

## Campus Visit

In 2021-22, guided tour, talks and demonstrations are designed for campus visit

Earth Sciences	Guided tour of Stephen Hui Geological Museum
Physics	Science talk and demonstration on Elementary Particles and Superconductivity
Biological Sciences	Visit to the Hong Kong Biodiversity Museum
SWIMS	Visit to The Swire Institute of Marine Science (SWIMS) and Hong Kong's Marine Reserve
Chemistry	Science talk on understanding the Chirality in Chemistry

The 2021-22 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)
- 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



## Talk@MySchool Programme

### Topic Highlights

We offer 31 science talks in 2021-22 to be delivered online or at your school!



### APPEARANCE AND EVOLUTION OF LIFE

The World of Dinosaurs



### ECOLOGY, ENVIRONMENT AND PLANET EARTH

- Darwin in the City: Understanding Evolution in an Urban World
- Earthquakes and Tsunamis
- Noise Annoys: Understanding the Effects of Noise Pollution On Human and Non-human City Dwellers
- Revisiting Photosynthesis and Chloroplast Bioenergetics
- Scientific Health Risk Assessment of Persistent Organic Pollutants at Intensive Electronic Waste Recycling Sites
- The Anthropocene: Are We Causing the 6<sup>th</sup> Mass Extinction Event?
- The Earth is Round



### 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
- The Violent Universe



### MATHEMATICS, STATISTICS AND DECISION MAKING

- Interesting Things about Interest Rates
- Machine Learning
- Misuses of Statistics
- Role of Statistics in Health Sciences
- Statistics in Mahjong
- The Mathematics of Voting
- What The Man Who Knew Infinity Knew



### DEVELOPMENTS IN SCIENCE AND TECHNOLOGY

- Can Fantasy Become Reality
- How May Artificial Intelligence Change Our Society?
- Microbial Electron Transfer for a Sustainable and Renewable World



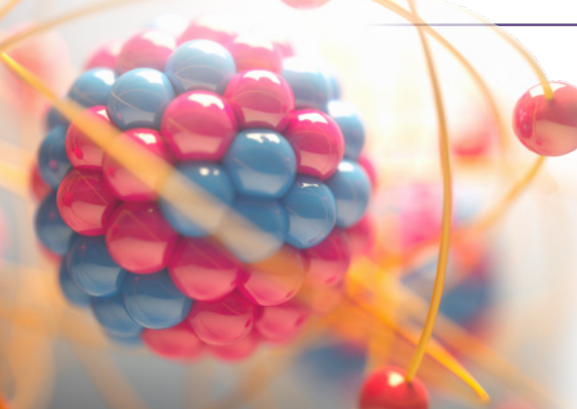
### FOOD SCIENCES AND HEALTH

Science of Food and Nutrition: What and Why we eat



### UNDERSTANDING THE PHYSICS OF NATURE

The World of Particles



### SCIENCE AND HUMANITY

- A Hungry World: Can Science and Technology Help?
- The Forgotten Member of the Science Trinity

## HKU Science Enrichment Programmes

for Secondary School Students 2021-22

NEW

### TouchStart Science

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

### Junior Science Institute (JSI)

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

### Talk@MySchool Programme

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

### Campus Visit

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

### Public Lecture Series

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

## Public Lecture Series



### Biological Sciences

- The Magic of Oysters and How They Help Humans



### Chemistry

- RNA-based Therapeutic Approaches



### Earth Sciences

- Understanding Climate Change — Reviewing the Past and Mapping Out Future Implications



### Mathematics

- Mathematics in Games



### Physics

- Free-electron Light Interaction: from Cherenkov to Zewail and more
- How Invisibility Cloaks Work

Stay tuned for lecture dates!



## JUNIOR SCIENCE INSTITUTE

**12** online and face-to-face workshops will be offered in first and second semesters of 2021-22



### PHYSICS

- How Does Various Kinds of Astronomical Telescopes Work?
- The Two-sphere Model of the Universe
- Exploring Wonders of Flatland in Physics
- Observational Astrophysics

### CHEMISTRY

Gases Everywhere



### BIOLOGICAL SCIENCES

- Evaluate Your Meat
- Check Your Health
- To See DNA Crossing and Exchanging

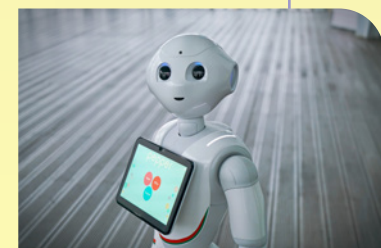
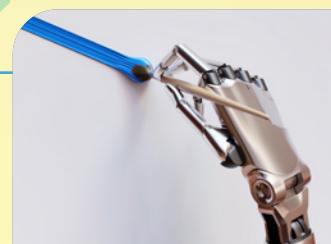
### EARTH SCIENCES

Plastic Pollution



### ARTIFICIAL INTELLIGENCE

Can Artificial Intelligence Be Creative?



### STATISTICS & ACTUARIAL SCIENCE

Introductory of Virtual Intelligent Robots



### MATHEMATICS

Probability in Daily Life

Details & application



<b>Date</b>	1st semester session: October 16, 2021 (Saturday) 2nd semester session: March 19, 2022 (Saturday)
<b>Commitment fee</b>	HK\$200 for face-to-face workshop (will be refunded upon successful completion of workshop)
<b>Application deadline</b>	1st semester session: October 10, 2021 (Sunday) 2nd semester session: January 31, 2022 (Monday)
<b>Eligibility</b>	Form 4 – 6 (secondary school students) Year 11–13 (international school students)

## 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

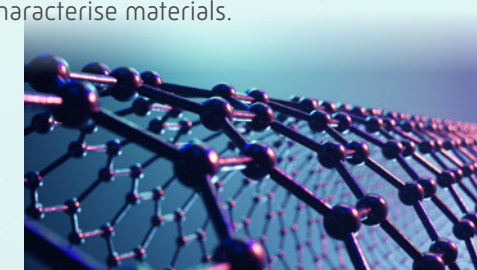


Admissions talk

## What's the Matter?



Everything in the physical world is made of some matter. Explore the multidisciplinary field of materials science through hands-on activities, lab visits and group projects, you will learn more about the structure-property relationships of materials and scientific methods to characterise materials.



## The Mathematical Foundations behind AI



Via this workshop, you will be exposed to some fundamental science behind artificial intelligence (AI), focusing on essential mathematical concepts such as computation, optimisation, and probability. Our academics specialising in computational mathematics, scientific computing, machine learning, etc., will share their insights on some classical and modern approaches related to AI.



## Young Scientist on Virtual Intelligent Robotics Design



Robotics plays an increasingly important role in our lives. You will be able to learn and design a virtual intelligent robot, and programme a virtual intelligent robot in a simulated virtual environment, via a series of lectures, hands-on programming and mathematical calculation, goal-setting activities, peer learnings and collaborations.



## Budgeting Carbon in Hong Kong



The workshop will focus on enhancing your understanding of the carbon cycle, addressing the human impacts on climate and possible consequences. Different approaches (natural, structural and behavioural approaches) will be highlighted as strategies for mitigation.

Stay tuned for more details about workshops and registration!



<b>Date</b>	Jul 13-15, 2022 (Wed-Fri)
<b>Time</b>	10am-5pm
<b>Format</b>	Face-to-face
<b>Programme fee</b>	HK\$ 2,500 / workshop
<b>Eligibility</b>	Form 4-6 (secondary school students); Year 11-13 (international school students)