FURZE PLATT SENIOR SCHOOL

Chemistry department

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Head of Chemistry

How has chemistry changed the world?

Chemistry is part of our everyday life, it…

- Keeps us warm through increasingly efficient fuels and insulating materials.
- Feeds you through better fertilisers for growing food and refrigerants to store them.
- Treats you with drug synthesis and pharmacology.
- Keeps you safe with ultra-hard alloys and resistant polyamides.
- Connects us through longer lasting batteries.

Why study chemistry?

- Many of the challenges facing today's society will be overcome with the help of chemical scientists.
- Chemistry is sometimes called the central science because it bridges other natural sciences, including physics, geology and biology.
- Chemistry is an exciting and challenging subject. It can open the door to university courses that can lead to significant personal rewards.

Why study chemistry?

Studying chemistry will help to improve many of your skills including:

- numeracy;
- problem-solving;
- data handling;
- analysis;
- observation;
- team working;
- report writing;
- laboratory skills.

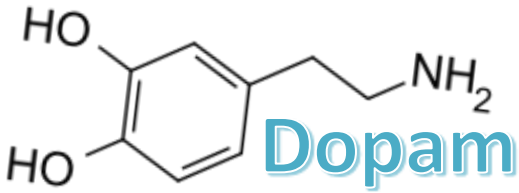
These are highly valued by employers and universities and can open the doors to a huge range of jobs, higher level and university courses.

Careers and courses require chemistry

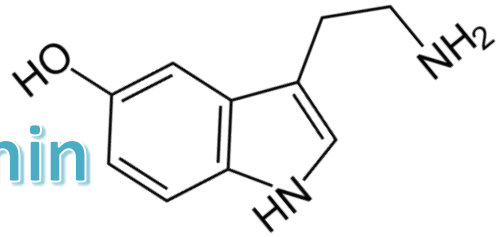
- Chemistry
- Agronomy
- Chemical engineering
- Nuclear chemistry
- Pharmacology
- Environmental science
- Materials science
- Metallurgy
- Dentistry
- Anaesthesiology
- Veterinary science
- Biochemistry
- Forensic science
- Medicine
- Neuroscience
- Toxicology
- Food science & brewery
- … the list goes on ….

Why study chemistry?

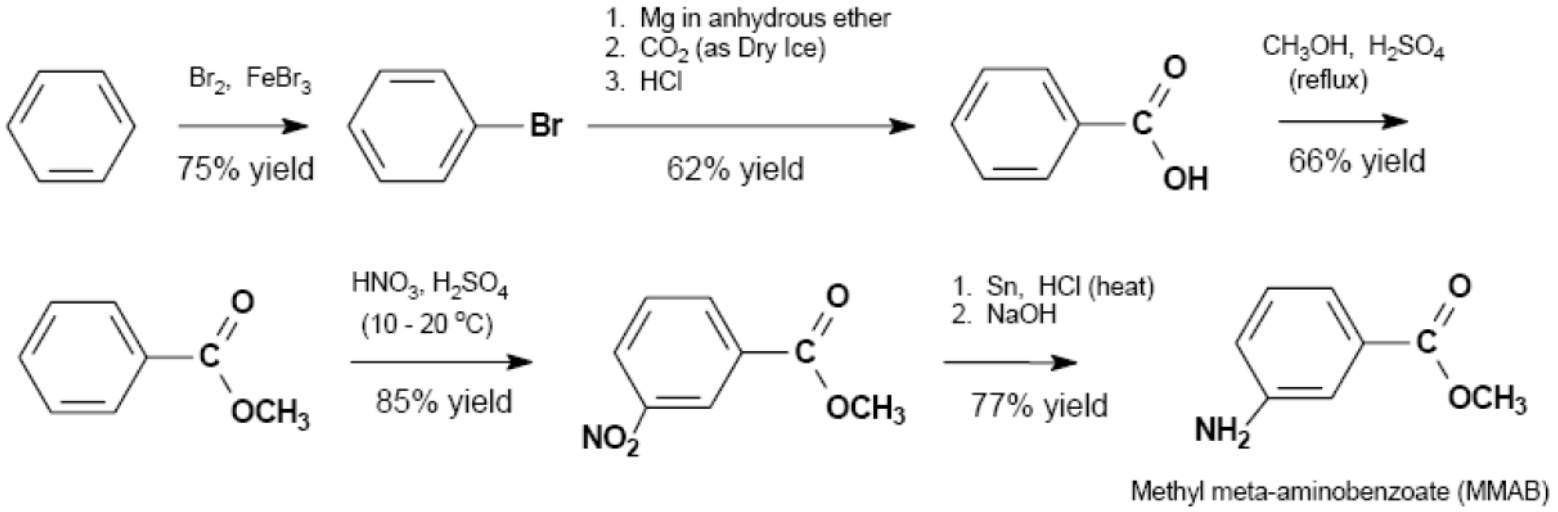
Chemistry is a hugely rewarding subject, and if cracking a challenging puzzle causes your dopamine and serotonin levels to peak, then it might be for you.



Dopamine



Serotonin



Methyl meta-aminobenzoate (MMAB)

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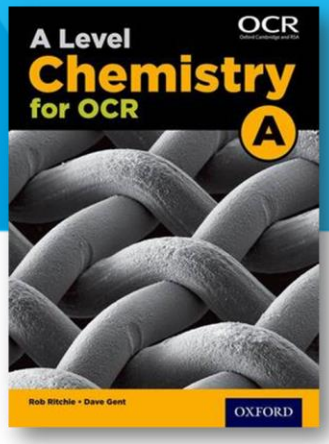

What will you study?

- OCR Chemistry A

Module 1
Development of practical skills in chemistry

Module 2
Foundations of chemistry

Module 3
Periodic table and energy

Module 4
Core organic chemistry

Module 5
Physical chemistry and transition elements

Module 6
Organic chemistry and analysis

Modules 2, 3, and 4 are studied in Year 12. Module 1 will span both years.

Terminal assessment model

270 marks

6 hours total assessment time

Extended response in all papers

Synoptic assessment across all papers

Practical based questions included in all papers

Paper 1: *Inorganic/Physical*
2 h 15
100 marks

Paper 2 : *Organic/Analytical*
2 h 15
100 marks

Paper 3: *Unified chemistry*
1 h 30
70 marks

Mathematics within chemistry

Numeracy and mathematical skills are essential for chemistry.

20% of the content will be maths above GCSE standard, there is no limit on maths of a GCSE standard.

- Application of data/equation
- Problem solving involving different areas of mathematics & decisions about direction to proceed

As such it is important that students have achieved at least a grade 5 in maths alongside their 6 in chemistry or grade 6/6 in combined science.

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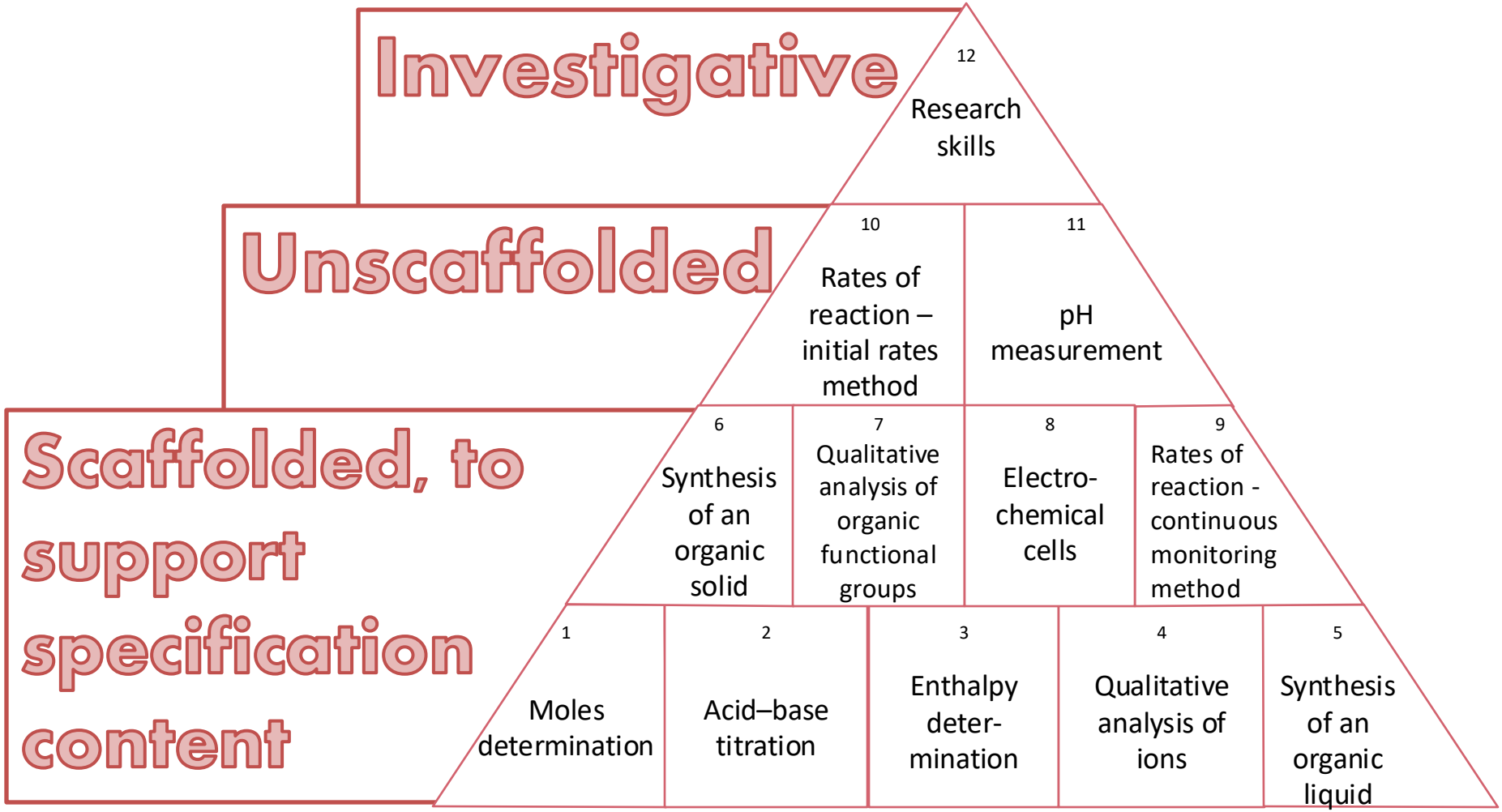
Practical endorsement



Progress trends in chemistry

- In 2025, our students achieved our best set of results with students making +1.24 levels of progress
- On average students achieved +1.24 of a grade higher than the national average for similar students.
- In 2024, they achieved a third-best score of +0.57.
- In 2023 this figure was +0.22, and in 2022 it was +0.38.
- Chemistry was been the best performing subject in the school by this measure last year, and the second-best for the two years prior.

What do our chemists do next?

In 2021, 20 out of 31 students (65%) went on to a STEM subject at university, 4 studying a chemistry-based subject.

In 2022, 17 out of 25 students (68%) went on to a STEM subject at university, 4 studying a chemistry-based subject.

In 2023, 24 out of 31 students (77%) went on to a STEM subject at university, 8 studying a chemistry-based subject.

In 2024, 22 out of 29 students (76%) applied to a STEM subject at university, 6 studying a chemistry-based subject.

In 2025, 15 out of 29 students (52%) applied to a STEM subject at university, 8 studying a chemistry-based subject.

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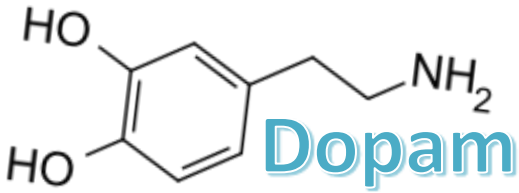

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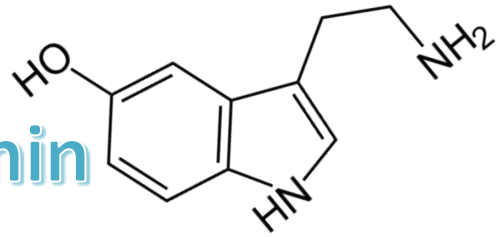

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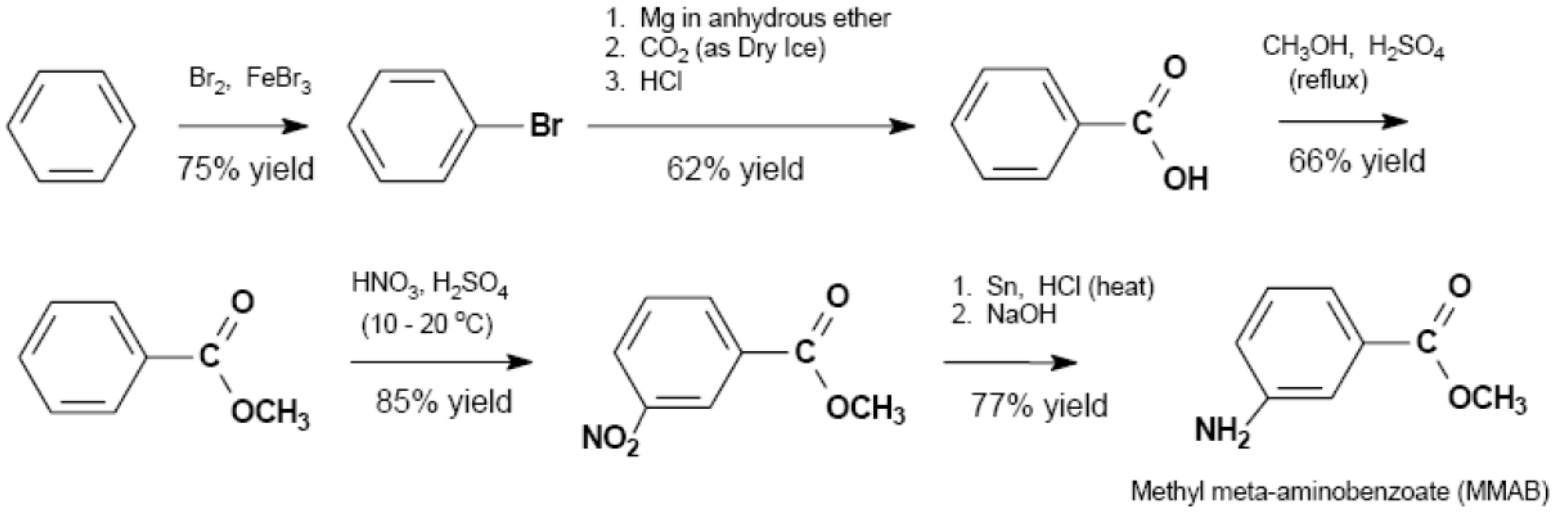

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