

EXPLORE CAREERS

CAREERS IN STEM

August – September 2024

Why Choosing a
STEM Career
Could Light Up
Your Future!

DISCOVER EXCITING
STEM PATHWAYS

TAKE PART IN THE STEM
VS STEAM DEBATE

DISCOVER OUT OF THE
BOX STEM CAREERS

HEAR FROM INSPIRING
WOMEN IN STEM

FIND OUT IF STEM IS
RIGHT FOR YOU!

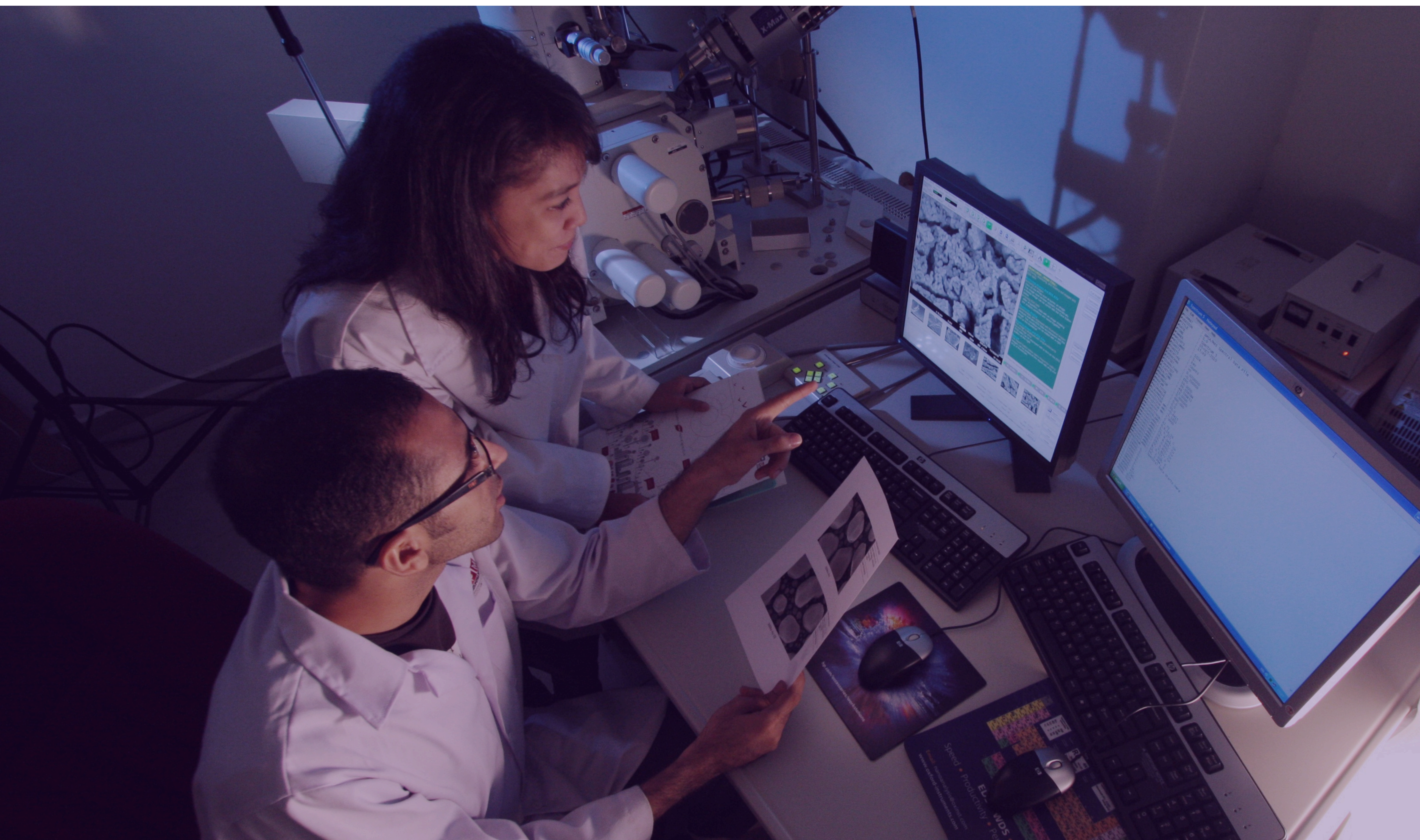


Let's Explore: STEM Careers

Hello there! Are you a self-proclaimed nature enthusiast? Or do you love finding out how the world works? If you answered yes, should you definitely keep reading!

A career in STEM is an exciting one, reaching across many different industries and pathways. Discover if STEM is the right career path for you, and meet some of our employers who offer STEM career opportunities!

ENJOY!



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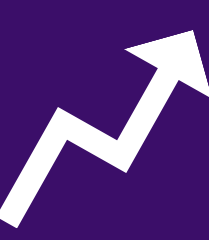
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EXPLORE CAREERS



We're not just a platform; we're architects of happy career futures!

Our partnerships with world-leading employers helps us open doors to exclusive opportunities, offering you glimpses into early career paths and expert guidance.

We're here to help co-create success stories & empower you to forge your future with every step!

STEM

EXPLAINED

STEM stands for Science, Technology, Engineering and Mathematics. The world is becoming increasingly digitised and technologically advanced, and the changemakers behind these shifts are the geniuses in STEM!

STEM Careers are even dubbed “tomorrow’s jobs” because of how necessary they’re becoming in our future-focused societies.

S SCIENCE

T TECHNOLOGY

E ENGINEERING

M MATHEMATICS

The term dates back to the 1990s by the National Science Foundation, an American organisation who wanted to promote the importance of science and engineering in education.



HOW TO GET STARTED: STEM PATHWAYS

STEM careers usually require a bachelor's degree at the least, and there are also many positions that require a Master's degree or PhD. However, if you love learning, this shouldn't put you off!

High School Subjects

- Biology
- Chemistry
- Earth sciences
- Maths
- Physics
- Astronomy
- Engineering
- Information technology
- Agriculture

VET / TAFE Courses

- Diploma of Laboratory, Information, Dental, or Engineering Technology,
- Diploma of Nursing, Agriculture, Conservation.
- Certificate IV in Information Technology, Cyber Security, or Plumbing & Services.
- Certificate III in Telecommunications, Engineering, or Process Manufacturing.
- Advanced Diploma of Engineering.

STEM



STEM stands for science, technology, engineering and mathematics.

The term STEM was coined in the early 2000s to help promote this important career pathway to future generations in the education setting.



THE DEBATE:

There is some debate about moving from STEM to STEAM:

Some argue that the addition of arts diminishes the importance of traditional STEM subjects. Others argue that arts doesn't mean *less* time is spent on science, technology, engineering and maths subjects, rather that arts is an important addition!

STEAM puts more emphasis on creativity and critical thinking. While skills like maths and science seem pretty vital for say, a future engineering career, employers still see the value in humanities-related knowledge too!



STEAM

STEAM stands for science, technology, engineering, **arts** and mathematics. The arts aspect encompasses visual arts, language, physical arts, music and more.

This stems (pun intended) from the idea that arts is an important component within science, technology, engineering and mathematics subjects.



STEAM CAREERS

It's no secret that the world is rapidly changing, and our future jobs and career pathways are changing too!

Even jobs that didn't exist ten years ago (like podcast producers and social media managers) are now in high demand. It's pretty clear that students need to be well-equipped for what the future of work holds - and STEAM education is the key!

Examples of exciting STEAM careers include:

- Animator
- Animator
- Architect
- Astrophysicist
- Biomedical Engineer
- Civil Engineer
- Fashion Designer
- Forensic Psychologist
- Graphic Designer
- Interior Designer
- Mechanical Engineer
- Medical Imaging
- Photographer
- Pilot
- Sound Engineer
- Website Developer

STEM

PATHWAYS

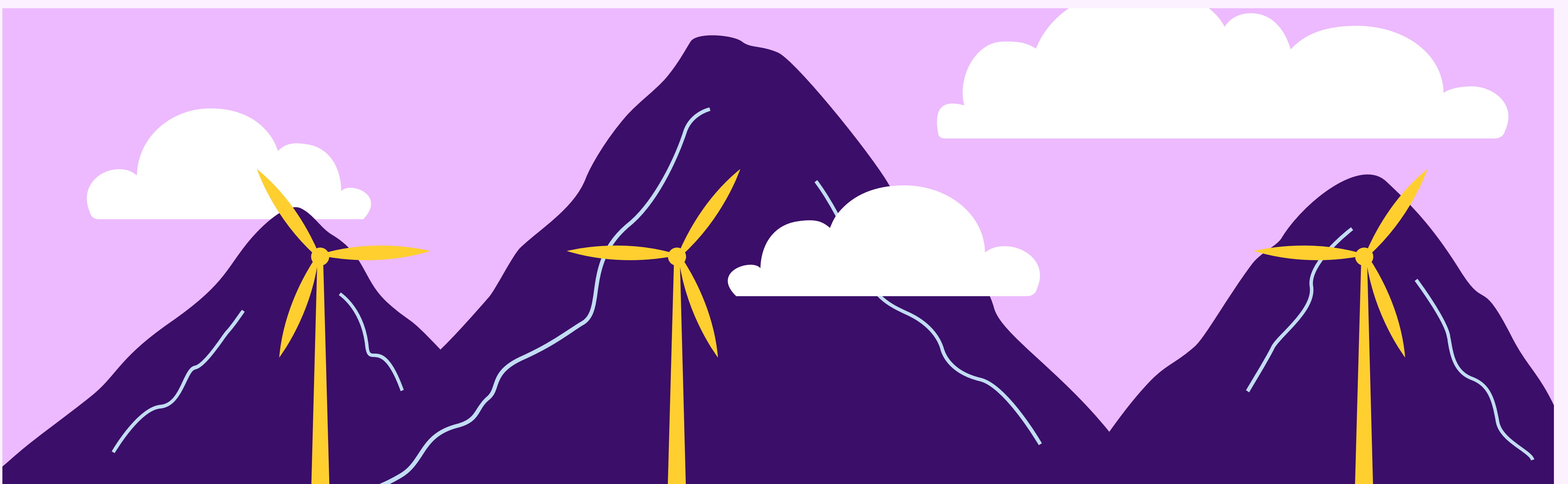
Science

Are you passionate about making sense of the world? Science careers don't just allow you to contribute to the world around you and be a part of exciting scientific advancements, but they also allow you to specialise in a variety of exciting fields.

People with science jobs conduct experiments and research to solve the world's problems and improve our knowledge. Science jobs can be in any scientific field, including biology, physics, psychology and chemistry.

Some popular science roles include:

- Research Scientist
- Government Scientist
- Academic Scientist
- Lab Scientist
- Expert Scientist
- Corporate Scientist
- Entrepreneur Scientist



Technology

People with technology jobs use modern innovations, including computers and robotics, to create innovative solutions.

Technology builds on engineering solutions, requiring practical skills to construct designs. Every time you use a smartphone, computer or digital software you can thank our technology experts!

Technology-specific careers include:

- Software Developer
- IT Manager
- Network Engineer
- App Developer
- Programmer
- Technician

Keep Exploring:

DATAKOM

Capgemini 



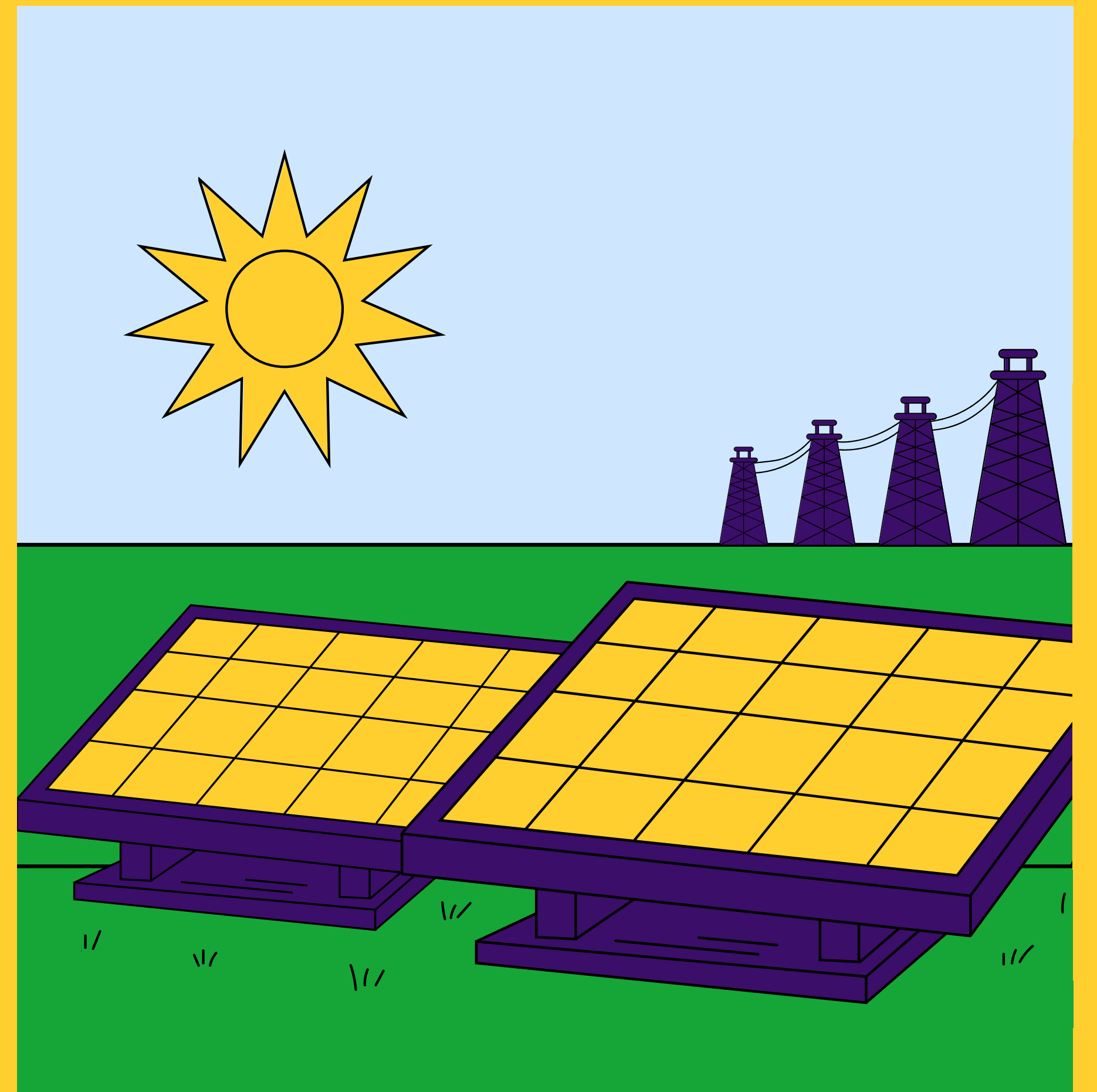
wisetech
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Peabody

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STEM

PATHWAYS

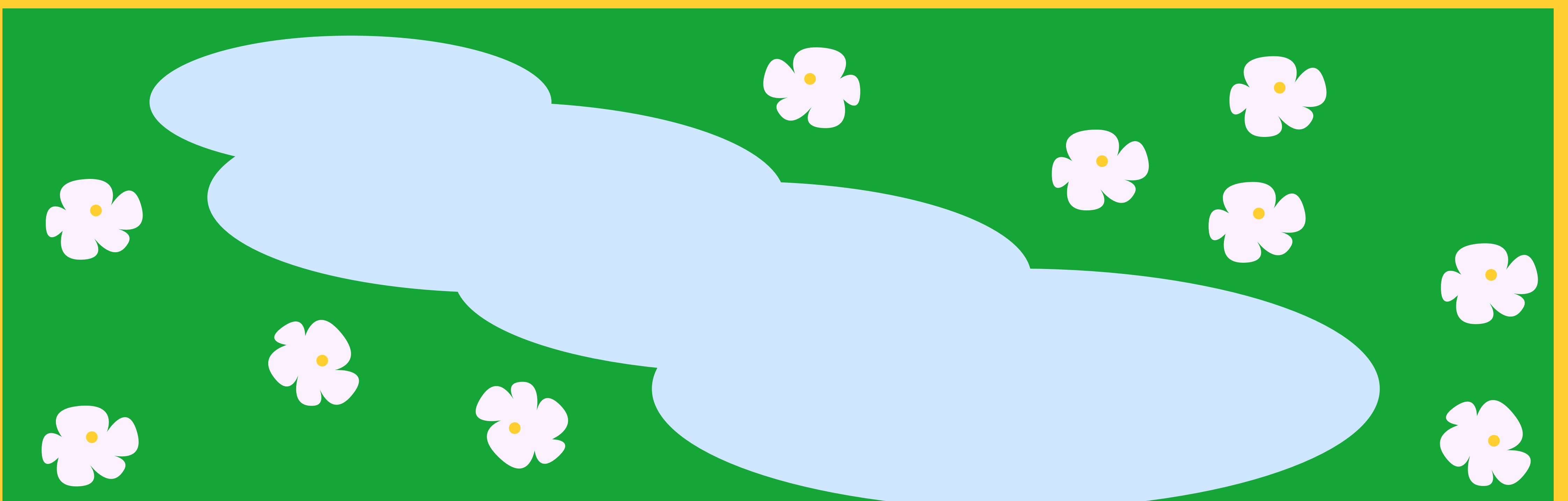


Engineering

In simple terms, engineering relates to maths and science-based designing, building, and testing processes. New buildings, technology, and power systems all exist thanks to engineers. The best part? By choosing a career in engineering, you can contribute to the future of our world too!

Some of the most common types of engineering jobs include:

- Computer Engineering
- Mechanical Engineering
- Civil Engineering
- Electrical Engineering
- Architectural Engineering



Mathematics

If you enjoy solving equations, a maths career could be calling!

Studying mathematics doesn't just help you ace your homework, it touches all aspects of our lives. In fact many finance, technology and science industries favour a mathematics degree.

Budding tradies, environmental scientists, engineers, retail marketers and designers will all need to touch on their maths skills throughout their careers.

Some common mathematics careers include:

- Economist
- Civil Engineer
- Accountant
- Maths Teacher
- Financial Analyst
- Algorithm Engineer

Keep Exploring:



JaybroGroup



OUT OF THE BOX STEM CAREERS

When you think of STEM, your first thought might be of a scientist or mathematician. BUT there are plenty of surprising career choices that fit under the STEM umbrella!

LESSER KNOWN STEM INDUSTRIES:

There are so many STEM jobs out there, spanning a wide range of different industries. We've put together some 'out of the box' stem careers to help inspire you!

1 [Defence](#)

2 Food
Science

3 [Government](#)

4 [Professional
Services](#)

5 [Agriculture](#)

BAE SYSTEMS

BAE SYSTEMS

Think the defence industry is reserved for people in the army? Think again! BAE Systems challenge stereotypes to inspire the next generation of engineers and innovators!

NESTLÉ

Nestlé are the largest food and beverage company in the world. But aside from creating much-loved products, Nestlé offer market-leading STEM roles from information technology to engineering and medical science.

DEPARTMENT OF ENVIRONMENT, SCIENCE AND INNOVATION

Whether you're dreaming of exploring the mysteries of the universe or making a difference in our environment, you could make science a career of choice with government departments like DESI!

EY

EY might be known as leaders in the professional services industry, but they also offer roles in STEM to join their technology team!

FONTERRA

As dairy industry leaders, Fonterra may conjure up images of cheesy pizzas and buttery toast, but their Automation Engineering Graduate Program is perfect for electrical enthusiasts!






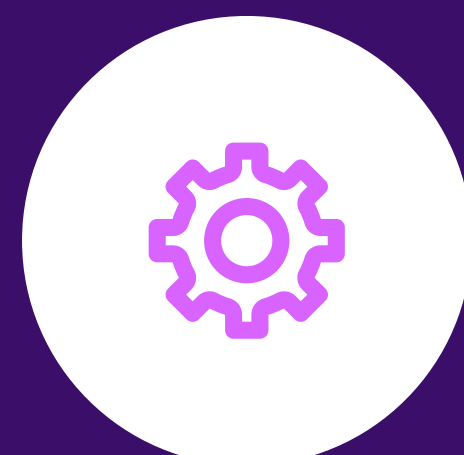

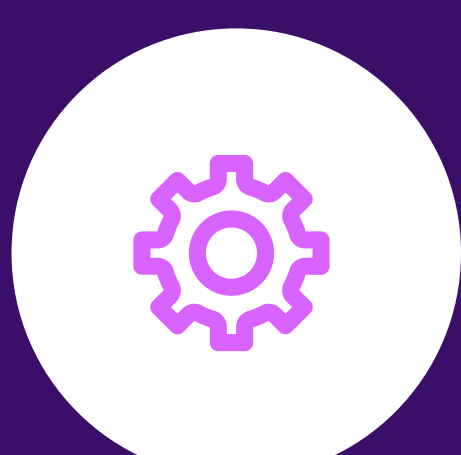
Department of Environment,
Science and Innovation



How Do I Know if STEM is Right for Me?

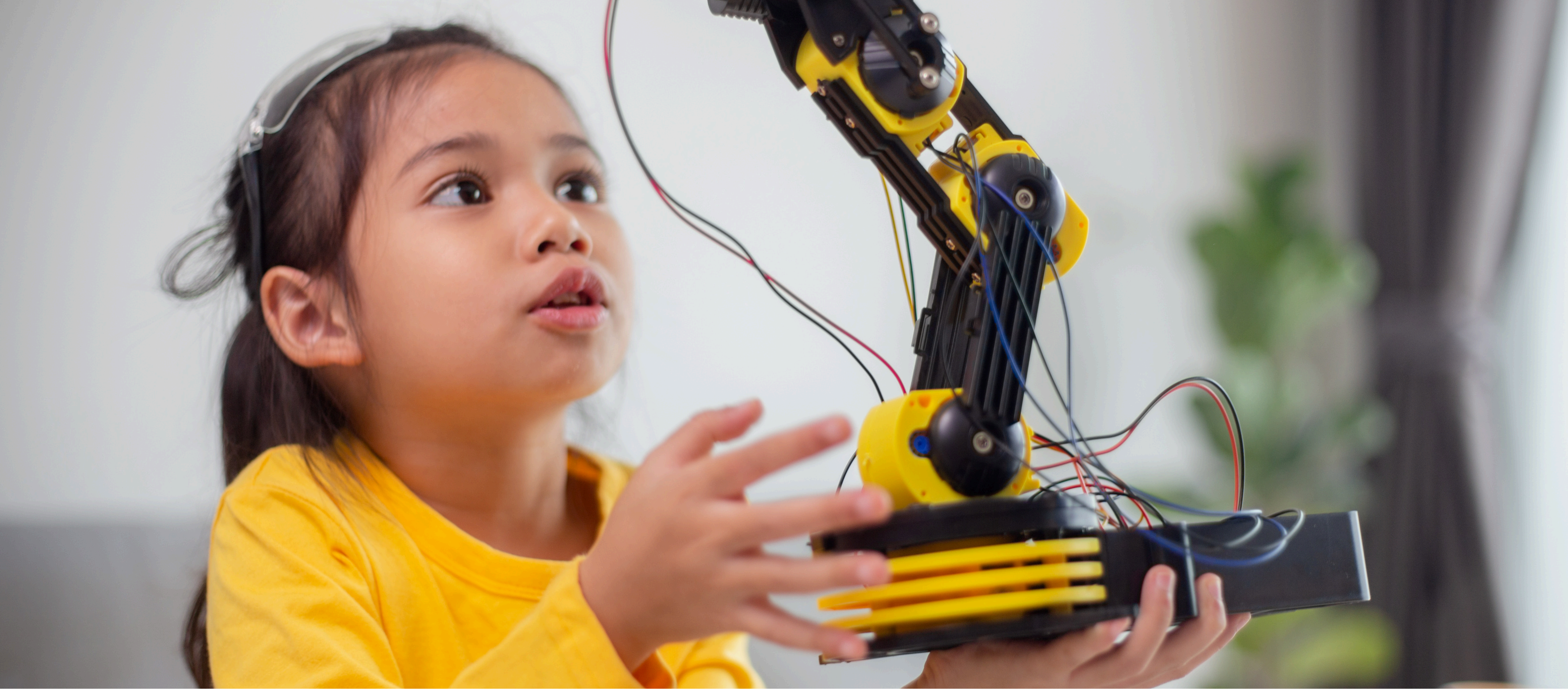
Do your interests align with a STEM career? If you identify with any of the following, a career in STEM could be perfect for you:

The image features a central yellow rounded rectangle containing six numbered cards arranged in two rows of three. Each card has a white background with a dark purple border and a purple header with a white number. The cards are numbered 1 through 6. Each card contains a circular icon, a dotted line, and a text description. The icons are: 1. Target with arrow, 2. Erlenmeyer flask, 3. Target with arrow, 4. Gear, 5. Erlenmeyer flask, 6. Gear.

- 1

.....
You learn by being hands-on
- 2

.....
You enjoy coming up with new solutions
- 3

.....
You think outside of the box
- 4

.....
You want to make the world a better place
- 5

.....
Scientific discoveries and advances inspire you
- 6

.....
You've always been curious about how things work

TAKE THE CAREER QUIZ





Getting Technical: STEM Skills

To put you on the right path, we've put together a list of STEM skills that could help you out in your future careers. The abilities you need will depend on which STEM career you want to pursue, but starting with what you feel most excited about is never a bad idea! Discover these hard skills and see what jumps out:

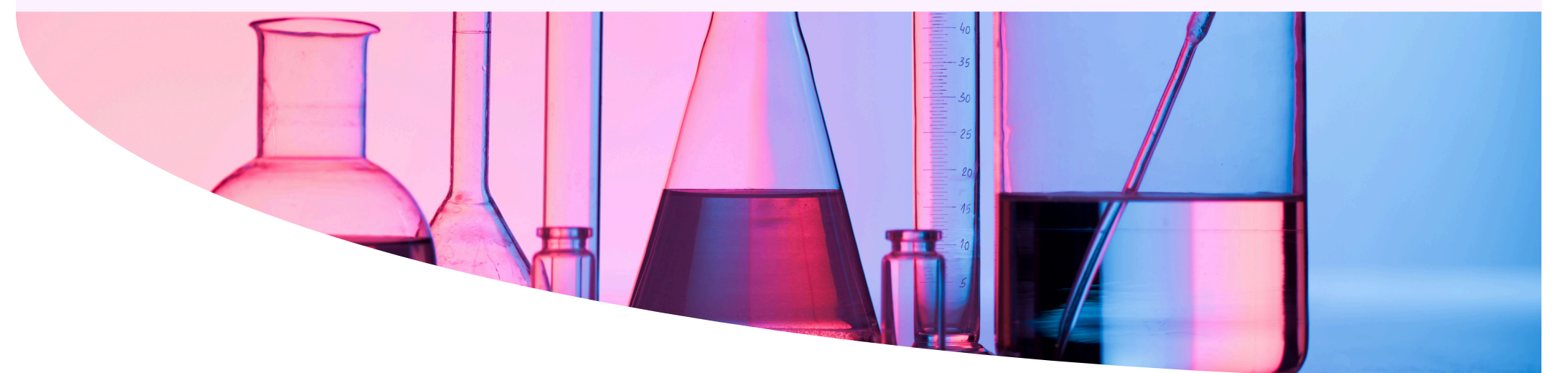
MATHEMATICAL REASONING



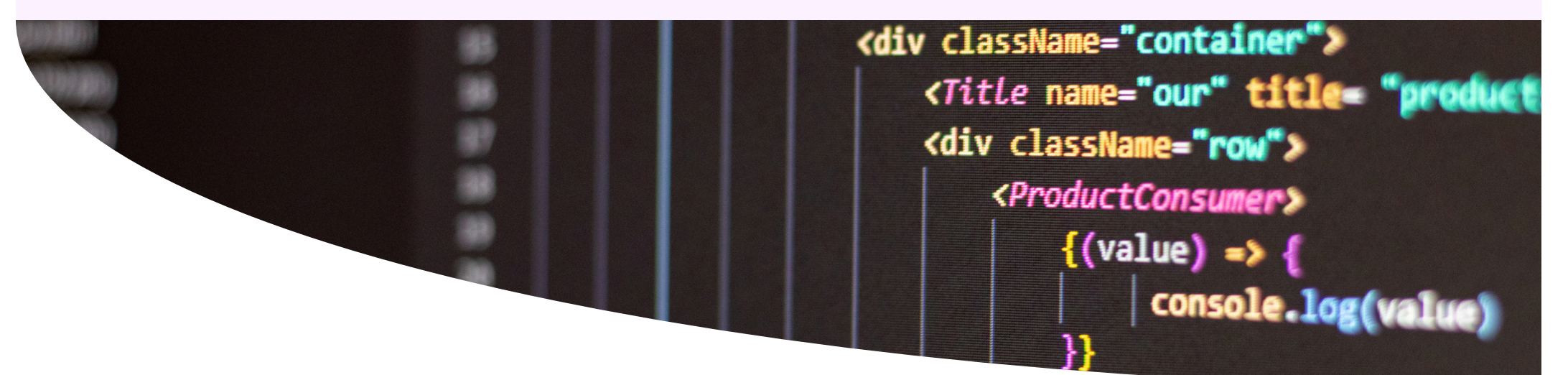
DATA ANALYSIS



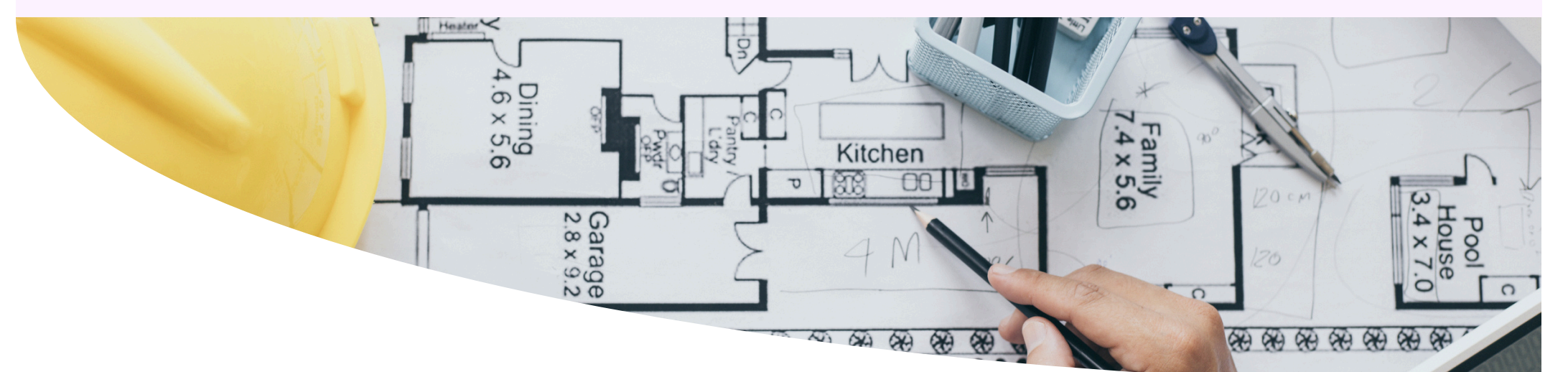
SCIENTIFIC INQUIRY



PROGRAMMING & CODING



ENGINEERING DESIGN



Women in STEM



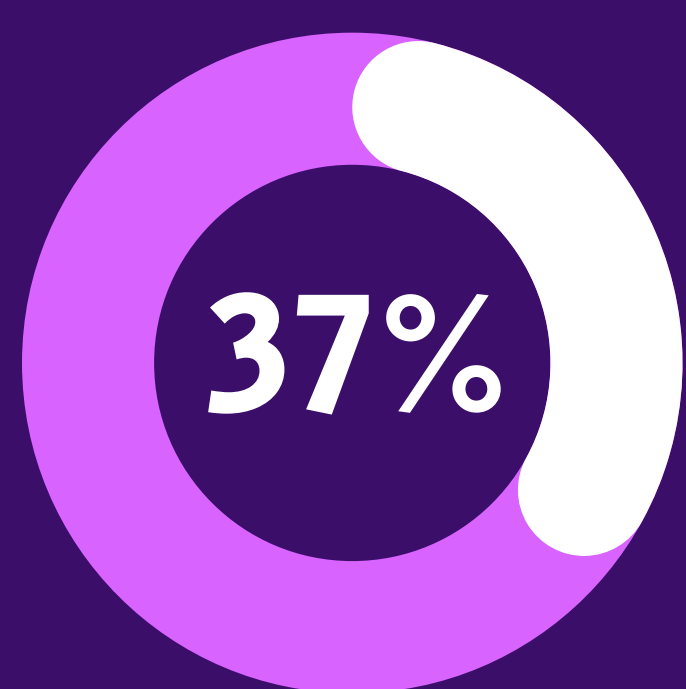
While women make up 48% of Australia's workforce, only 15% of STEM-qualified jobs are held by women. That's why we wanted to highlight STEM careers that support women who are breaking into this space!

Opportunities for Women in STEM:



- SAS are BIG on supporting women in STEM, from their in-person Girls in Tech events to their Best Workplace for Women accolades.
- CitiPower & Powercor's Women in Engineering Scholarship Program is encourage women to explore exciting STEM pathways.
- STEM Women in an online directory of women working in the STEM industry across Australia, offering career opportunities and resources specifically for women.

Women in STEM stats:



Women make up 37% of enrolments in university STEM courses.



Only 15% of STEM-qualified jobs are held by women

Source

“What’s one thing you wish people understood about your industry?”

“Cochlear being a biomedical engineering company and having the social stigma of women working in the STEM industry, I feel like Cochlear has a lot of diversity, and women are very much supported in this company.”

~ **Linda, Process Engineer at Cochlear**



“What advice do you have for women wanting to get into engineering?”

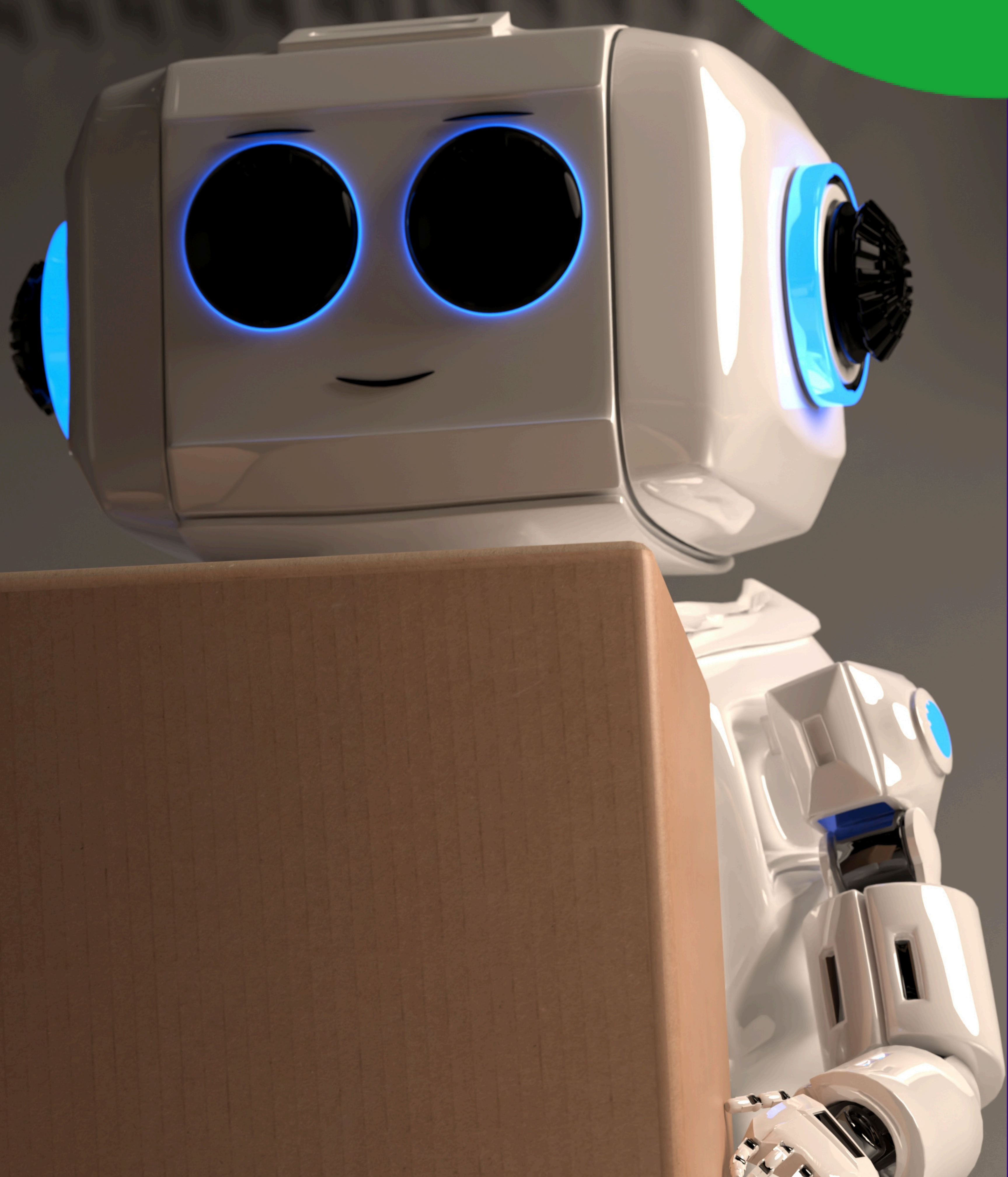
“

“Try to source engineering experience as early on into your engineering degree as possible and start networking.

“Always be open to taking up challenges and don’t limit yourself, there’s always so much to learn!”

~ **Recipient of CitiPower & Powercor’s Women in Engineering Scholarship program**


WHERE DO I GO FROM HERE?



Join our mailing list

Click the button to be the first to hear about early-career opportunities, student jobs, industry news and much more!





If you've made it this far, you're likely considering a career in STEM - congratulations!

Here at Explore Careers, we're pretty passionate about helping students find their perfect career pathway. That's why we've put together our top STEM resources so you can keep exploring:

Why Choose a STEM Career

[Discover Fascinating Science Careers](#)

[Women in Engineering](#)

[Browse all free STEM Career Resources](#)



CURIOUS ABOUT HOW DATA SHAPES OUR WORLD?

Unlock the secrets of data with the [FREE SAS Data Literacy Toolbox](#). Check out the toolbox now to find the perfect data course for you, and discover the powerful ways data impacts us everyday with SAS!



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