

## Careers in Science

### **Where can Science take you? Anywhere!**

Studying science opens up a whole world of possibilities. STEM science careers are jobs where people use science to learn how the world works and help others. They might study plants, animals, the Earth, or how the human body stays healthy. Some science jobs include being a biochemist, environmental scientist, forensic scientist, or healthcare scientist.

People in these jobs often work in labs, outdoors, or with computers. They solve problems, do experiments, and work as a team to help fix real-life problems, like keeping people healthy and protecting the planet.

### **Materials scientist (Materials)**

Material science is about discovering why different materials behave the way they do, why we make something out of one material rather than another and why materials wear out.

Material scientists find out what makes materials degrade, which helps predict when things are likely to stop working properly. This is important in things like aeroplanes, as we would not want any parts suddenly breaking mid-air! It also helps us to find out how to design things to last longer, which is good for the planet.



Dr Pearl Agyakwa



### **Zoologist (Animals including humans)**

Zoologists study the anatomy, behaviour, classification, evolution and distribution of animals. They work with animals in the laboratory, in captivity or in their own habitats. Examples of the work of zoologists include animal conservation and welfare, controlling pests and diseases, drug development and testing and improving livestock in agriculture.

### **Optometrist (Light)**

Optometrists were previously known as opticians and are trained to examine the eyes to detect defects in vision, signs of injury, ocular diseases or abnormality. They are also able to detect problems with general health, such as high blood pressure or diabetes. They make a health assessment, offer clinical advice, and prescribe spectacles or contact lenses. They refer patients to an ophthalmologist for further treatment when necessary.





### **Mining Geologist (Rocks)**

A mining geologist is a professional who applies the science of geology to mining. They ensure that minerals, rocks, and gems are extracted from mines, pits, and quarries, allowing maximum profit and minimal problems. They must first locate the minerals using tools such as aerial photographs, field maps, and geophysical surveys. The mining geologist then maps and makes computer models of the area

and records geological data to produce accurate details of the location, structure, and distribution of minerals.

### **Robot Engineer (Forces and Magnets)**

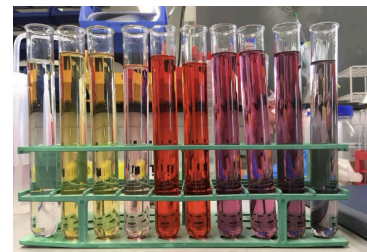
A robotics engineer is responsible for creating robots and robotic systems that are able to perform duties that humans are unable or prefer not to complete. They design and build robots that help to make jobs safer, easier, and more efficient, particularly in the manufacturing industry. Robotics engineers may work in the agricultural, military, medical, and manufacturing industries, developing new uses for robots, designing improved robots for existing systems, or repairing and maintaining industrial robots.



### **Chemist (Earth and Space)**

I make tiny, bright structures called nanoparticles - these particles are over thirty thousand times smaller than the width of a human hair. I use these nanoparticles to try to deliver medicine directly to cancer cells, to kill cancer cells, but keep healthy cells alive.

Eliza Hunt



Chemists solve problems! This could involve making new medicines to treat diseases (like cancer) or finding new ways to generate sustainable energy - there are so many things that chemists do to make the world a better place.

### **Music Producer** (Sound)

A music producer oversees the entire production of an album, working with sound engineers, managers, songwriters and artists to create the final product. A music producer understands every aspect of studio production and knows how instruments and voices produce recordable sound. They must imagine the end result, so they listen to, experiment with and explore all aspects of music to create a potential future hit.



### **Solar scientist** (Electricity)

A solar scientist is a type of astrophysicist who studies the Sun and its interactions with the Earth. They make detailed measurements of our nearest star using observations from solar satellites. Solar scientists study the impact of the sun on the Earth and on our technology. They are working on ways to capture solar energy more effectively, which could slow down global warming.

### **Palaeoanthropologist** (Adaptation, Evolution & Inheritance)

Palaeoanthropologists study the origins and development of early humans using fossil remains. They use biological evidence such as fossilised skeletal remains, bone fragments and footprints alongside cultural artefacts such as stone tools, which were made by early humans, to discover how the human species developed and evolved. Understanding what happened in the past is a very useful way to help us predict what might happen in the future.



### **Science communicator**

Science communicators communicate science to the general public. They need to make scientific research understandable to people who may not have a background or career in science. Science communicators can be science journalists or work in a university press office promoting the scientific research carried out by academics. They may deliver science shows or organise events at science festivals, schools or science centres or design and make interactive exhibits for science centres.