

National 4 Practical Metalworking (Course Code: C761 74) SCQF Level 4 (24 Credit Points)

City & Guilds award in Cycle Maintenance.

Why study Practical Metalworking?

If you love bikes or fancy learning how to work with metal, this course is perfect for you!

You'll learn how to use all sorts of tools and equipment safely, as well as work with different materials and techniques. You'll also get to read diagrams, so you can plan and complete your own projects in metal. This isn't just about fixing bikes—it's about learning a variety of skills that can be used in all sorts of jobs later on.

For the cycle maintenance part, you'll learn how to do things like check a bike for faults, fix common problems, and keep it in top shape with regular maintenance. You'll also have the chance to learn how to do more complex repairs that aren't done as often.

By the end of the course, you'll have a bunch of new skills that you can use in many areas of life and work. Whether you're looking to fix bikes, work with metal, or just develop practical skills, this course will help you build a solid foundation for the future.

What will I study?

National 4 Practical Metalworking (S3) where you'll learn loads of skills for working with metal. You'll get to grips with using different tools and materials safely, and you'll practise skills that can also be useful in other areas, like woodworking. It's not just about making things on your own—you'll also work with others in a workshop, so you'll get to improve your teamwork skills. In this course, you'll learn about working safely in a workshop, and how metal is made and recycled. You'll also discover how all of this affects the environment.

The course is split into three main units, plus an added value unit:

Practical Metalworking: Bench Skills

You will:

- get hands-on with different metalworking hand tools, like doing basic sheet metal work and simple measuring.
- learn how to read and understand drawings and diagrams.

Practical Metalworking: Machine Processes

You will:

- get better at measuring and marking out, and learn how to use different metalwork machines
- work with all sorts of metals and learn the processes that go along with them.

Practical Metalworking: Fabrication and Thermal Joining

You will:

- learn how to shape, join, and finish metal components
- learn thermal joining techniques, which is a cool way of working with heat to join metal parts together.

Added Value Unit: Making a Finished Product from Metal

You will:

- create your own metal product and apply a finish to make it look great.

Cycle Maintenance (S4) where you'll work in the specialised bike workshop at Graeme High School.

You will:

- get hands-on experience learning how to fix and maintain bikes
- start with basic maintenance and work your way up to more advanced repairs and servicing
- have opportunities to work with the community, helping out with different projects and programmes, which will give you even more skills and experience.
- learn about how bikes are made, the materials used, and how this affects the environment.

By the end of these courses, you'll have gained a wide range of skills that'll help you in future jobs, whether you're fixing bikes, working with metal, or even considering a career in engineering or design!

How will I be assessed?

In S3, when you study N4 Practical Metalworking, your teacher will assess your work regularly to make sure you're getting the hang of things. You'll be assessed on practical tasks, like using machinery or checking tools, as well as written or spoken tests where you'll identify tools. To pass and get your qualification, you'll need to complete and pass both units and the added value unit.

In S4, when you're working on Cycle Maintenance, you'll be assessed based on how well you progress throughout the course. Since the focus is on learning by doing, there's no grading system—it's simply pass or fail. Your teacher will keep track of how you're getting on and give you feedback as you work through the course.