

Public Lecture Series

- Biological Sciences**
 - Environmental DNA Use and Application
- Chemistry**
 - Drug Discovery for the Treatment of COVID-19
- Earth Sciences**
 - Ancient Lakes and Seas On the Planet Mars
- Mathematics**
 - Reading Your Mind - Mathemagics
- Physics**
 - Science with the James Webb Space Telescope
- Statistics and Actuarial Science**
 - Role of Statistics in Health Sciences

Stay tuned for lecture dates!



Talk@MySchool Programme

Topic Highlights

We offer 29 science talks in 2022-23 to be delivered at your school!



ECOLOGY, ENVIRONMENT AND PLANET EARTH

- Dino Detective
- Earthquakes and Tsunamis
- How Biodiversity Science Can Save the Planet
- Moving to the Sea: Tales from the Ecology and Evolution of Seagrasses
- Roles of Plants in Global Climate Change
- Understanding Climate Change



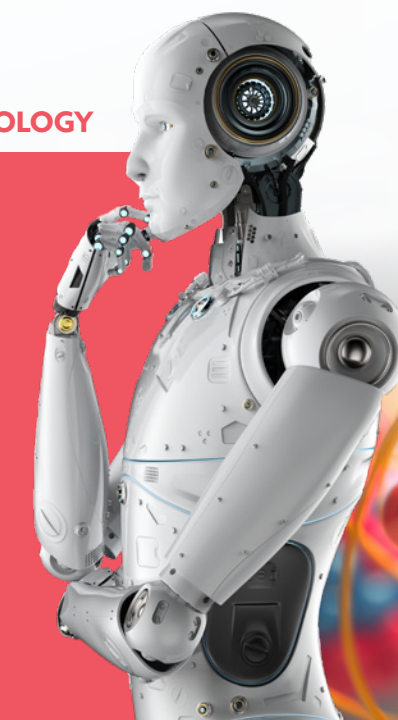
MYSTERIES IN SPACE

- Are We Alone: The Search for Planets around Other Stars
- Cosmic Fireworks
- The Galactic Graveyard and the Ultimate Fate of Our Sun
- The Sun — Our Nearest Neighbour



DEVELOPMENTS IN SCIENCE AND TECHNOLOGY

- A Brief History of Astronomy
- AI and Computation Research on Quantum Materials
- Bending the Laws of Nature: From Microscopy to Nanoscopy
- Can Fantasy Become Reality?
- Electron Transfer in the Microbial World
- Go with the Electron Flow
- How May Artificial Intelligence Change Our Society?
- Hydrogel: Materials Made from Water
- Molecular Gastronomy: A New Emerging Scientific Discipline
- Periodicity in Materials



UNDERSTANDING THE PHYSICS OF NATURE

The World of Particles



MATHEMATICS, STATISTICS AND DECISION MAKING

- Counting to Infinity
- Interesting Things about Interest Rates
- Prime Numbers: A Simple and Difficult Topic in Number Theory
- The Relevance of Mathematics and Statistics in Our Daily Lives
- What the Man Who Knew Infinity Knew

Details & registration



HKU Science Enrichment Programmes

for Secondary School Students 2022-23

NEW

TouchStart Science

3-day interactive summer workshops covering advanced topics and igniting your scientific inspiration

Campus Visit

Immersive experiences with guided tours and fun-filled demonstrations in campus or at our science museums

Talk@MySchool Programme

Interesting science talks covering a wide spectrum of disciplines will be delivered to secondary schools

Junior Science Institute (JSI)

Inspiring STEM workshops for participants to embark on a journey of science exploration

Public Lecture Series

Introducing and explaining frontier research findings in layman terms by Faculty academics

JUNIOR SCIENCE INSTITUTE

19 face-to-face workshops will be offered in first and second semesters of 2022-23



PHYSICS

- Observational Astrophysics
- Exploring Wonders of Flatland in Physics
- Living in the Material World
- Solar Observation

CHEMISTRY

- Colourful Food
- Molecular Gastronomy



ARTIFICIAL INTELLIGENCE

- Artificial Intelligence Chatbots
- Can Artificial Intelligence be Creative?
- Mixed Reality in Metaverse I
- Mixed Reality in Metaverse II

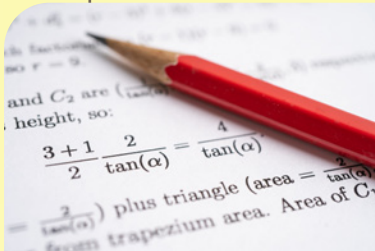
EARTH SCIENCES

- Plastic Pollution
- Geological Heritage of Hong Kong



MATHEMATICS

- Mathematics – An Octopus I 數學博達通 (一)
- Mathematics – An Octopus II 數學博達通 (二)



BIOLOGICAL SCIENCES

- Check Your Health
- Emerging Technologies to Monitor and Conserve Biodiversity
- Funky Fermented Food
- To See DNA Crossing and Exchanging
- Why Biodiversity Matters, and How Your Actions Make a Difference

Date	1 st semester session: November 12, 2022 (Saturday) 2 nd semester session: March 25, 2023 (Saturday)
Commitment fee	HK\$200 for face-to-face workshop (will be refunded upon successful completion of workshop)
Application deadline	1 st semester session: October 16, 2022 (Sunday) 2 nd semester session: January 31, 2023 (Tuesday)
Eligibility	Form 4 – 6 (secondary school students) Year 11–13 (international school students)

Details & application



Take your first steps

into the exciting world of science through the 3-day interactive summer workshops led by the enthusiastic researchers of HKU Science! Through talks, lab visits, demonstration, group projects and more, you will get the chance to delve deeper into more advanced topics in the scientific limelight. Embark on your journey into the exciting world of science and ignite your scientific inspiration!



Lab visits



Demonstrations



Science talks



In-class activities



Campus visits

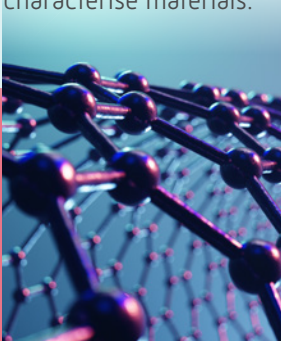


Admissions talk

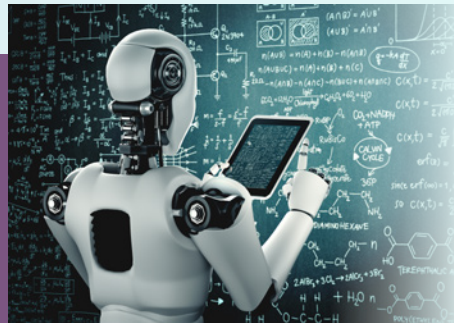
What's the Matter?



Everything in this physical world is made of matter. Why is particular matter used to make things functional? Why do different types of materials behave differently? This workshop provides an opportunity to explore the multidisciplinary field of materials science. Through hands-on activities, students will learn about the structure-property relationships of materials and scientific methods to characterise materials.



The Mathematical Foundations behind AI



The goal of this workshop is to expose students to some fundamental science behind artificial intelligence (AI), focusing on the essential mathematical concepts in areas like computation, optimisation, and probability. Teachers in the Department of Mathematics who have expertise in computational mathematics, scientific computing, optimisation, partial differential equations, machine learning, etc. will join and share some classical and modern approaches related to AI with the participants.

NEW TouchStart Science Summer Programme

Drug Discovery



Drugs play an essential role in our world, not only as effective substances for the prevention, diagnosis, and treatment of disease but also to improve 'quality of life'. The process of drug discovery typically involves understanding the character of targets (e.g., enzymes, cells, tissues, etc.) related to the disease, setting up the concept of drug design, providing lead compounds [via traditional medicines, natural products, biological macromolecules, compound libraries, computational chemistry, etc.]. In particular, analysing the structure-activity-relationships of a drug molecule and target plays a vital role in drug discovery and leads optimisation process. This workshop will help students to understand the mode of action at a molecular level suitable for secondary school students.

Stay tuned for more details about the workshops and registration!



Date	Jul 26-28, 2023 (Wed-Fri)
Time	10am-5 pm
Format	Face-to-face
Programme fee	HK\$ 2,500 / workshop
Eligibility	Form 4-6 (secondary school students); Year 11-13 (international school students)

Campus Visit

In 2022-23, guided tours, talks and demonstrations are designed for campus visit

Biological Sciences	Visit to the Hong Kong Biodiversity Museum
Chemistry	Workshop and Demonstration on the Microscopic World Let There Be Light: The Chemistry of Luminescence
Earth Sciences	Guided tour of Stephen Hui Geological Museum
Physics	Workshop and Demonstration on Superconductivity



The 2022-23 campus visit schedule and application period are available on our webpage



ADMISSIONS TALKS FOR OUR SCIENCE PROGRAMMES

- 6901 Bachelor of Science
- 6688 Bachelor of Science & Master of Research (Science Master Class)
- 6858 Bachelor of Science & Bachelor of Laws
- 6729 Bachelor of Science in Actuarial Science
- 6224 Bachelor of Arts and Sciences (Applied AI)

Our teacher will deliver an admissions talk to your school students introducing our science programmes. The talk will cover:

- key features of our science programmes
- the curriculum and diverse learning opportunities for students
- the Major/ Minor system
- the admissions criteria



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