Academic INSIGHTS

immerse EDUCATION

Natural Sciences



AGES AND LOCATIONS

Ages 13-15: Cambridge

Students are taught in separate age groups, with content and pace tailored to each.
Small classes, averaging 7 students.

COURSE INTRODUCTION

Four sciences connected, covering biology, geology, chemistry, and neuroscience.

You'll learn how to connect ideas across biology, geology, chemistry, and neuroscience, and apply them to a real-world problem.

You'll leave with a completed personal project and a personalised tutor evaluation to draw on in university applications.



EXAMPLE TUTOR

Matthew W

PhD candidate in Psychology, University of Cambridge (ESRC-funded); graduated summa cum laude, Princeton University

Matthew's research identifies the effects of the early caregiving environment on infant brain and behavioural development. At Princeton he studied molecular and cellular biology, organic chemistry, and physics alongside the behavioural sciences.

Natural Sciences sample syllabus

Academic INSIGHTS

WEEK ONE

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
AM	**Natural selection** Learn how traits that help an organism survive and reproduce are passed on.	**Biodiversity and conservation** Examine how ecosystems function and why conservation matters.	**The structure of the cell** Compare plant, animal, and bacterial cells and the functions each carries out.	**Immunity and disease** Explore how the body recognises and defends itself against harmful microbes.	**Rocks and fossils** Study how rocks form and what fossils reveal about ancient life and environments.
PM	**Evolution and adaptation** Study how life has diversified to suit different environments over millions of years.	**Intervening in natural selection** Debate where and how far people should intervene in the natural world.	**Microorganisms and health** Investigate how bacteria, viruses, and fungi affect health, ecosystems, and biotechnology.	**1:1 tutorial** Talk to your tutor about the areas of the natural sciences that interest you most, and get suggestions for reading and resources to take them further.	**Plate tectonics** Follow how the movement of the Earth's outer layer shapes landscapes over time.
		Creativity masterclass Explore divergent, convergent, and lateral thinking, then use SCAMPER to generate and pitch original ideas.		**Personal project supervision** Choose a topic for your personal project, plan your research, and start shaping your presentation.	

WEEK TWO

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
AM	**Natural hazards** Examine how earthquakes and volcanoes arise and how they reshape environments.	**Chemical reactions** Learn how substances change, including acid-base reactions and changes in energy.	**Neurons and the nervous system** Discover how nerve cells send and receive messages through the brain and body.	**Cognition, memory, and perception** Examine how the brain interprets the senses and how we think and remember.	**Personal project presentations** Present your natural sciences personal project to your tutor and peers.
PM	**Atoms, elements, and compounds** Explore the fundamental components of matter and how they combine.	**Chemistry and sustainability** Apply chemistry to pollution, sustainable energy use, and climate change.	**The brain and behaviour** Map how different brain regions shape emotion, perception, and decision-making.	**1:1 tutorial** Get feedback on your progress, and talk through your academic ambitions and the university courses and careers the natural sciences can lead to.	**Personal project presentations (continued)** Respond to questions and discuss your peers' presentations.
	Critical thinking masterclass Examine the attention economy, echo chambers, logical fallacies, and cognitive bias, then debate a live issue.	**Guest speaker evening** Learn from an inspirational speaker from fields such as broadcasting, writing, philosophy, and sport, then question and debate.	**Personal project supervision** Finalise your research and slides and rehearse your presentation ready for Friday.		**Graduation ceremony** Certificates, speeches, and celebration.

Please note: this is an example syllabus and is subject to change.
Not shown: full evening and weekend social and cultural timetable.