What skills are useful in STEM?

Some skills are especially useful for studying and working in STEM. In addition, these skills are transferable, meaning that they are useful not just in STEM, but any area of work or life.

When you read the list below, you'll probably find that you're developing some of these skills without even realising it! Think about what you do in your spare time, such as part time work, sport, cookery, environmental or conservation work and even playing computer games.

All of these activities can help you to enhance important skills. Let's take a look at 10 important employability skills that are useful in STEM, what they mean and how you can develop them.

Numeracy

Use numbers and data to work out, understand and demonstrate meaningful information and results.

How could you develop these skills?

- You might have a part time job where you have the opportunity to count and handle cash.
- Take part in school or college projects that include using maths and numeracy.
- Use different types of graphs, tables and diagrams to represent data.

Digital Skills

Have a good knowledge of and the ability to use different forms of information technology effectively.

How could you develop these skills?

- Join your school coding club.
- Use software, such as Microsoft Word, Excel and PowerPoint to complete your lessons, course work or projects.
- Pick your favourite app and find out how it works.
- Research a topic using the internet.

Problem solving and analytical skills

Identify and understand a problem, collect and examine information and use your knowledge and experience to develop a solution or conclusion.

How could you develop these skills?

- Design and make working objects in your Design and Technology or Design and Manufacture class.
- Look at results from maths problems or science experiments and draw conclusions.
- Get involved in STEM activities in or out of school or college.

Teamwork

Understand how to work well with other people in order to complete tasks.

How could you develop these skills?

- Work with other students on a project.
- Keep a note of how the team works together and resolves any differences.
- If you take part in team sport, think about what makes you work well together as a team.

Organisational skills

Plan your work, organise your time and meet deadlines.

How could you develop these skills?

- Help to organise an event or project, such as a STEM information day.
- Plan your homework diary to ensure that you get your work submitted on time.
- Make a revision timetable.

Negotiation skills

Reach agreement with other people on a topic or issue, which is fair and of benefit to both parties.

How could you develop these skills?

- Work with a team on a project and help to decide who is best for each task.
- Help someone with their maths work if they agree to help you with science in return.
- Offer to do some tasks around the house for money.

Informed decision-making

Consider a range of facts and different sources of information to come to a decision about something.

How could you develop these skills?

- Use a range of different online sources to research information when completing homework or projects.
- Get together with a group of friends and discuss your answers.
- List pros and cons for a decision outcome to help choose the most effective.

Communication and interpersonal skills

Convey thoughts, ideas and feelings clearly, verbally and in writing, as well as listening to and understanding others.

How could you develop these skills?

- Take part in a debate.
- Do a presentation or speak to an audience.
- Give instructions to others and ensure they are understood.

Adaptability

Learning from mistakes and identifying ways in which things can be improved, learning new things and working with feedback.

How could you develop these skills?

- Read or listen to feedback from teachers and tutors about your work and use this to improve it for the next time.
- Be open to learning new things.
- If you are stuck with something, know when to ask for help.

Initiative and self-motivation

Putting forward your own ideas, doing things without having to be told and completing tasks.

How could you develop these skills?

- Use a new idea that could help with your work, such as asking real companies for information for a business project instead of just researching online.
- Complete your work without being told to.
- Whether it's in or out of school, make that that you complete any work that you start.
- Searching and apply for a part time job.