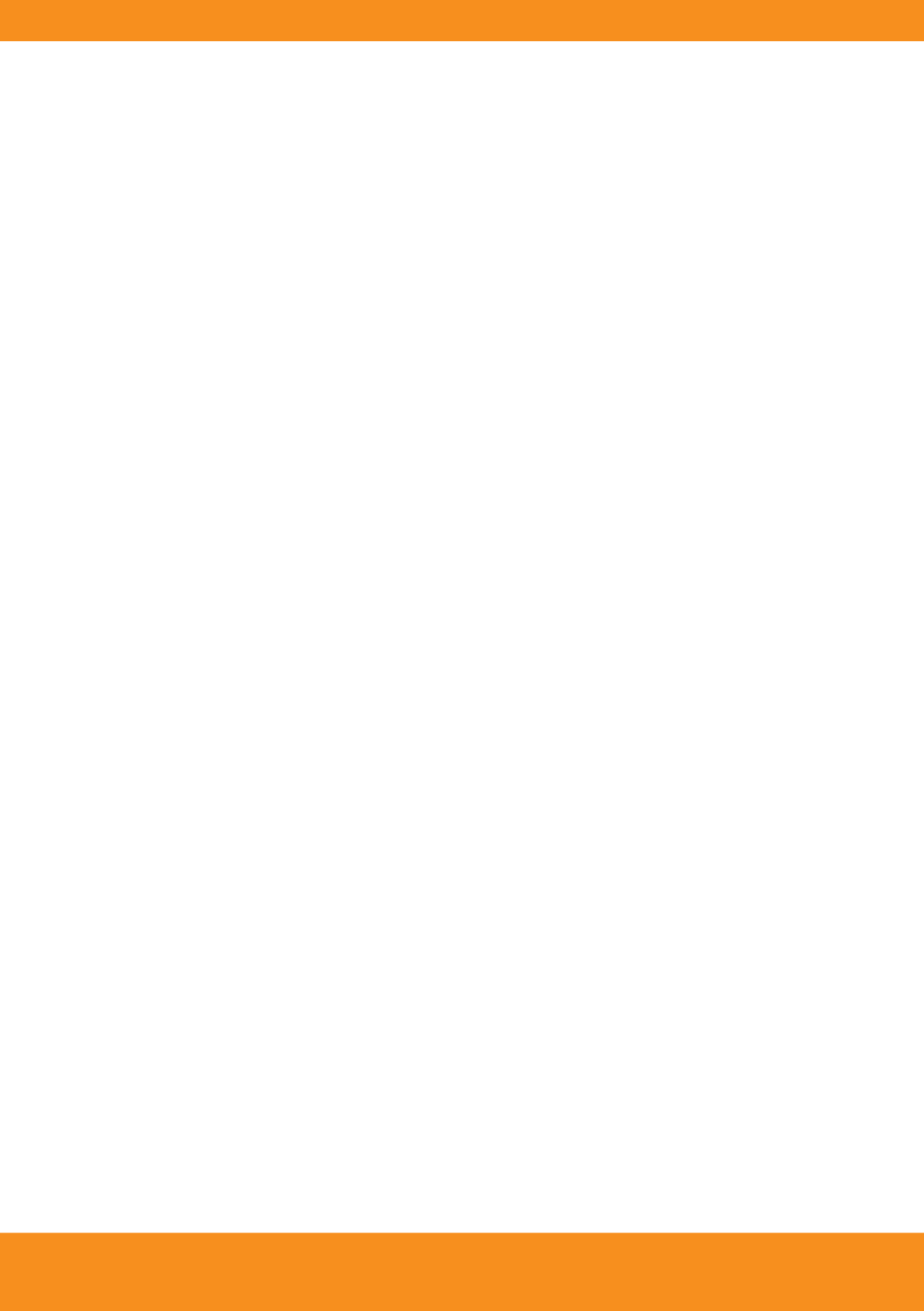


GETTING STARTED ON YOUR

# plumbing and gasfitting career





## CONTENTS

A great career .....	4
Before you start .....	5
Career pathway .....	7
People who can help you .....	8
The three components of an apprenticeship .....	11
Content of your four year journey .....	14
Organising your study programme.....	17
Keeping track of your progress.....	17
Key organisations and how they fit together.....	18



# A great CAREER



**Plumbing and gasfitting are careers that offer great rewards if you are willing to put in the time and effort to train and become qualified and licensed. By law only people who are licensed can do plumbing and gasfitting work, so you will be set up for life.**

Many apprentice plumbers and gasfitters continue to work for someone else when they have completed their apprenticeship, but many set up business on their own at some stage. There are plenty who make lots of money, as well as enjoying a great lifestyle and variety of work.

**“I love my job. I’m never bored, I have a great lifestyle, and I make a good living”**

*– Certifying plumber, gasfitter and drainlayer*

The skills you gain when you become a plumber and gasfitter are also highly sought after in other sectors. Many plumbers and gasfitters are employed in other related or unrelated jobs. Employers can clearly see that a licensed plumber and gasfitter is smart, hard-working and practical, attributes that are of great value in any job.

Once you are fully licensed in New Zealand you can also get a licence to work as a plumber and gasfitter in Australia – and it will also be more likely you will be able to get licensed in other countries overseas.

Whatever your plans are for the future, a plumbing and gasfitting qualification will certainly be a great start to a great career.

Plumbing and gasfitting apprenticeships are almost always done together. This is because much of the learning applies to both. You can also do a drainlaying apprenticeship before or after you do plumbing and gasfitting. For more information about drainlaying apprenticeships go to the Plumbing, Gasfitting, Drainlaying and Roofing Industry Training Organisation (ITO) website ([www.ito.co.nz](http://www.ito.co.nz)), email us at [info@ito.co.nz](mailto:info@ito.co.nz) or call us on 0800 277 736.

## BEFORE YOU START

There are a number of things you can do to help you to decide if a career in plumbing and gasfitting is right for you. Many schools run construction courses which give an introduction to a number of different trades in the building sector including plumbing and gasfitting. BConstructive is a good example with programmes and qualifications available at school. There is a Gateway programme for plumbing gasfitting and drainlaying as well. This programme gives you time with an employer and you gain both theory and practical knowledge that will count towards an apprenticeship. Career advisors, family and friends can provide information, advice and encouragement. We can also provide useful information so please don't hesitate to contact us.

Some polytechnics and private training providers offer pre-apprenticeship courses (known as pre-trade) which, although not part of an apprenticeship, can give you an opportunity to get a more in depth look at what plumbing and gasfitting are all about.

Once you have decided you want a career in plumbing and gasfitting, the key thing you need to do is convince someone to employ you as an apprentice. Employers are interested in your attitude and willingness to work hard, so think about how you can convince a potential employer that you have got what it takes to do a great job for them.

**“The most important things I look for when considering someone for an apprenticeship are attitude, presentation and communication skills”** – *Certifying plumber, gasfitter and drainlayer*

Plumbing and gasfitting is complex work requiring a lot of knowledge and skill. This doesn't mean you have to have done well at school to become an apprentice,

but you will need reasonably good reading and maths skills. Assistance is available to help you to develop these skills if you don't already have them.

Once you have convinced someone to take you on as an apprentice, there is some simple paperwork to complete to get you formally enrolled in your apprenticeship. Government pays part of the cost of your training, the remainder must be paid by you (or your employer). As an apprentice you also need to have special apprentice licences to do plumbing and gasfitting work (known as limited certificates). These free limited certificates are issued by the Plumbers, Gasfitters and Drainlayers Board (PGD Board). You have to renew your limited certificates each year while you are doing your apprenticeship.

Your apprenticeship agreement is not an employment contract. You need to make sure you have a separate employment contract as you do with any job. Once you complete your apprenticeship, you will probably need to agree a new employment contract with your boss.



## CAREER PATHWAY

Your apprenticeship should take four years to complete, provided you regularly work through your distance learning and attend block courses (practical courses run at a polytechnic). It's really important that you don't fall behind in your study.

The Government funding for your apprenticeship is only available for four years so if you take longer than this you will have to pay the extra yourself.

### Deciding on your career:

Some ways of finding out if plumbing and gasfitting is for you:

- BConstructive course
- gateway programme
- careers advisor
- family & friends
- pre-trade course
- talk to the ITO
- work experience

### Your apprenticeship:

- an agreement between you, your boss and the ITO
- 4 years for plumbing and gasfitting (2 years for drainlaying)
- you have to get limited certificates each year from the PGD Board
- you have to be supervised
- National Certificates awarded on completion

### Getting registered and licensed:

- you have to pass PGD Board exams after you complete your apprenticeship
- you have to pay the one off registration fee
- you have to pay the annual licence fee
- you still have to be supervised
- you have to do some ongoing learning each year

### Getting your certifying licencer:

- you have to be licensed for 2 years minimum
- you have to pass PGD Board exams
- you have to pay the annual licence fee
- you have to do some on-going learning each year
- you can supervise apprentices and other workers

Once you have successfully completed all the requirements of your apprenticeship you are awarded your National Certificates in Plumbing and Gasfitting. You then have to sit exams to prove that you are ready to become a licensed plumber and gasfitter. Once you have passed the exams which are set by the PGD Board, you can then get your licence by applying to the PGD Board (and paying a one-off registration fee and the annual licence fee).

When you first become a licensed plumber and gasfitter you still have to be supervised by a certifying plumber and gasfitter. This means that your supervisor has overall responsibility to make sure your work is done properly and is safe, but doesn't mean that they have to visit every job you do.

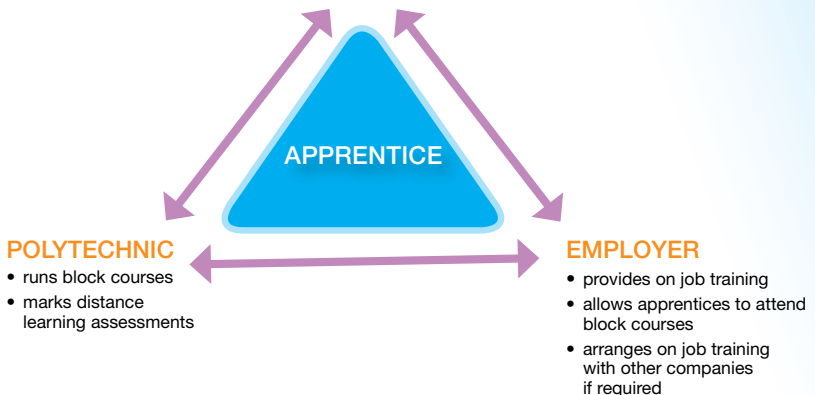
After holding a licence for two years you can sit more exams to qualify you for a certifying licence. Once you have passed these exams you get your certifying licence by paying the annual fee to the PGD Board. As a certifying plumber and gasfitter you no longer need any supervision. In fact you are now able to supervise others and will hopefully at some stage take on an apprentice yourself.

To continue to hold your annual licence you have to complete a small amount of study each year to make sure your skills and knowledge are kept up to date. There are a wide range of courses and seminars you can attend to qualify you to renew your licence.

## PEOPLE WHO CAN HELP YOU

### PLUMBING, GASFITTING, DRAINLAYING AND ROOFING INDUSTRY TRAINING ORGANISATION (ITO)

- develops the qualifications
- pays the polytechnics to deliver training
- provides support to help apprentices get through



## Your Boss

Your boss is the person who you will learn most from. Your apprenticeship is mainly about learning on the job. Most plumbers and gasfitters are very good at training, even though many of them don't realise it. Make sure you get the most from your boss by asking questions when you are not sure about how to do something. Always try to understand why something is done a particular way, rather than just doing it because you have been told to.

Your boss will also give you time off to attend block courses. You need to make sure you talk to your boss about your block courses as soon as you know when they are on. This will give them plenty of time to make arrangements to cover while you are away.

Developing a great working relationship with your boss is really important for you to get the most from their wealth of knowledge. It is also very important for them to get the most from you. Good working relationships don't happen by chance. If you work at it, you will get the rewards.

## The Industry Training Organisation (ITO)

The Plumbing, Gasfitting, Drainlaying and Roofing Industry Training Organisation (ITO) gets government money to pay for part of your training. We then pay a polytechnic (or a private training provider) to run block courses that you must attend and to mark your written assessments.

The ITO will stay in touch with you during your apprenticeship to make sure you are going OK. You can contact us at any time if you have any questions or problems regarding any aspect of your apprenticeship.

If you are less than 22 years old you may be eligible for extra assistance under the Modern Apprenticeship Scheme. The ITO can advise you and your boss about this scheme.

# Our Four Regional Training Advisors and Their Coverage



**1**

**Peter Gembitsky**

Auckland and  
Northland  
021 318 435



**2**

**Gillian Abbott**

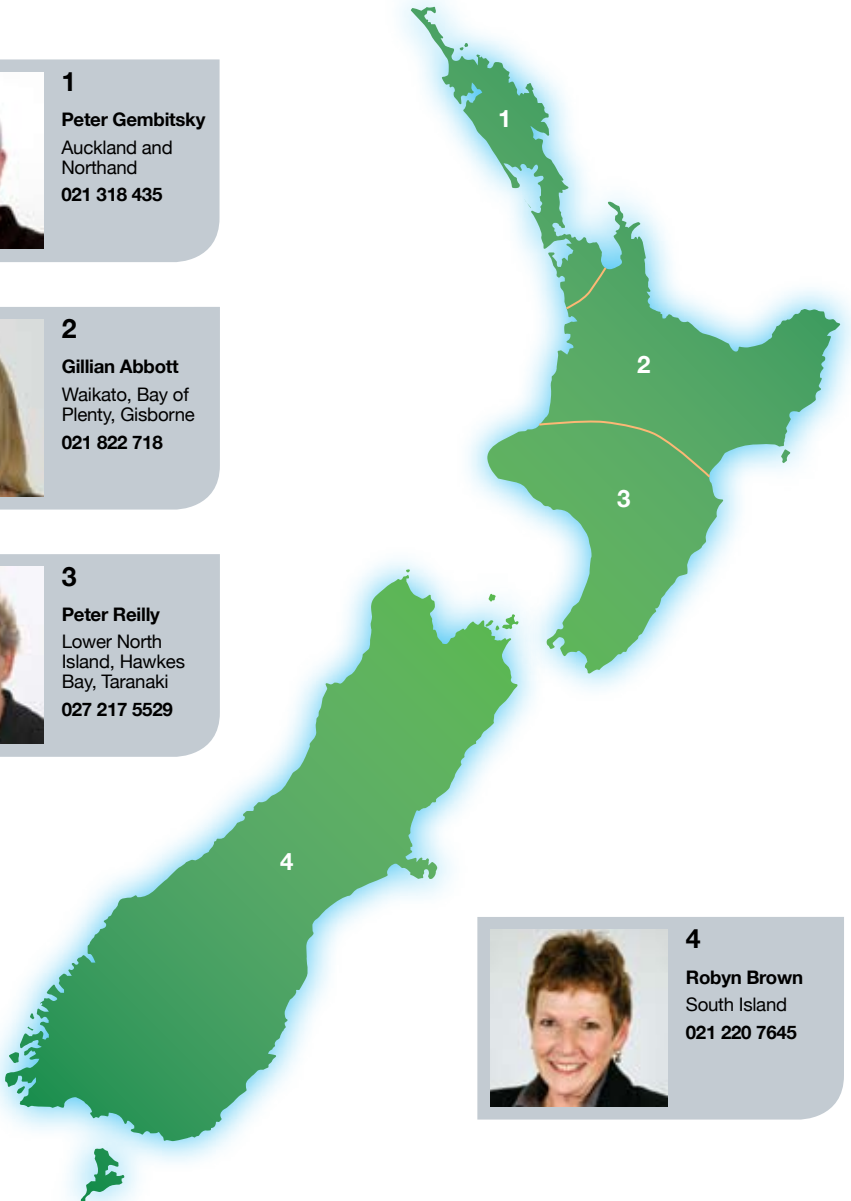
Waikato, Bay of  
Plenty, Gisborne  
021 822 718



**3**

**Peter Reilly**

Lower North  
Island, Hawkes  
Bay, Taranaki  
027 217 5529



**4**

**Robyn Brown**

South Island  
021 220 7645

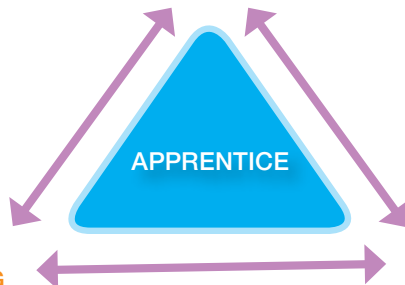
## The polytechnic

Your block courses and marking of your written assessments is looked after by a polytechnic (or a private training provider). There are several of them around the country so you can be enrolled at one that is convenient for you. If you have any questions or problems relating to the polytechnic training programme you can contact your polytechnic tutor, or the ITO, at any time.

## THE THREE COMPONENTS OF AN APPRENTICESHIP

### ON THE JOB LEARNING

- your boss showing you how to do things and explaining why they are done that way



### DISTANCE LEARNING

- study you must do in your own time
- gives you an understanding of the theory behind the practical work you do on the job
- involves working through study guides and reference books

### BLOCK COURSES

- run at the polytechnic – hands on practical work and assessments
- designed to test the knowledge and skills that you should have gained by completing your distance learning and on-job learning
- Includes written assessment of distance learning
- may cover types of work that you might not learn on the job

## On-Job training

Most of your learning will happen on the job. Your boss will show you how to do things and explain to you why they are done that way. If you do something

the wrong way your boss should explain the right way and why the way you have done it is wrong. The ITO will provide you with an on-site record book where you will need to record details of jobs you do that demonstrate you have gained specific skills. You will need to get your boss to confirm that the information you have recorded is accurate. You will also have to take this record book with you to block courses where they will check your knowledge and skills relating to the jobs recorded in your workbook.

**“The lads I get the best work from are the ones that make an effort to ask questions and understand why things are done a particular way”**

*– Certifying plumber, gasfitter and drainlayer*

If you are working for someone who specialises in certain types of jobs they might not be able to give you all the practical experience you need. They may need to arrange for you to spend some time with another company so you can get the broad range of practical experience necessary for you to complete your apprenticeship. The polytechnic may also be able to provide some specific hands-on training to fill any gaps.

One option to ensure you get a broad range of experience is to be employed by an organisation that then subcontracts you to different plumbing and gasfitting businesses. Apprenticeship Training Trust and Masterlink are two companies that operate in this way. Their contact details are on page 18 of this booklet.

## **Distance Learning**

Distance learning is a term used to describe the part of your training that you have to do in your own time. Distance learning involves working through study guides to prepare you for assessments that are done at block courses. Your distance learning gives you an understanding of the theory behind the practical work you do on the job. It teaches you about why certain skills are important and why specific tasks are done in a certain way. It provides knowledge you might not need until much later in your career, but when you need it you will be pleased you learned it.



At the end of each block course you will be given study guides to work through prior to the next block course. It is really important that you keep up to date with your distance learning. If you fall behind you run the risk of not completing your apprenticeship within the four years and having to pay extra fees.

**“The apprentices that do some study every week always do much better than those who leave their study to the last moment”**

*– ITO regional training advisor*

The amount of time it takes to do this distance learning obviously depends on the individual, but if you do a few hours every week you should be fine – and you will soon work out if you need to do more to keep on track.

If you are worried that your reading and maths skills might hold you back on your distance learning contact us at the ITO. We can arrange for you to get some help.

## **Block Courses**

Block courses are run at the polytechnic and involve hands-on practical work. They can sometimes also cover types of work that you might not get the opportunity to learn about on the job. They are also designed to test the knowledge and skills that you should have gained by completing your study guides.

All polytechnics regularly run an initial introductory one week block course to get you started and answer any questions you may have about your apprenticeship. You should be able to attend this first block course soon after enrolling in your apprenticeship. Following the introductory block course there is a one week block courses every 17 weeks throughout your apprenticeship. At each block course you will complete written assessments covering the study guides you received at the previous block course.

## **CONTENT OF YOUR FOUR YEAR JOURNEY**

You will probably be familiar with the unit standard system from your study at school. Unit standards are just small chunks of a bigger subject (in this case plumbing and gasfitting). You are awarded a National Certificate once you complete the required unit standards.

The National Certificates in Plumbing and Gasfitting are broken down into 45 unit standards. Some of these unit standards are achieved by completing your distance learning and practical assessments at block courses, and a small number are achieved by attending other short courses. You may even have achieved some of these unit standards at school.

The 45 unit standards that make up the National Certificates are as follows:

## Units achieved by attending a course

- 6400** Manage first aid in emergency situations
  - 6401** Provide first aid
  - 6402** Provide resuscitation level 2
  - 15757** Employ fall arrest systems on building and construction sites
  - 18426** Demonstrate knowledge of hazards associated with confined space
- (The ITO can give you information about where and when these courses are held)

## Units achieved by completing distance learning written assessments at block courses

- 2138** Demonstrate knowledge of asbestos and safety procedures
- 2136** Identify and describe hand tools and testing equipment for plumbing
- 2137** Identify and describe trade equipment and power tools for plumbing
- 2114** Identify and describe hand tools and testing equipment for gasfitting
- 2115** Identify and describe trade equipment and power tools for gasfitting
- 21883** Demonstrate knowledge of hazards and precautions for working with gas in plumbing, gasfitting or drainlaying
- 21897** Demonstrate knowledge of the gasfitting of LPG cylinder supply systems for gas installations
- 21900** Demonstrate knowledge of safety requirements in gasfitting
- 21881** Describe ethical and legal considerations for plumbing, gasfitting or drainlaying services
- 21886** Demonstrate knowledge of specialist sanitary appliances and fixtures
- 2159** Demonstrate knowledge of the installation and maintenance of compressed air and vacuum services
- 21896** Demonstrate knowledge of the installation of Type 3 gas appliances and equipment

## Unit standards achieved through practical assessment on block courses

- 57** Provide customer service in given situations
- 3490** Write an incident report
- 4249** Demonstrate care and timeliness as an employee
- 21209** Demonstrate knowledge of and carry out health and safety procedures for a building construction site
- 2116** Install, commission and maintain consumer gas pipework

- 1099 Excavate and trench for plumbing, gasfitting or drainlaying
- 1122 Establish line, level and gradient for plumbing or drainlaying
- 21890 Install, commission and maintain Type 1 gas appliances and equipment
- 21884 Install and maintain roofing, rainwater handling, and cladding systems and flashings
- 2143 Install secure and maintain water supply pipework in buildings
- 2157 Install and maintain air heating and ventilation ducting and equipment
- 23849 Install and maintain water mains and water supply systems and reticulation
- 23850 Install, commission and maintain open vented and push through hot water supply systems
- 23851 Install, commission and maintain valve-vented hot water supply systems
- 23845 Demonstrate metal welding for plumbing or gasfitting
- 21893 Install and commission Type 2 gas appliances and equipment
- 2117 Install, test and maintain water supply backflow prevention devices
- 2144 Install, secure and maintain foulwater systems
- 2149 Select, install and maintain pumps and controls for water supply and disposal systems in plumbing
- 2153 Install and maintain solid fuel space heaters and flues
- 21899 Identify, test and maintain control and safety devices in gas appliances
- 21887 Draw patterns and construct sheet metal products for plumbing or gasfitting requirements
- 21879 Determine job requirements and describe job costing factors for plumbing, gasfitting or drainlaying
- 21882 Interpret drawings and specifications and draw drawings for plumbing, gasfitting, or drainlaying
- 21885 Install and maintain sanitary appliances and fixtures
- 24305 Install solar water heating systems
- 2132 Install, commission and maintain gas metering equipment and interpret and record gas meter data
- 21898 Identify, install, test, commission and maintain gas control devices

## ORGANISING YOUR STUDY PROGRAMME

Your boss, ITO staff, your friends and family can all help you to get through your apprenticeship, but the most important thing that will get you through is your own commitment and being well organised. Having a written study plan that you follow and regularly review is probably the most important thing you can do to keep you on track. A study plan template is available from our website and we can even help you to develop the plan if you are not sure how to do it.

## KEEPING TRACK OF YOUR PROGRESS

Both you and your boss can keep track of your progress through your apprenticeship by logging on to the ITO website. This online system is easy to use and gives you a simple way of regularly checking that you are on track.

If you are unsure about whether you are up to date with your study contact us at the ITO. We can tell you if you are, and also help you to catch up if you have fallen behind.



# KEY ORGANISATIONS AND HOW THEY FIT TOGETHER

