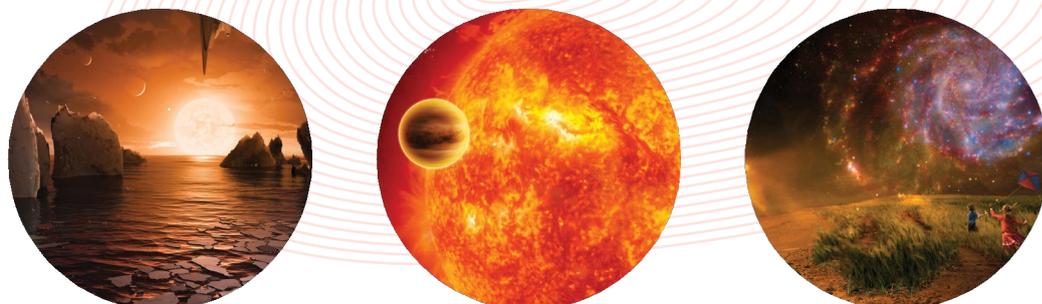


Biosignatures: Characterising Exoplanets with Spectroscopy

UNSW Science



A Year 12 Chemistry Depth Study at UNSW School of Chemistry

On-campus excursion dates for 2024 available from:

22 April – 24 May

5 August – 6 September

18 November – 6 December

The Year 12 Depth Study 'Biosignatures: Characterising Exoplanets with Spectroscopy' aims to engage students in a unique application of spectroscopy – the ability to detect life on exoplanets.

This is an unusual yet compelling application of spectroscopy which will motivate a now crucial component of the new HSC Syllabus.

This depth study consists of online lesson plans and resources, suggested assessments and a capstone excursion to the UNSW Chemistry laboratories. In this capstone excursion, students will engage with authentic scientific experiments in a hands-on experiment where they will use UV-visible spectrometers to investigate the composition of sample "planets", as well as have the opportunity to engage directly with researchers to discuss science, university and career.

This depth study links with a popular worldwide current research topic, including by UNSW researchers, and thus inherently links research with teaching.

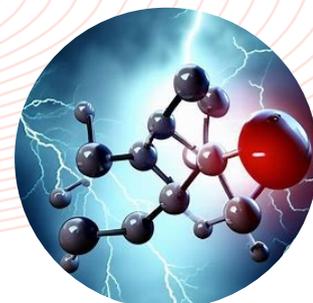
Further, the depth study is designed to bridge the gap between high school and university science skills with introduction to university data analysis using information technology tools, independent research components, scaffolded "Speaking to a Scientist" sessions and a scientific debate.

The 'Biosignatures: Characterising Exoplanets with Spectroscopy' depth study is a way to encourage passion in your students, skill development and provide authentic information about university life and scientific career paths.

For further
information contact:

School of Chemistry Outreach:
outreach@chem.unsw.edu.au

Making Medicines: Chemical synthesis and medicine development



A Year 12 Chemistry Depth Study at UNSW School of Chemistry

On-campus excursion dates for 2024 available from:

22 April – 24 May

5 August – 6 September

18 November – 6 December

The Year 12 Depth Study 'Making Medicines: Chemical synthesis and medicine development' aims to engage students in the process of designing and optimising the characteristics of compounds for medicinal use.

This depth study consists of online lesson plans and resources and a capstone excursion to the UNSW Chemistry laboratories.

In this capstone excursion, students will engage with authentic organic synthesis, making a variety of non-toxic aspirin and paracetamol derivatives, and then characterizing them by NMR and IR in a guided analysis workshop.

They will also have the opportunity to engage directly with researchers to discuss science, coming to university, and future careers.

This depth study links current research, including by UNSW researchers, with the HSC syllabus and is designed to bridge the gap between high school and university science.

The full day experience offers:

- an introduction to university synthesis and data analysis using information technology tools;
- independent research components;
- tours of the teaching labs and NMR facility; and
- scaffolded "Speaking to a Scientist" sessions.

The 'Making Medicines: Chemical synthesis and medicine development' depth study is a way to encourage passion in your students, skill development, and provide authentic information about university life and scientific career paths.

**For further
information contact:**

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outreach@chem.unsw.edu.au