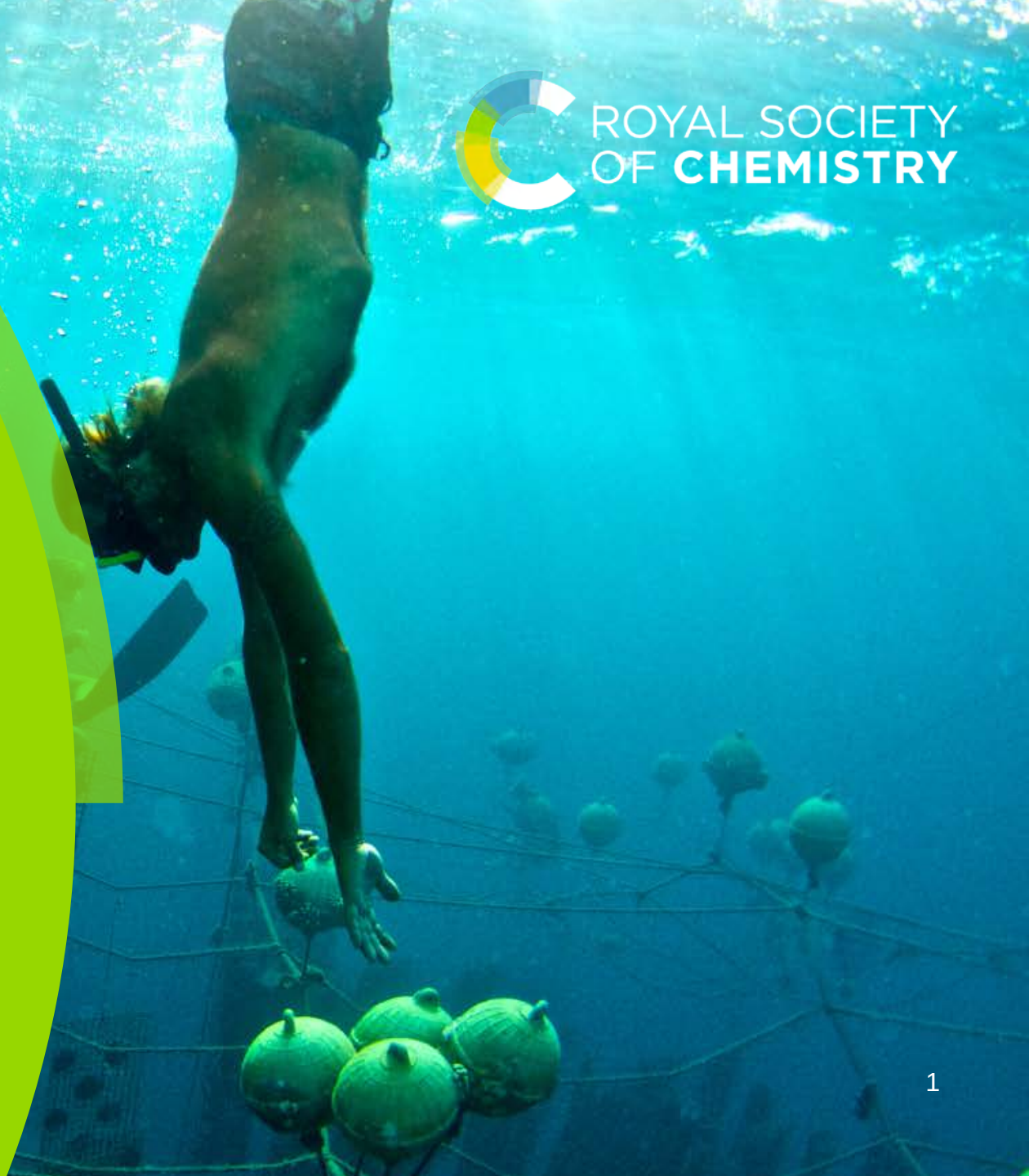
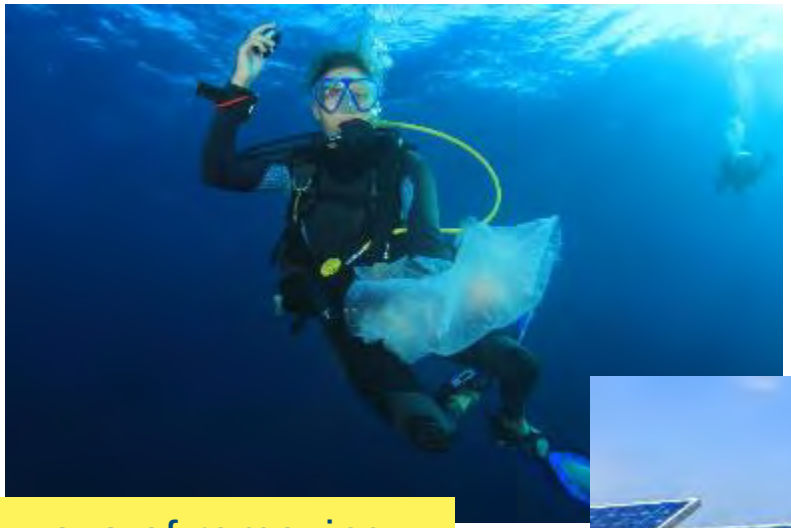
# Where chemistry could lead you



ROYAL SOCIETY OF CHEMISTRY

# As a chemical scientist you could be…



Developing ways of removing plastic waste from the oceans

Making a difference to life through drug discovery, combating antibiotic resistance

Reducing pollution, discovering ways to harness and store energy using clean, green power

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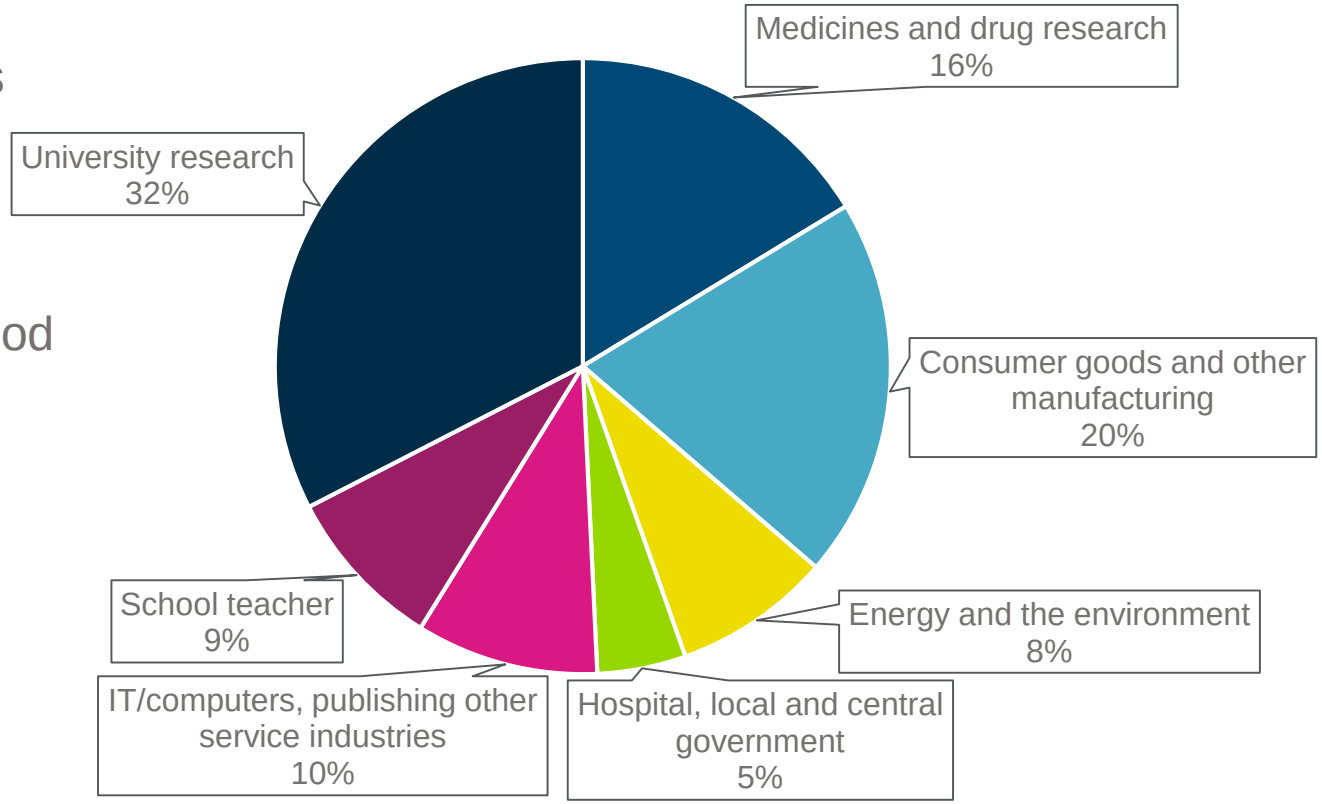
# Chemical scientists are employed across many sectors

Where Royal Society of Chemistry members work*

- Medicines and drug research
- Manufacturing e.g. everyday materials, food and drink, agrochemicals, toiletries,
- Education
- Medical/health sector to work in scientific support, analysis, teaching or research




* 2017 RSC membership annual report

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# Chemical scientists are paid well

- 15% higher starting salaries for chemistry graduates compared with graduate average
- Chemistry graduates have a high employment rate
- >70% of chemistry students enter a professional or managerial role after graduation
- Double the UK average go into further study after graduation

ROYAL SOCIETY OF CHEMISTRY

# Chemical scientists have the skills employers look for

Skills for successful careers:

- Problem solving
- Logical thinking
- Reasoning
- Numerical ability and computational skills
- Team working
- Communication

Picture: © Royal Society of Chemistry / Stephen Lake

# What you can do as a chemical scientist

**You could become an**

**Analytical chemist**: you check what chemicals there are in substances e.g. blood at a crime scene.

**Laboratory technician**: you collect samples, analyse and perform tests on chemicals, materials or products.

**Medicinal scientist**: you design and develop drugs to treat disease.

**Production chemist**: you develop and improve oil, cosmetics, fertilisers and other products made from chemical reactions

**Research chemist:** you find out about chemical compounds to create and improve processes and products, from new medical treatments to cosmetics, electrical goods and food and drink

**Environmental scientist**: you monitor what is in the air, water, and soil to find out what affects they have, and how human activity affects the environment.

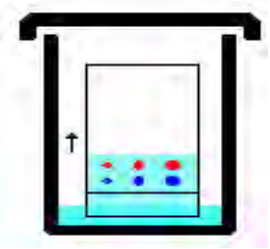
Britain's first female prime minister and the first Briton in space both studied chemistry at university

# What else you can do as a chemical scientist

- Teaching
- Law
- Financial service
- Business/Management
- Medicine
- Veterinary science
- Computer Science
- Chemical Engineering
- **…all employers and sectors value chemistry**

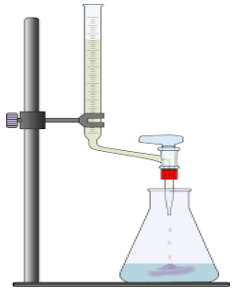
# Some of the ways chemistry is used at work

**Forensic Scientists use chromotography to help identify criminals and bring them to justice.**



**Automotive chemists use electrolysis to electroplate vehicles to make them last longer and to look good.**

**Food scientists use titration to discover the amount of salt or sugar in a product or the concentration of vitamin C, which can effect the product's colour**



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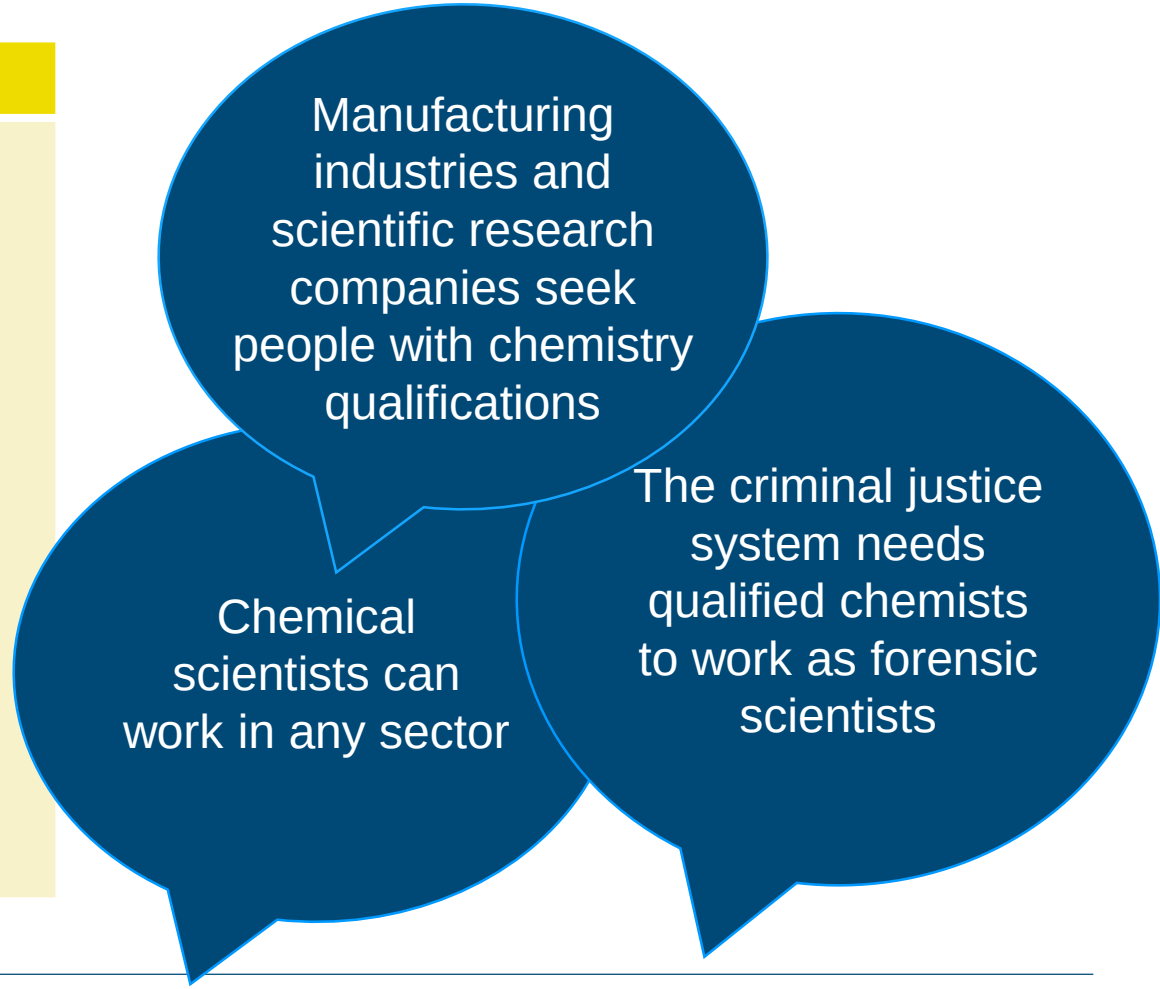
# Where can you work with a chemistry qualification?

**You could work at a**

- Pharmaceutical, food, energy, materials, polymers, biotechnology, paint or chemicals company
- Hospital
- Environmental agency
- Consultancy
- University
- Government agency
- Public health laboratory
- Testing company

Anywhere

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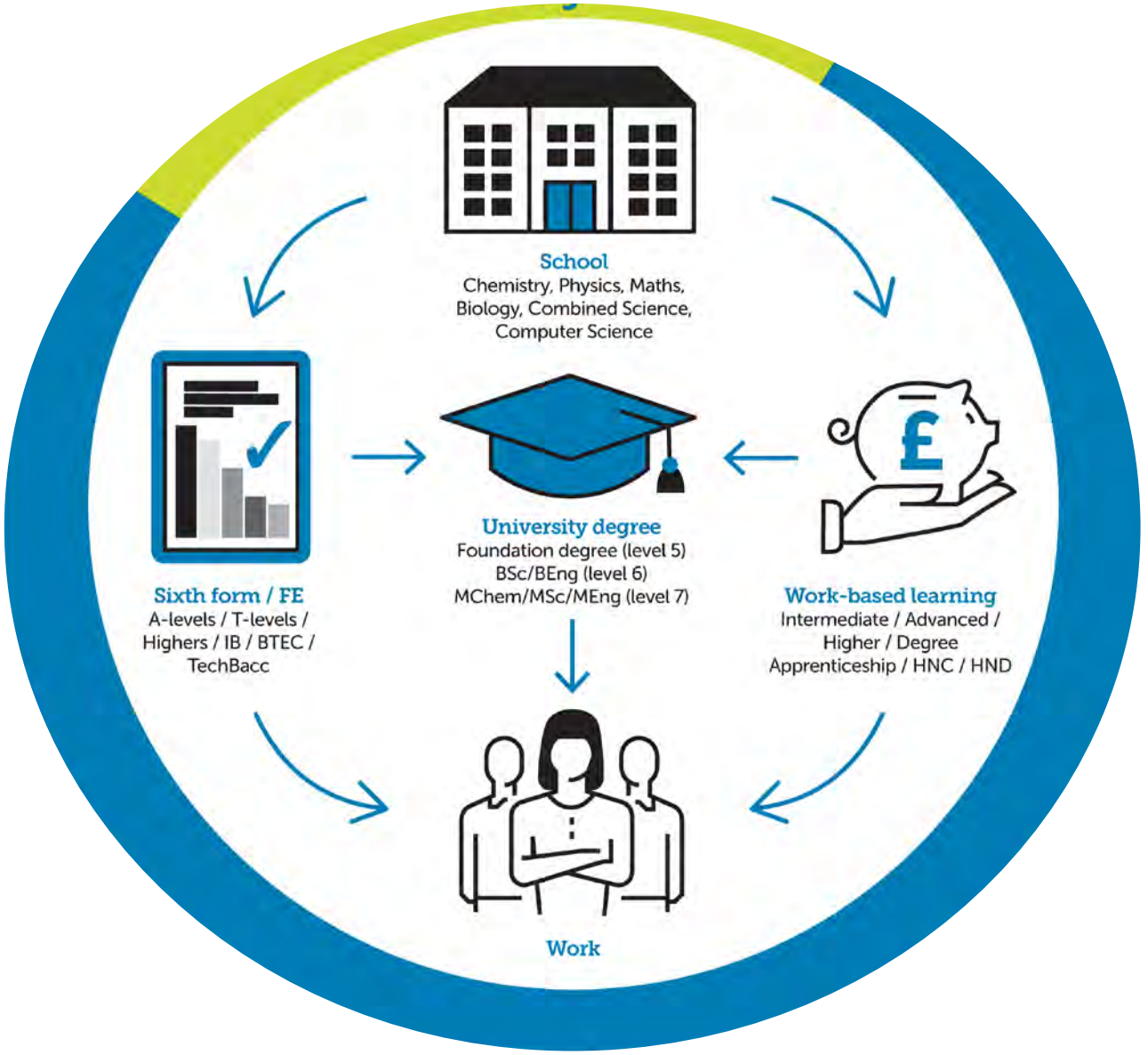
# How to get qualified

Options after GCSE

# Getting in to Chemistry



# Continue studying

**A levels:**
two year curriculum study with final assessment. Emphasis on academic skill. Progression on to higher education, to an apprenticeship or entry level employment in the science sector. Recognised by UK universities

**BTEC:** level 3 in applied science (various options), flexible and equivalent to up to three A levels. Emphasis on vocational content. Progression to higher education, to an apprenticeship or entry level employment in the science sector. Recognised by some universities, check admissions policy of university

**International Baccalaureate Diploma:**
two year programme, academic. Progression to higher education, to an Apprenticeship or entry level employment in the science sector. Recognised by many universities worldwide

# Combine study with work

**Options:**

- **Apprenticeships** suitable if you know what occupation you want to pursue, want to earn a wage and learn at the same time and are ready to enter the workforce at age 16. 80% on-the-job, 20% in the classroom.
- **Higher National Certificates (HNCs) and Higher National Diplomas (HNDs)** work related qualifications which are equivalent to the first year of a degree course (HNCs) or the first two years of a degree course (HNDs)
- **T levels**, available 2021, equivalent to three A levels these two year courses offer a mixture of classroom learning (80%) and ‘on-the-job’ experience (20%) during an industry placement of at least 315 hours (approximately 45 days).