

STEM

By Dylan Cooke, Grace Coffey, Caoimhe Syder, Gavin Defoubert, Eloise Henley and Callum Rogers

WHAT IS STEM?

STEM stands for science, technology, engineering and mathematics.

Science represents observing, experimenting, making predictions and asking questions.

Technology represents being inventive, using tools, making things work, identifying issues and using computers.

Engineering represents solving problems, using materials, designing and creating and building.

Mathematics represents patterns, sequencing, exploring shapes, volume and size.

CAROLYN C. PORCO

Carolyn C. Porco is an American planetary scientist who was born in 1953 (current age is 68). She explores the outer solar system, beginning with her imaging work on the voyage missions to Jupiter, Saturn, Uranus and Neptune in the 1980s. She led the imaging science team on the Cassini mission in orbit around Saturn.



Carolyn was 13 years old when she experienced her first cosmic connection! By the time she was in high school she had developed a deep interest in astronomy. Carolyn was born in Italy but she grew up alongside four brothers in the Bronx, New York. She is a senior research scientist at the Space Science Institute in Boulder, Colorado.



CAROLYN C. PORCO IS VERY INTERESTING!

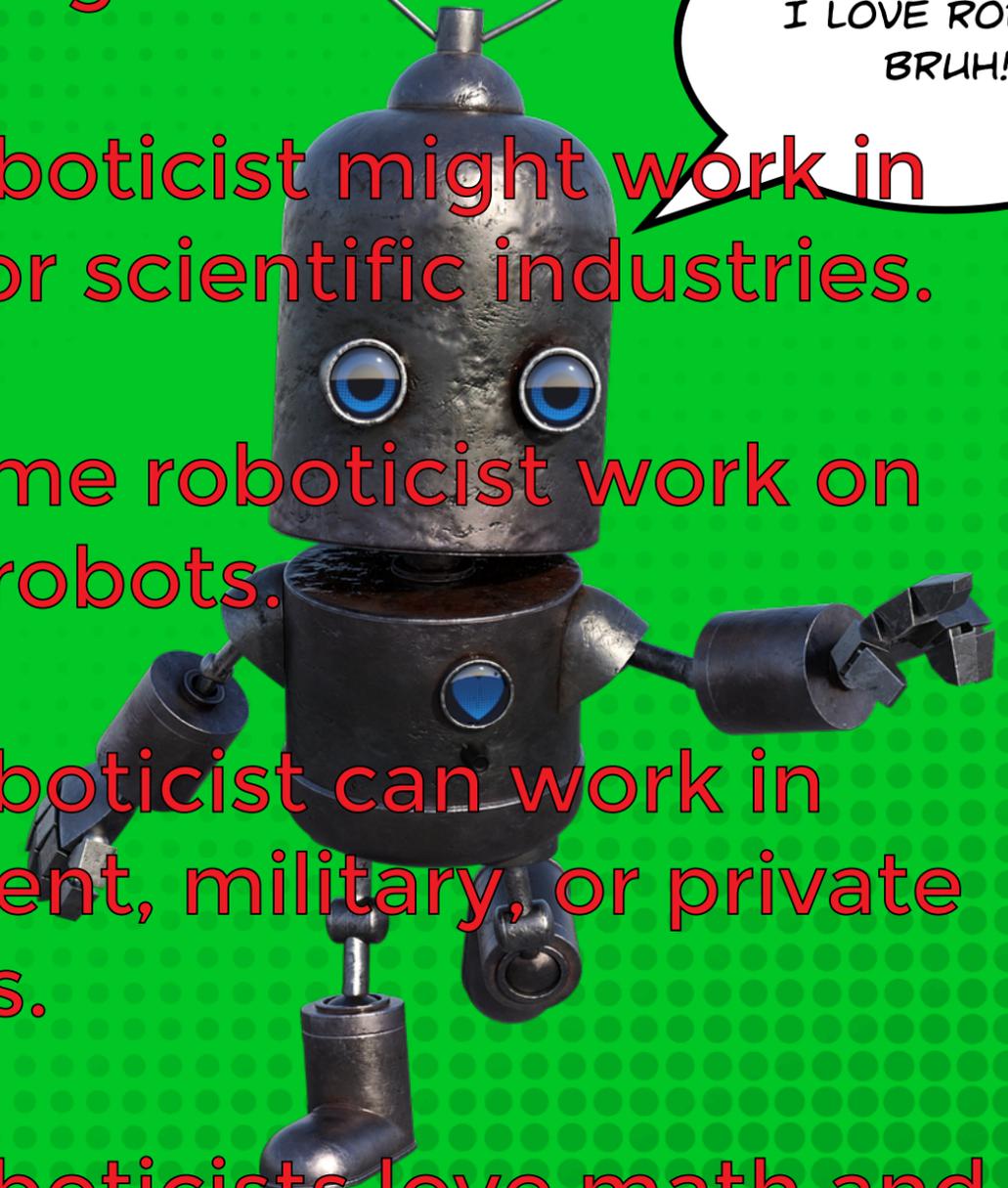
1..... Robotician usually have a bachelor's degree in some type of engineering.

2..... Robotician might work in medical or scientific industries.

3..... Some robotician work on creating robots.

4..... Robotician can work in government, military, or private industries.

5..... Roboticians love math and science.



I LOVE ROBOTS BRUH!



MICRO BIOLOGIST



Micro biologist

1. Microbiologists study the microscopic organisms that cause infections, including viruses, bacteria, fungi and algae. They focus on the identification and growth of these organisms in order to understand their characteristics, with the overall aim to prevent, diagnose and treat infectious diseases.
 2. Becoming a Microbiologist typically takes about four or five years as most Microbiologists enter the field after earning a Bachelor's Degree. If you choose to earn a Master's Degree, it may take an additional two years to become a Microbiologist
 3. Microbiology is really interesting due to a number of reasons. It includes laboratory work, computational work, field work, etc., that is, something for everybody. More importantly, microbiology enhances our understanding of various diseases and their cures, soil characteristics and fertility, etc.
 4. Best countries to study microbiology
 5. USA.
 6. New Zealand.
 7. Canada.
 8. Australia.
 9. Finland.
 10. Ireland.
 11. Lebanon.
5. Microbiologists typically pursue Doctor of Medicine (M.D.), Doctor of Philosophy (Ph. D.) or combined M.D.-Ph.
6. Microbiologists work in hospitals, universities, medical schools, government laboratories, and almost every industry, specializing in a variety of areas, from agriculture to the space industry. Microbiologists work in hospitals, universities, medical schools, government laboratories, and almost every industry, specializing in a variety of areas, from agriculture to the space industry.



5 FACTS ABOUT OCEANOGRAPHERS

1.... There are many different types of oceanographers such as biological oceanographers, chemical oceanographers, geological oceanographers and physical oceanographers.

2.... Biological oceanographers study plants and animals in the marine.

3.... Chemical oceanographers study what makes up sea water and how it moves. They also look at how the sea floor interacts.

4.... Geological oceanographers explore the ocean floor and look at how mountains and valleys are made.

5.... Physical oceanographers look at things such as waves, currents, tides, costal erosion and movement of the sand.



I LIKE THE OCEAN!

AUTOMATION ENGINEER

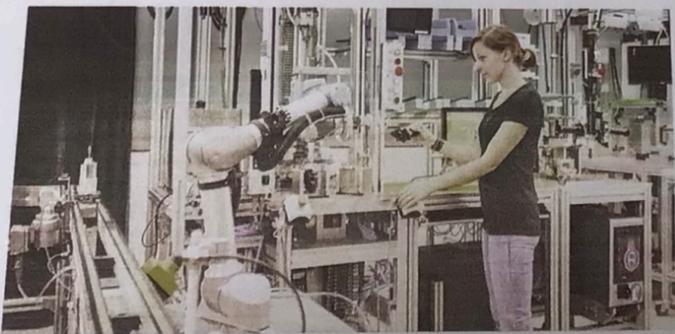


1. What does an automation engineer do? An automation engineer uses technology to improve, streamline and automate a manufacturing process.

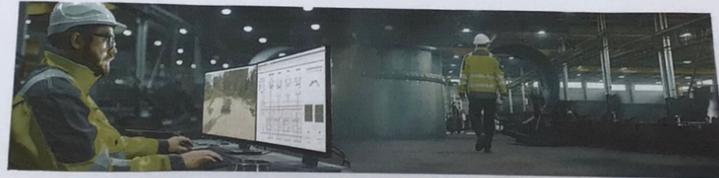
2. Automation engineer's work in lots of different industries like
- Pharmaceutical manufacturing
 - Medical device manufacturing
 - Chemical and petrochemical
 - Food and beverage
 - Oil and gas
 - Mining
 - Water and wastewater
 - Large infrastructure (road and rail)
 - Clothes manufacturing



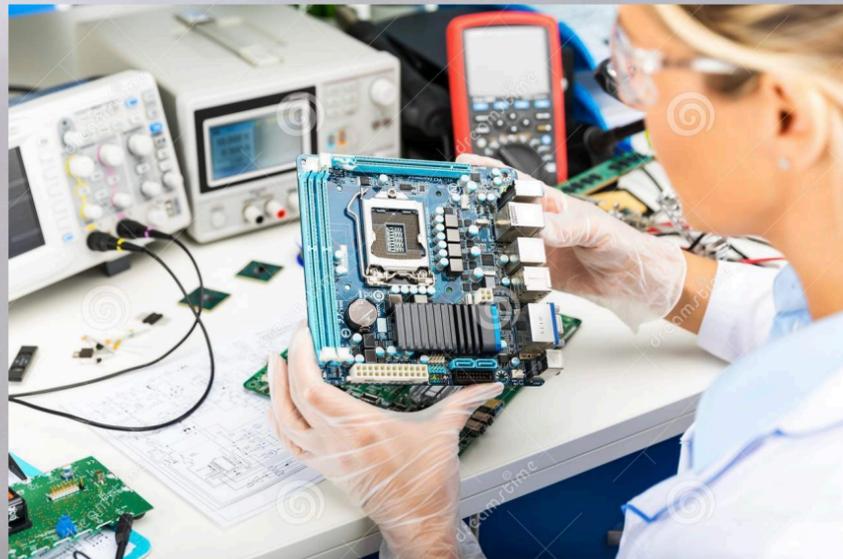
3. The automation engineer programs small computers called PLCs (Programmable Logic Controller). These computers are like the brain of the machine and tell the machine or robot what to do.



4. Often the machines do tasks that humans cannot do, like lift very heavy object or work in places that are too dangerous for people.



5. Automation engineers are good at problem-solving. Creative thinking is required to troubleshoot problems as they arise and find effective solutions.



MARINE BIOLOGY

1. Marine biology is the study of organisms and ecosystems in the ocean and other saltwater environments.

2. To become a marine biologist you need a degree in marine science, biology, geology ecology, oceanography or zoology, followed by a PhD to work in a research position.

3. The average salary of a marine biologist is 40k but can go higher than 70k.

4. Marine biologists can specialise to work with dolphins, whales, turtles, etc.

5. Some marine biologist work in aquariums.



FIDELMA FITZPATRICK

FIDELMA IS A MEDICAL DOCTOR AND CLINICAL MICROBIOLOGIST.

SHE HAS WORKED IN STEM FOR 30 YEARS!

FIDELMA WANTED TO BE AN ASTRONOMER BEFORE SHE WAS A MICROBIOLOGIST.

SHE IS A CLINICAL MICROBIOLOGIST AND A LECTURER, SO SHE TEACHES PEOPLE TO BECOME DOCTORS.

SHE WORKS ON TINY STUFF LIKE VIRUSES AND BUGS.

FIDELMA WORKS IN BEAUMONT HOSPITAL.

SHE WAS 8 OR 9 WHEN SHE FIRST GOT INTERESTED IN STEM.

SHE WENT TO TRINITY COLLAGE AND STUDIED MEDICINE.

FIDELMA'S FAVOURITE THINGS ABOUT HER JOB ARE HELPING PEOPLE AND TEACHING.

SHE REALLY LIKED SCIENCE AND CHEMISTRY!

HER FAVOURITE SUBJECT WAS SCIENCE.

BOTH GENDERS GET PAID EQUALITY IN HER JOB.

SHE WOULD NEVER CONSIDER CHANGING HER JOB AND HIGHLY RECOMMENDS IT!



ZOOLOGIST

1. Zoologists study many things like animal species, population interaction, their distribution, etc.

2. Zoologist can work in national parks, zoos and also education parks.



3. They have a passion to help animals.

4. Zoologists can work in laboratories as well as in the field.

5. The average yearly pay for a Zoologist in Ireland is €60,496.

STEM

We have been learning all about gender equality and jobs in STEM.

Our goal is to get woman and girls to be interested in STEM jobs (science, technology, engineering, mathematics) because a lot of woman don't end up going into these jobs, even if they studied them in collage or in secondary school and most of the time girls do the same and some times even better then the boys in these subjects!

We were learning about jobs to do with STEM in school, and most of the girls and boys were really interested in the jobs they picked to research about. We had a visit from Fidelma Fitzpatrick and we got to interview her. Fidelma works in STEM, she is a medical doctor and a clinical micro biologist. It was so nice to talk to her! We have really enjoyed learning about STEM.

Thank you for reading our book!

