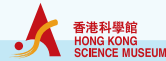


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香港特別行政區政府  
教育局  
The HKSAR Education Bureau



Sponsored by 贊助



# This Pale Blue Dot 暗淡藍星

4-17·3·2017

Hong Kong  
Science Museum  
香港科學館

Look again at that dot.  
That's here. That's home.  
That's us...

細心再看這個小點，  
就是這裡，就是我們的家，  
就是我們.....



Science Alive  
活的科學

HK SciFest  
香港科學節  
18.2-23.4.2017

Timetable 活動時間表

04.03 (Sat)	10:00 - 17:00	Family day Drop-in activities and science walk-about shows	科學家庭同樂日 攤位活動及現場科學表演	page 09
	11.30 - 12.30	Family workshop The final frontier: discovering the Earth	親子工作坊 探索地球新境界	page 17
	12.00 - 13.00	Science interactive lecture Dinosaur appearance: new discoveries	科學互動講座 與龍同行：世紀新發現	page 25
	14.00 - 15.00	Science drama show Who wants to be a superhero?	精裝科學劇 超級英雄大揭秘	page 11
	14.00 - 15.30	STEM workshop	STEM 工作坊	page 22
	16.00 - 17.00	Science drama show Who wants to be a superhero?	精裝科學劇 超級英雄大揭秘	page 11
	16.30 - 17.30	Family workshop Sweet science	親子工作坊 甜蜜蜜科學	page 18
05.03 (Sun)	10:00 - 17:00	Family day Drop-in activities and science walk-about shows	科學家庭同樂日 攤位活動及現場科學表演	page 09
	11.30 - 12.30	Family workshop The final frontier: discovering the Earth	親子工作坊 探索地球新境界	page 17
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06.03 (Mon)	10.00 - 11.30	Student workshop Where to build a windfarm	學生工作坊 風力發電場	page 33
	12.00 - 13.00	Science drama show Who wants to be a superhero?	精裝科學劇 超級英雄大揭秘	page 11
	12.00 - 13.30	Student workshop Where to build a windfarm	學生工作坊 風力發電場	page 33
	14.00 - 15.00	Science drama show Who wants to be a superhero?	精裝科學劇 超級英雄大揭秘	page 11
	14.30 - 17.00	Teacher development workshop Secondary school teachers	教師工作坊 中學教師	page 37
	16.00 - 17.00	Science drama show Who wants to be a superhero?	精裝科學劇 超級英雄大揭秘	page 11
07.03 (Tue)	10.00 - 12.30	Teacher development workshop Secondary school teachers	教師工作坊 中學教師	page 37
	14.30 - 17.00	Teacher development workshop Primary school teachers	教師工作坊 小學教師	page 37
08.03 (Wed)	10.00 - 12.30	Teacher development workshop Primary school teachers	教師工作坊 小學教師	page 37
	14.30 - 17.00	Teacher development workshop Secondary school teachers	教師工作坊 中學教師	page 37
	16.00 - 17.15	Science interactive lecture What exactly is climate change and why should we care?	科學互動講座 氣候變化的真相與重要性	page 26
10.03 (Fri)	14.00 - 15.15	Science interactive lecture What exactly is climate change and why should we care?	科學互動講座 氣候變化的真相與重要性	page 26
11.03 (Sat)	10:00 - 17:00	Family day Drop-in activities and science walk-about shows	科學家庭同樂日 攤位活動及現場科學表演	page 09
	11.00 - 12.00	Science drama show Incredible engineering and enlightening invention	精裝科學劇 不可思議的工程及科技發明	page 12
	13.00 - 14.00	Science drama show Adventure science	精裝科學劇 科學探險行	page 13
	13.00 - 14.00	Family workshop Pocket sized science	親子工作坊 家常科學知多少	page 19
	14.30 - 15.30	Experience sharing Amazon adventures with Anturus	經驗分享 勇闖亞馬遜	page 23
	15.00 - 16.30	Family workshop Let's rock!	親子工作坊 石頭記	page 20
	16.30 - 17.30	Science drama show Incredible engineering and enlightening invention	精裝科學劇 不可思議的工程及科技發明	page 12
	17.00 - 19.00	FameLab Hong Kong Grand Final	「科學一叮」香港區總決賽	page 30
12.03 (Sun)	10:00 - 17:00	Family day Drop-in activities and science walk-about shows	科學家庭同樂日 攤位活動及現場科學表演	page 09
	11.00 - 12.00	Science drama show Energy and the world we live in!	精裝科學劇 能源與世界	page 14
	12.30 - 13.30	Science drama show Energy and the world we live in!	精裝科學劇 能源與世界	page 14
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	15.30 - 16.30	Family workshop Pocket sized science	親子工作坊 家常科學知多少	page 19
	16.15 - 17.30	Science interactive lecture How to rebuild our world from scratch	科學互動講座 從無到有：重回蠻荒年代	page 27
13.03 (Mon)	12.00 - 13.00	Experience sharing Amazon adventures with Anturus	經驗分享 勇闖亞馬遜	page 23
	13.00 - 14.30	Student workshop The ocean's hidden creatures: the amazing world of plankton	學生工作坊 海洋中的隱形成員：浮游生物世界	page 34
	13.30 - 14.45	Science interactive lecture How to rebuild our world from scratch	科學互動講座 從無到有：重回蠻荒年代	page 27
	15.30 - 16.30	Science drama show Adventure science	精裝科學劇 科學探險行	page 13
	15.30 - 17.00	Student workshop The ocean's hidden creatures: the amazing world of plankton	學生工作坊 海洋中的隱形成員：浮游生物世界	page 34
	17.00 - 18.00	Experience sharing Amazon adventures with Anturus	經驗分享 勇闖亞馬遜	page 23
14.03 (Tue)	16.00 - 17.15	Science interactive lecture The future of genetic testing	科學互動講座 基因檢測的前景	page 28
15.03 (Wed)	10.45 - 12.00	Science interactive lecture Reproduction without sex – what does technology have to offer?	科學互動講座 新技術與無性繁殖	page 29
17.03 (Fri)	16.30 - 18.00	Student debate	學生辯論	page 31

British Council ■英國文化協會  
3 Supreme Court Road, Admiralty, Hong Kong ■香港金鐘法院道 3 號  
Tel +852 2913 5100 ■ Fax +852 2913 5166 ■ www.britishcouncil.hk

For programme details ■活動詳情：  
[http:// www.britishcouncil.hk/en/events/science-alive-2017](http://www.britishcouncil.hk/en/events/science-alive-2017)  
For details and enquiries, please email ■有關詳情及查詢，請電郵至：  
[science.alive@britishcouncil.org.hk](mailto:science.alive@britishcouncil.org.hk)



To protect our environment, FSC™ paper is used for this booklet  
為保護我們的環境，本手冊一律採用FSC™環保紙

**‘Look again at that dot. That’s here. That’s home. That’s us...the Earth is the only world known so far to harbour life. There is nowhere else, at least in the near future, to which our species could migrate...to me, it underscores our responsibility to deal more kindly with one another, and to preserve and cherish the pale blue dot, the only home we’ve ever known.’**

「細心再看這個小點，就是這裡，就是我們的家，就是我們.....地球是至今所知唯一能孕育生命的星體，起碼在短期內，並無別的星球可讓人類移居.....對我來說，這提醒我們必須善待別人，珍惜與保護地球，因為它是我們唯一的家！」

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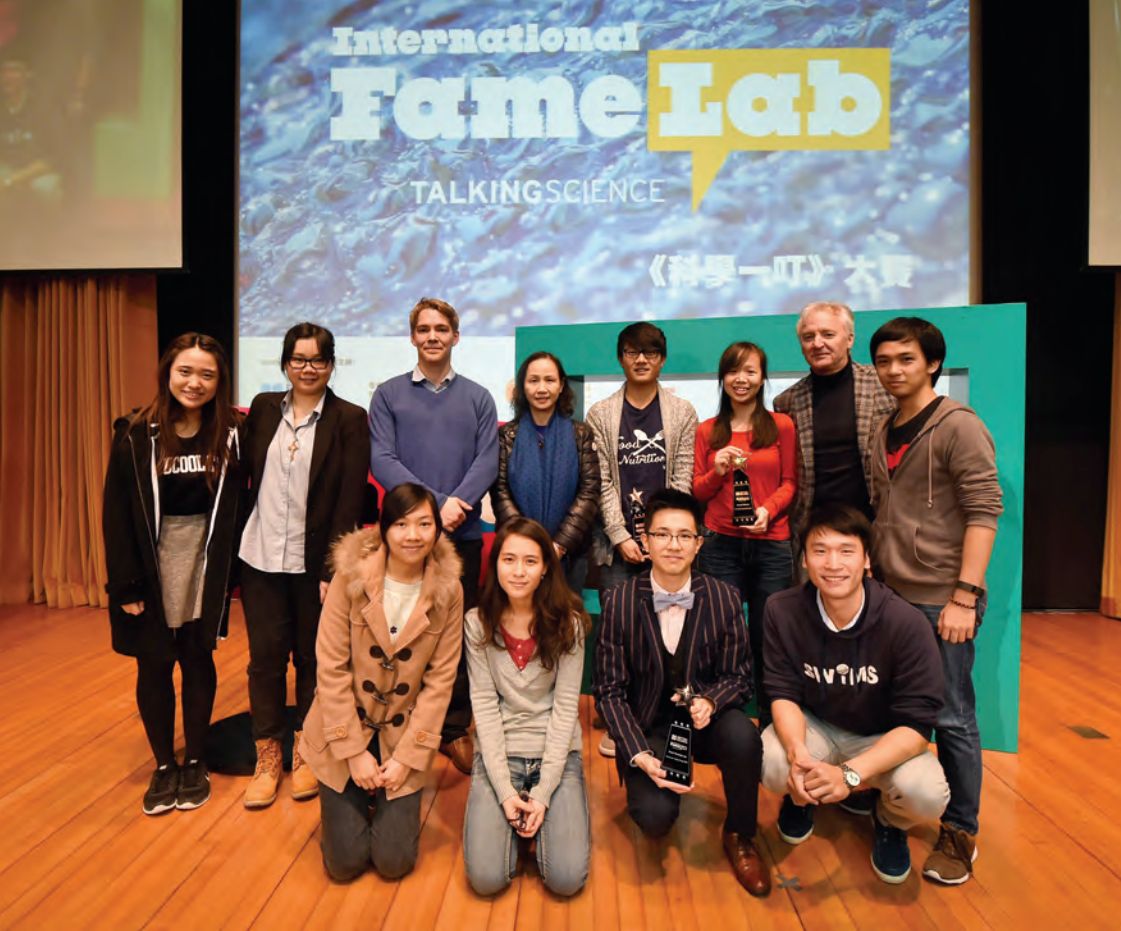
**Carl Sagan, Pale Blue Dot, 1994.**

卡爾薩根《暗淡藍點》1994

The birth of the global environmental movement, and with it environmental education, started with the publication of ‘Silent Spring’ by Rachel Carson in 1962. Eighteen years later, the world was given a unique glimpse of the Earth from space through a photo that was almost never taken. A photo that scientist Carl Sagan insisted be taken, one that would endure to be a symbol of the Earth’s fragility and vulnerability. This photo, or the anticipation of seeing it first-hand, may have been on the mind of UK astronaut Tim Peake as he ascended into space in 2015. Fast forward to present day: the Earth is still under threat, from its water to its forests, and from its air to its biodiversity. It is us humans, living and depending on the Earth, who are the reasons why it is under threat. This year, Science Alive will highlight the importance of appreciating, understanding and acting to preserve the beauty and complexity of the Earth, this ‘pale blue dot.’

要追溯全球環保運動及教育的源頭，相信可從美國海洋生物學家雷切爾卡森於 1962 年出版的《寂靜的春天》一書開始。18 年後，科學家卡爾薩根堅持要從外太空拍攝一幅以地球為主的照片，從此，這照片上那一點暗淡的藍光，成為了地球脆弱與微小的象徵。當英國太空人提姆皮克於 2015 年執行升空任務時，或許仍帶著對這張劃時代照片的記憶，希望自己能親身目睹這難忘一刻。時光飛逝，再看今時今日的地球，不論是海洋、森林、空氣以至生物多樣性，無一不受威脅，諷刺的是，這一切的罪魁禍首，是仰賴大地而生的人類。今年，「活的科學」會從欣賞、理解和行動三方面來帶出保護地球的重要性，期望讓這「暗淡藍點」永遠美麗和充滿生機。





## An exciting annual science event - HK SciFest 2017 is coming again!

It has been the fourth year for the Hong Kong Science Museum hosting the HK SciFest since 2014. Through this fabulous large-scale event, we aim to collaborate with scientific institutes and organisations to provide interesting scientific activities to elevate the public awareness and interest in science and technology.

Scientific researches not only stem from human curiosity about the nature, but also contribute to help solving problems as well as improving our daily life. On top of the broad science topics covered in HK SciFest as it has before, we have also organised a series of “Medicine and Health” thematic programmes this year which help to understand the scientific concepts behind western and Chinese medicines, and recognise the contribution of medical research and disease treatments to our health.

We are grateful to have great support and enthusiastic participation from our partners. They have developed unique science programmes specially to enrich the content of HK SciFest and further meet the needs of the public in pursuing scientific knowledge. HK SciFest 2017 offers more than 165 scientific activities, including exhibitions, visits and guided tours, science

workshops, family days, science drama shows, fun experiment classes, science lectures and science competitions. Surely, you would be able to find some programmes that you are interested in.

Special programmes include the Fun Science Carnival and the Science Communication Week that mark the beginning of the SciFest, and the Science Alive series of education activities. Experts on science communication from the UK and USA have been invited to conduct science performances for the public and share their experience with local science educators in workshops. Apart from these, there are inter-disciplinary programmes like the workshop combining traditional calligraphy with modern digital technology, conference and exhibition on STEM education, and HK-Mainland science exchange camps, providing new dimensions to the festival. To encourage deepening the learning, the Lecture Award Scheme is launched to promote participation in lectures where the public can meet the scientists and understand the latest development.

Don't miss the chance. Come and join us in the HK SciFest 2017. Let's explore, discover and find fun in science!





## 一年一度的科學盛事 「2017 香港科學節」又來了！

自 2014 年開始，香港科學館舉辦第一屆「香港科學節」，至今已踏入第四年。透過這大型活動，我們聯合各個科學機構和組織提供有趣的科學活動，以提高公眾對科學與科技的關注和興趣。

科學研究源於人類對大自然的好奇，更連繫着我們生活的每一點滴，有助改善生活質素。一如以往，香港科學節會涵蓋各個科學領域，透過林林總總的活動讓大家了解各門科學；而今年我們亦誠意為大家舉辦以「醫學與健康」為題的特色活動，希望能讓大家認識到中西醫學的科學理念，理解醫學研究與疾病治療對維持人類身體健康所作出的貢獻。

我們非常感謝各個合作伙伴的鼎力支持。他們為大家精心設計了別具特色的科學活動，使今年科學節的內容更豐富、更充實、更切合公眾對追求科學知識的不同需要。今年的科學節共提供逾 165 項科學活動，包括展覽、參觀及導賞、科學工作坊、家庭同樂日、科學劇場、趣味實驗班、專題講座和科學比賽等，相信大家必定能在科學節期間找到感興趣的活動。

特別活動包括開幕期間的「玩轉科學嘉年華」和「科學傳意週」，與教育活動系列「活的科學」。當中有從英美應邀而來的科學傳意大師，為大家作科學表演及主持工作坊，從中與本地科普教育工作者分享從事科學傳意和教育的心得。此外，今年的活動更包括傳統書法與現代數碼技術結合的工作坊、有關 STEM 教育的會議和成果展，及內地科學交流營等，讓科學節的活動更多元化。今年新設的「講座獎勵計劃」，鼓勵大家多參與科學講座，與專家講者交流，深入地了解各門科學的知識和最新發展。

機不可失，大家快來參加「2017 香港科學節」，一起探索、發掘和尋找科學的樂趣！

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Science Alive is jointly organised by the British Council, the Hong Kong Science Museum, the Education Bureau and the Hong Kong Education City Limited, and sponsored by the Croucher Foundation. Every year for the past 24 years, Science Alive has invited leading UK academics and communicators in various fields of science to engage Hong Kong's students, teachers and the public in activities that promote a wider understanding of science.

承蒙裘槎基金會慷慨贊助，英國文化協會、香港科學館、教育局及香港教育城有限公司將於 2017 年再次合辦「活的科學」。過去 24 年來，「活的科學」每年均邀請英國科學界的菁英學者及科普工作者來港，為學界和市民主持形形色色的有趣活動，藉此揭開科學的神秘面紗，增加公眾對科學的認識。

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FameLab Hong Kong Grand Final  
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Outdoor environmental learning  
考察之旅



## Family days – drop-in activities and science walk-about shows

### 科學家庭同樂日 – 攤位活動及現場科學表演

During the weekends of Science Alive, the outreach teams from Newcastle University and the University of Glasgow, Dr Michael Pittman, a dinosaur paleontologist from the University of Hong Kong and Huw James, a scientist and adventurer, will be joining us to deliver a variety of drop-in activities and science walk-about shows. Come join us to explore a range of fun and interactive science activities on these themes: the Earth and environment under the glaciers, bringing dinosaurs back to life, introducing microbes, exploring surface tension. Families will also get an opportunity to participate in a range of activities and to experience the fun of STEM education.

Previous FameLab Hong Kong finalists will also be joining the teams to deliver the shows and activities. Additionally, walk-about magic shows and various science tricks will be performed during the family days.

在「活的科學」期間的兩個週末，紐卡素大學和格拉斯哥大學的科學外展隊，將聯同香港大學恐龍古生物學家文嘉祺博士及科學家兼探險家 Huw James，為大家呈獻一系列趣味十足的互動攤位活動及現場科學表演，包括：勇闖冰河下的地球；讓恐龍復生；認識微生物世界；探索表面張力等等。家長亦可藉此機會，與子女一同參與各式活動，一起認識 STEM 教育。

歷屆《科學一叮》香港區決賽的入圍者亦會現身協助各項活動，加上目不暇給的魔術表演和林林總總的科學小把戲，定必可激發小朋友對科學的興趣！

Date & Time 日期和時間

04 – 05.03 (Sat & Sun) ■ 10.00 – 17.00

#### Facilitator 主持

Outreach team from Newcastle University and Dr Michael Pittman from the University of Hong Kong  
紐卡素大學科學外展隊及香港大學文嘉祺博士

#### Venue 地點

Lower Piazza, Hong Kong Science Museum  
香港科學館低層廣場

11 – 12.03 (Sat & Sun) ■ 10.00 – 17.00

#### Facilitator 主持

Outreach team from the University of Glasgow and Huw James from Anturus  
格拉斯哥大學科學外展隊及 Anturus 的 Huw James

#### Venue 地點

Lower Piazza, Hong Kong Science Museum  
香港科學館低層廣場



## Science drama shows

### 精裝科學劇

- Conducted in English (with Cantonese interpretation)
- Schools can register as audience members online through the Training Calendar on the Education Bureau website: <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm>
- The general public can register as audience members online through the British Council website: <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
- Seats are on a first come, first served basis
- A portion of the seats will be reserved for walk-ins

- 以英語進行（將提供粵語傳譯）
- 學校可透過教育局網頁 <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm> 上的「培訓行事曆」報名參加
- 公眾可於英國文化協會網頁 <https://www.britishcouncil.hk/en/programmes/education/science/science-alive> 登記進場
- 座位有限，先到先得
- 大會將預留部份座位予即場報名的觀眾





## Who wants to be a superhero?

Have you ever wished you could fly like a superhero? Or have the power of invisibility? Join us for the 'Who wants to be a superhero' show as we discover how real life scientists and engineers are turning the powers of superheroes into reality. Watch as we send a message inside a laser beam, and help us make something fly live on stage! This exciting show demonstrates that, because of science and engineering, anyone can be a superhero.

- Suitable for primary (P1-P6) students, families and the general public
- [Curriculum links](#): General Studies curriculum P1-P6: Strand 3 Science and Technology in Everyday Life

## 超級英雄大揭秘

是否幻想過自己能在天際任意飛翔或擁有神奇的隱形能力？感謝科學家和工程師的努力，這些超能力不再是超級英雄的專利！平凡如你和我，也可以一嚐當超級英雄的滋味！你可一睹怎樣利用激光束發出隱形訊息，甚至可使物件在舞台上飛揚！這項精彩萬分的表演，將揭示科學及工程學的偉大成就，使普通人也可一躍成為超級英雄！

- 適合小一至小六學生、家庭及公眾欣賞
- [聯繫課程](#)：小一至小六「常識科」課程：學習範疇三「日常生活中的科學與科技」

### Date & Time 日期和時間

04.03 (Sat) ■ 14.00 – 15.00 ■ 16.00 – 17.00

05.03 (Sun) ■ 14.00 – 15.00 ■ 16.00 – 17.00

06.03 (Sun) ■ 12.00 – 13.00 ■ 14.00 – 15.00  
■ 16.00 – 17.00

### Performer 演出者

Science made simple

### Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

## Incredible engineering and enlightening invention

We will take our audience on a journey of discovery and adventure as we look at how science and engineering have changed the way we live. Comparing new and old technology, and what it takes to be the next Albert Einstein, Marie Curie or even Sir Tim Berners-Lee, we will look at how individuals have shaped our world and the journeys which they took to get there.

- Suitable for secondary (S1-S3) students, families and the general public
- [Curriculum links](#): Science curriculum S1-S3: Unit 5 Energy, Unit 8 Making Use of Electricity and Unit 13 From Atoms to Materials

## 不可思議的工程及科技發明

我們將會帶領觀眾開展探奇之旅，看看科學和工程怎樣改變了人類的生活方式！究竟在甚麼環境裡，才可培育出新一代愛因斯坦、居禮夫人或蒂姆伯納斯李爵士？在比照新舊科技之餘，我們會重溫一些傑出科學家如何奠定現代社會的面貌，細味他們的成功故事。

- 適合中一至中三學生、家庭及公眾欣賞
- [聯繫課程](#)：中一至中三「科學科」課程：單元五「能量」、單元八「電的使用」、單元十三「從原子到材料」



Date & Time 日期和時間

11.03 (Sat) ■ 11.00 – 12.00  
■ 16.30 – 17.30

Performer 演出者

Ministry of Science

Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

## Adventure science

An interactive adventure show that explores the science and technology behind the Anturus Expeditions. In this hour-long show, we take a look at the most important idea you need in order to survive an adventure in the outdoors. We will also look at the sustainability advantages of eating bugs and the nutritional values needed for survival, and how to make sure you are prepared for adventure! Field scientists are some of the best adventurers, and after this engaging science show perhaps you will want to be a science adventurer too!

- Suitable for primary (P1-P6) and secondary (S1-S3) students, families and the general public
- **Curriculum links:** General Studies curriculum P1-P6: Strand 2 People and Environment;  
Science curriculum S1-S3: Unit 2 Water and Unit 3 Looking at Living Things

## 科學探險行

這個互動科學劇會探討 Anturus 探險計劃的科學理論和科技知識。在長達一小時的表演裡，我們會介紹在野外求生和探險所需的主要條件、從可持續性和營養價值的角度闡述以昆蟲作食糧的好處、以及如何為出發探險作好準備！自然科學家往往是最優秀的探險家，看畢這引人入勝的科學劇後，你或許也會立志加入科學探險的行列！

- 適合小一至小六及中一至中三學生、家庭及公眾欣賞
- **聯繫課程：**小一至小六「常識科」課程：學習範疇二「人與環境」；  
中一至中三「科學科」課程：單元二「水」、單元三「觀察生物」



Date & Time 日期和時間

11.03 (Sat) ■ 13.00 – 14.00

12.03 (Sun) ■ 14.30 – 15.30

13.03 (Mon) ■ 15.30 – 16.30

Performer 演出者

Huw James, Anturus

Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

## Energy and the world we live in!

We will take you on an inspiring journey of science, engineering and invention as we look at those individuals who have shaped the modern world in which we live. We will be looking at the different types of energy and how they feature in our everyday lives and how some of our most important discoveries in the last 50 years were made using only household items.

- Suitable for primary (P1-P6) students, families and the general public
- [Curriculum links](#): General Studies curriculum P1-P6: Strand 3 Science and Technology in Everyday Life

## 能源與世界

我們會帶領觀眾踏上啟迪人心的科學、工程與發明之旅，認識非凡的科學人物，也會探究不同類型的能源如何影響人類的日常生活，並看看科學家在過去半世紀怎樣利用簡單的家居物品，便能製作出一些重要的發明。

- 適合小一至小六學生、家庭及公眾欣賞
- [聯繫課程](#)：小一至小六「常識科」課程：學習範疇三「日常生活中的科學與科技」

Date & Time 日期和時間

12.03 (Sun) ■ 11.00 – 12.00 ■ 12.30 – 13.30

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[Performer](#) 演出者

Ministry of Science

[Venue](#) 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

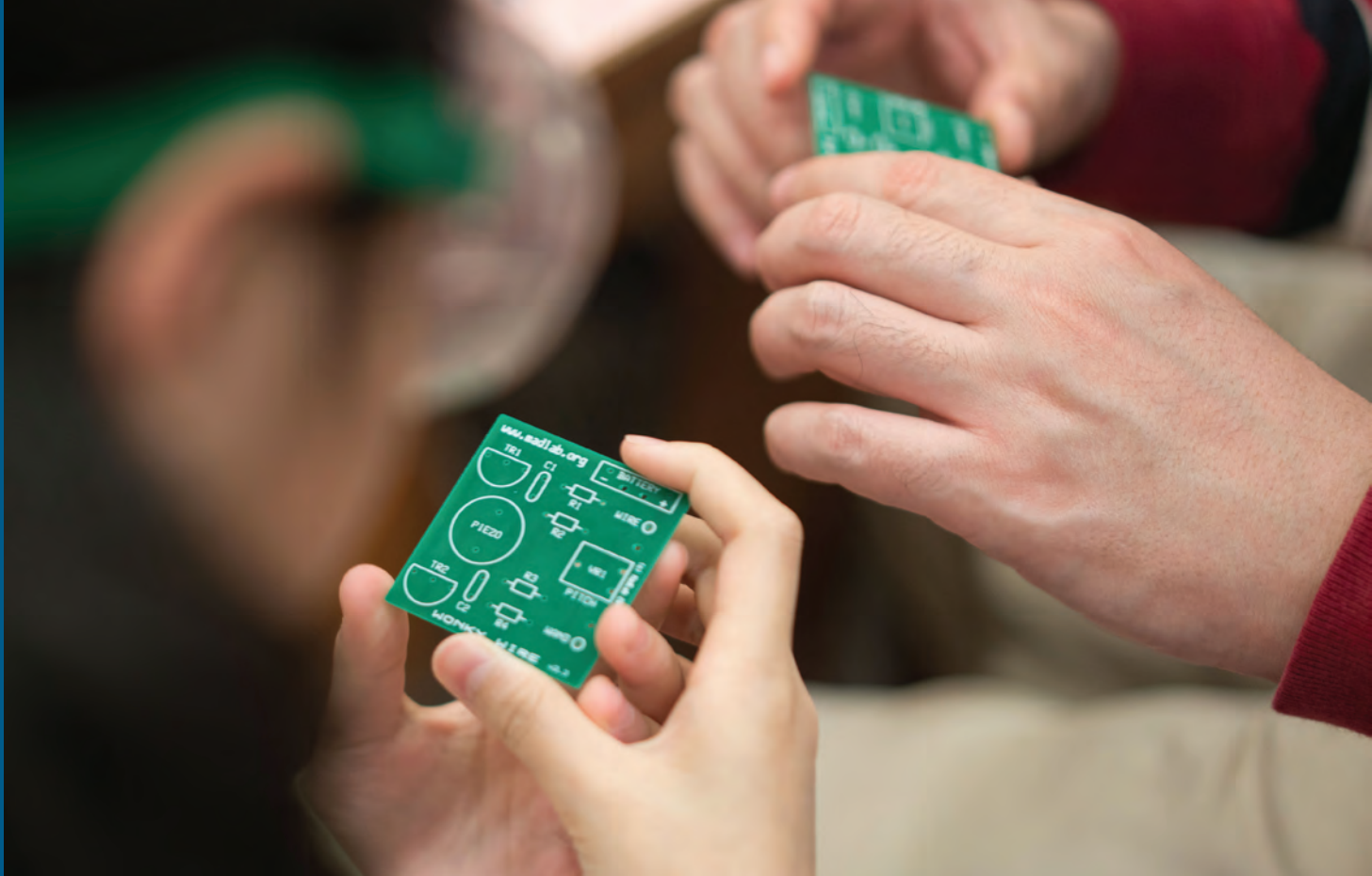




## Family workshops

### 親子工作坊

- Conducted in English (with Cantonese interpretation)
  - Each child must be accompanied by only one adult to participate the workshop
  - Each session has 40 seats for 20 children and 20 adults
  - Registration starts one hour before the workshop outside the laboratory on a first come, first served basis
- 
- 以英語進行（將提供粵語傳譯）
  - 每名小朋友須由一位家長陪同參加
  - 每節工作坊設有 40 個名額，小朋友與家長各佔一半
  - 工作坊在開始前一小時於實驗室外接受報名，先到先得



## The final frontier: discovering the Earth

Space exploration has helped us learn a lot about the planets in our solar system, especially our own. What can we learn about meteorites hitting the Earth? How can we use infrared light to help us study the universe, and what do you look like through an infrared camera? Find out what a real dinosaur fossil feels like, as well as ways we can use space travel and technology to find out more about our little corner of space.

- Suitable for primary (P4-P6) students and parents
- [Curriculum links](#): General Studies curriculum P1-P6: Strand 2 People and Environment

## 探索地球新境界

太空探索使我們大大增進了對太陽系行星的認識——尤其是我們身處的地球。隕石撞地球究竟是怎樣的一回事？紅外線如何探測宇宙？在紅外線攝影機的鏡頭下，人類又會變成甚麼樣子？真正的恐龍化石又是怎樣？一起來參與這個旅程進一步認識地球吧！

- 適合小四至小六學生及家長
- [聯繫課程](#)：小一至小六「常識科」課程：學習範疇二「人與環境」

Date & Time 日期和時間

04.03 (Sat) ■ 11.30 – 12.30

05.03 (Sun) ■ 11.30 – 12.30

Facilitator 主持

Science made simple

Venue 地點

Laboratory, Hong Kong Science Museum  
香港科學館實驗室

## Sweet science

This workshop is all about the fascinating and delicious science of confectionary. You will be able to act like Willy Wonka and create your own sweets while learning about the scientific reactions that make honeycomb, the chemistry of sherbet and how to make express ice cream. You will also find out why we all love sugar so much!

**Important:** this workshop does involve making edible products. Ingredients include dairy products and sugar. Please let us know at the registration point if you have any dietary issues.

- Suitable for primary (P4-P6) students and parents
- **Curriculum links:** General Studies curriculum P1-P6: Strand 3 Science and Technology in Everyday Life

## 甜蜜蜜科學

甜吃為何令人垂涎三尺？這個工作坊將為你解開謎團！你將可仿做小說《朱古力掌門人》威利旺卡自製糖果，同時聆聽我們解構製作蜂巢、雪葩和雪糕的原理與方法。

**重要提示：**此工作坊涉及食品製作，並會使用奶類產品及糖作原料。如有任何飲食問題，請於報名時通知我們。

- 適合小四至小六學生及家長
- **聯繫課程：**小一至小六「常識科」課程：學習範疇三「日常生活中的科學與科技」

Date & Time 日期和時間

04.03 (Sat) ■ 16.30 – 17.30

05.03 (Sun) ■ 16.30 – 17.30

### Facilitator 主持

Outreach team from Newcastle University  
紐卡素大學科學外展隊

### Venue 地點

Laboratory, Hong Kong Science Museum  
香港科學館實驗室



## Pocket sized science

This is an explosive experience which includes a fantastic mini-show and the added benefit of hands-on workshops that take everyone who attends on an inspiring journey. We will be showing you how we all have the ability to shape the future of our world and could be the next big scientist, inventor or engineer! Join us! We will look at energy changes and transfers, motion and forces, chemical reactions, combustion, transfer of electrons, friction and much, much more!

- Suitable for primary (P4-P6) students and parents
- **Curriculum links:** General Studies curriculum P1-P6: Strand 3 Science and Technology in Everyday Life

## 家常科學知多少

這個令人目不暇給的小型表演暨工作坊，將帶領各位踏上豁然開朗的科學之旅，感受無比興奮！我們會讓你知道，人人都有改變世界、成為偉大科學家、發明家或工程師的潛能！一起探索能量如何轉變和傳輸、力與運動的關係，以至化學反應、燃燒、電子轉移和摩擦等。

- 適合小四至小六學生及家長
- **聯繫課程：**小一至小六「常識科」課程：學習範疇三「日常生活中的科學與科技」

Date & Time 日期和時間

11.03 (Sat) ■ 13.00 – 14.00

12.03 (Sun) ■ 15.30 – 16.30

Facilitator 主持

Ministry of Science

Venue 地點

Laboratory, Hong Kong Science Museum  
香港科學館實驗室

## Let's rock!

Rocks, made of various naturally occurring minerals, form the Earth's outermost solid layer on which we all live. Studying the properties of the rocks and their formation history helps us to understand our planet. During this workshop, we will carry out interactive demonstrations and experiments on petrology, sedimentology and plate tectonics so participants can study fossils and natural resources formation in the Earth's crust. Children will gain hands-on experience in being 'little geologists' through these activities with their families and understand the physical nature of Mother Earth.

- Suitable for primary (P4-P6) students and parents
- [Curriculum links](#): General Studies curriculum P1-P6: Strand 3 Science and Technology in Everyday Life

## 石頭記

蘊含各種天然礦物的岩石，不但是地球最外圍的固體層，更是我們居住的地方。研究岩石的特性及其形成過程，可增進對地球的了解。在這個工作坊裡，我們會進行有關岩石學、沉積學及板塊構造的互動示範和實驗，並研究化石和天然資源如何在地殼中形成。在家長陪同下，孩子將化身小小地質學家，從實踐中認識處身的地球的物理特質。

- 適合小四至小六學生及家長
- [聯繫課程](#)：小一至小六「常識科」課程：學習範疇三「日常生活中的科學與科技」

Date & Time 日期和時間

11.03 (Sat) ■ 15.00 – 16.30

12.03 (Sun) ■ 13.00 – 14.30

## Facilitator 主持

Jackie Chu, ProjecTerra  
地球知源總監及地質師朱晉德

## Venue 地點

Laboratory, Hong Kong Science Museum  
香港科學館實驗室



Family workshops 親子工作坊

# STEM workshops

## STEM 工作坊

- Conducted in English (with Cantonese interpretation)
- Each child must be accompanied by only one adult to participate the workshop
- Each session has 40 seats for 20 children and 20 adults
- Registration starts one hour before the workshop outside the laboratory on a first come, first served basis

- 以英語進行（將提供粵語傳譯）
- 每名小朋友須由一位家長陪同參加
- 每節工作坊設有 40 個名額，小朋友與家長各佔一半
- 工作坊在開始前一小時於實驗室外接受報名，先到先得

This workshop challenges the ideas and stereotypes that people have about science and scientists with a whole host of fun and interactive Street Science experiments. The hands-on demonstrations will inspire and enthuse everybody in the group. By the end of the session we can guarantee that everyone will be excited about STEM, and will actually be able to do some Street Science yourself!

STEM stands for Science, Technology, Engineering and Mathematics.

- Suitable for primary (P4-P6) students and parents
- [Curriculum links](#): Science, Technology, Engineering and Mathematics

這個工作坊會透過一系列有趣的互動街頭科學實驗，顛覆一般人對科學和科學家的典型觀念和認知。精彩的即場示範不但趣味盎然，更可啟迪參加者的創意思維，燃起大家對科學、科技、工程及數學學科的熱情和興趣，甚至變身街頭科學家，在日常生活中實踐科學原理！

STEM 是科學、科技、工程和數學四門學科的簡稱。

- 適合小四至小六學生與家長一起參加
- [聯繫課程](#)：科學、科技、工程、數學

Date & Time 日期和時間

04.03 (Sat) ■ 14.00 – 15.30

05.03 (Sun) ■ 14.00 – 15.30

Facilitator 主持

Outreach team from Newcastle University  
紐卡素大學科學外展隊

Venue 地點

Laboratory, Hong Kong Science Museum  
香港科學館實驗室



## Experience sharing

### 經驗分享

- Conducted in English
- Schools can register as audience members online through the Training Calendar on the Education Bureau website: <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm>
- The general public can register as audience members online through the British Council website: <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
- Seats are on a first come, first served basis
- A portion of the seats will be reserved for walk-ins

- 以英語進行
- 學校可透過教育局網頁 <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm> 上的「培訓行事曆」報名參加
- 公眾可於英國文化協會網頁 <https://www.britishcouncil.hk/en/programmes/education/science/science-alive> 登記進場
- 座位有限，先到先得
- 大會將預留部份座位予即場報名的觀眾

## Amazon adventures with Anturus

Join us on an Amazon adventure! With scientist and adventurer Huw James, find out what it is like to live in the jungle with all sorts of plants and animals. See what science is being done to save these fragile environments and what you can do to help. Having spent part of 2016 around the world's most endangered creatures, hear all about why Huw thinks that these habitats can be brought back from the brink. And maybe one day, you will get to have your very own Amazon adventure!

- Suitable for primary (P4-P6) and secondary (S1-S3) students, families and the general public
- **Curriculum links:** General Studies curriculum P1-P6: Strand 2 People and Environment; Science curriculum S1-S3: Unit 3 Looking at Living Things

## 勇闖亞馬遜

我們誠邀你加入亞馬遜歷奇之旅！在動植物繁衍的森林裡居住，究竟是甚麼滋味？科學家兼探險家 Huw James 將會分享其深入亞馬遜的不平凡經歷，並分析怎樣利用科學拯救這片脆弱的生態環境——保護牠們的棲息地仍然為時未晚！一起加入今次的歷奇之旅！或許有一天，你會真的展開自己的亞馬遜探險之行！

- 適合小四至小六及中一至中三學生、家庭及公眾欣賞
- **聯繫課程：**小一至小六「常識科」課程：學習範疇二「人與環境」；中一至中三「科學科」課程：單元三「觀察生物」

Date & Time 日期和時間

11.03 (Sat) ■ 14.30 – 15.30

13.03 (Mon) ■ 12.00 – 13.00

■ 17.00 – 18.00

Speaker 講者

Huw James, Anturus

Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

## Science interactive lectures

### 科學互動講座

- Conducted in English
  - Schools can register as audience members online through the Training Calendar on the Education Bureau website: <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm> 上的「培訓行事曆」報名參加
  - The general public can register as audience members online through the British Council website: <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
  - Seats are on a first come, first served basis
  - A portion of the seats will be reserved for walk-ins
- 以英語進行
  - 學校可透過教育局網頁 <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm> 上的「培訓行事曆」報名參加
  - 公眾可於英國文化協會網頁 <https://www.britishcouncil.hk/en/programmes/education/science/science-alive> 登記進場
  - 座位有限，先到先得
  - 大會將預留部份座位予即場報名的觀眾



## Dinosaur appearance: new discoveries

Dinosaurs are amazing animals and they are still alive today. Really! We just call them birds! We usually find dinosaurs as fossil bones and these tell us a lot about their biology, including their appearance, physiology and habits. However, sometimes we are lucky enough to find dinosaur fossils preserving the soft parts of dinosaurs, including skin, feathers and even their organs, which gives us even more information. Join dinosaur paleontologist Dr Michael Pittman from the University of Hong Kong to find out how he uses lasers to find new information about dinosaur soft parts. Find out about the earliest feathered dinosaurs and what their soft parts tell us about birds. Get ready to travel back in time to the world of dinosaurs!

- Suitable for secondary (S1-S3) students and senior secondary (S4-S6) students, families, teachers and the general public
- [Curriculum links](#): Science curriculum S1-S3:  
Unit 3 Looking at Living Things;  
Biology curriculum S4-S6:  
Part 2 Genetics and Evolution (Compulsory Part)

## 與龍同行：世紀新發現

恐龍是非常神奇的動物，而且還活到今天！我們今天稱呼牠們為雀鳥！歷來出土的恐龍化石中以骸骨為主，這讓人類得以從中窺探其外貌和生活方式。幸運的是，我們有時能找到帶有皮膚、羽毛、甚至內臟等軟組織的恐龍化石，令我們得以從另一角度了解牠們。香港大學的古生物學家文嘉棋博士，將與大家分享使用激光技術尋找有關恐龍軟組織的新資訊。立即做好進入時光隧道的準備，重返恐龍世界！

- 適合中一至中六學生、家庭、老師及公眾參與
- [聯繫課程](#)：中一至中三「科學科」課程：  
單元三「觀察生物」；  
中四至中六「生物科」課程：  
單元二「遺傳與進化」（必修部份）

Date & Time 日期和時間

04.03 (Sat) ■ 12.00 – 13.00

05.03 (Sun) ■ 12.00 – 13.00

### Speaker 講者

Dr Michael Pittman, the University of Hong Kong  
香港大學文嘉棋博士

### Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

## What exactly is climate change and why should we care?

The climate is changing and it is rapidly transforming the world around us. This interactive lecture takes us on a journey through time from ice ages to ancient civilisations, through rapid industrialisation and to the present day to see how and why the Earth's climate has changed throughout history. Then, in the context of the current human-induced warming, David Saddington shows us how current climate change is so much more than a scientific process. What exactly is climate change and why should we care?

- Suitable for senior secondary (S4-S6) students, teachers and the general public
- [Curriculum links](#): Biology curriculum S4-S6: Part 3 Organisms and Environment (Compulsory Part) and Part 6 Applied Ecology (Elective Part); Geography curriculum S4-S6: Part 3 Confronting Global Challenges (Compulsory Part)

## 氣候變化的真相與重要性

氣候變化正急速地改變我們身處的世界。這個科學互動講座會帶領觀眾穿梭時空，重溫地球從冰河世紀、古文明時期、工業革命到現今的漫長歷程，探討氣候在歷史長河中持續變化的情況和原因。講者 David Saddington 亦會詳細解釋為何當前的氣候變化絕非自然的科學現象。到底氣候變化是甚麼？為何我們必須關心？講座屆時將一一道來！

- 適合中四至中六學生、老師及公眾參與
- [聯繫課程](#)：中四至中六「生物科」課程：單元三「生物與環境」（必修部份）、單元六「應用生態學」（選修部份）；中四至中六「地理科」課程：單元三「正視全球性挑戰」（必修部份）

Date & Time 日期和時間

08.03 (Wed) ■ 16.00 – 17.15

10.03 (Fri) ■ 14.00 – 15.15

### Speaker 講者

David Saddington, climate change communicator  
氣候變化專家 David Saddington

### Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳



## How to rebuild our world from scratch

Maybe it was an asteroid impact, a nuclear war, or a viral pandemic. Whatever the cause, the world as we know it has ended and you and your community of survivors must start again. What key knowledge would you need to not only survive in the immediate post-apocalyptic aftermath, but avert another Dark Ages and accelerate the rebooting of civilisation from scratch? Living in the modern world, we have become disconnected from the basic processes that support our lives, as well as the beautiful fundamentals of science that enable you to relearn things for yourself. The knowledge is a grand thought experiment on the behind-the-scenes fundamentals of how our world works, and what drove the progression of civilisation over the centuries.

- Suitable for senior secondary (S4-S6) students, teachers and the general public
- [Curriculum links](#): Chemistry curriculum S4-S6: Part 1 Planet Earth (Compulsory Part); Geography curriculum S4-S6: Part 3 Confronting Global Challenges (Compulsory Part)

## 從無到有：重回蠻荒年代

也許受行星撞擊，也許是核戰，也許發生致命瘟疫……不論是甚麼原因，世界末日來臨了！你和其他倖存者必須從頭開始！要在末日浩劫後生存？要防止黑暗年代再臨？要從廢墟中加快重拾文明？究竟需要哪些知識我們才能夠做得到？身處現代世界，我們與支撐生命的基本技能越走越遠，亦逐漸遺忘可以讓自己重新認識世界的基本科學知識。就讓我們重回蠻荒年代，從無到有，再次了解支撐世界運作的基本原理，細看千百年來推動文明發展的大事件！

- 適合中四至中六學生、老師及公眾參與
- [聯繫課程](#)：中四至中六「化學科」課程：單元一「地球」（必修部份）；中四至中六「地理科」課程：單元三「正視全球性挑戰」（必修部份）

Date & Time 日期和時間

12.03 (Sun) ■ 16.15 – 17.30

13.03 (Mon) ■ 13.30 – 14.45

### Speaker 講者

Professor Lewis Dartnell, University of Westminster  
威斯敏斯特大學 Lewis Dartnell 教授

### Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

## The future of genetic testing

Famous scientists Watson and Crick worked out the structure of DNA in the 1950s. Technology in genetics now allows us to sequence or map out the full human genome. Watson had his genome sequenced in 2007 at a cost of US\$1.5 million. Nowadays, the cost of sequencing is now under US\$1,000. In a few years, everyone can have their genome sequenced; and scientists are working out how to make change to the human genome. What next?

- Suitable for senior secondary (S4-S6) students, teachers and the general public
- [Curriculum links](#): Biology curriculum S4-S6: Part 1 Cell and Molecules of Life (Compulsory Part) and Part 8 Biotechnology (Elective Part)

## 基因檢測的前景

科學家詹姆斯沃森和弗朗西斯克里克於 1950 年代揭開了生命之謎——DNA 結構，時至今日，遺傳學的技術已能夠對人類基因組進行測序。沃森在 2007 年的基因組測序中花費了 150 萬美元，但現在測序的成本只低於 1000 美元。幾年後，相信每個人都可以進行基因組測序，同時科學家亦正在研究如何改變人類基因組。再向前走，下一步又會如何？

- 適合中四至中六學生、老師及公眾參與
- [聯繫課程](#)：中四至中六「生物科」課程：單元一「細胞與生命分子」（必修部份）、單元八「生物工程」（選修部份）

Date & Time 日期和時間

14.03 (Tue) ■ 16.00 – 17.15

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### Speaker 講者

Professor Joyce Harper, Institute for Women's Health,  
University College London  
倫敦大學學院婦女健康研究所 Joyce Harper 教授

### Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

## Reproduction without sex – what does technology have to offer?

Since the birth of the first IVF baby in 1978, it has been possible to have children without sex. We can collect eggs and sperm and mix them in the laboratory to make human embryos. This technology has allowed women to delay having children and also to create new types of families. The science in this area is still evolving but new technology such as making eggs and sperm from adult stem cells, artificial wombs and genome editing may soon be a reality.

- Suitable for senior secondary (S4-S6) students, teachers and the general public
- [Curriculum links](#): Biology curriculum S4-S6:  
Part 1 Cell and Molecules of Life (Compulsory Part) and Part 8 Biotechnology (Elective Part)

## 新技術與無性繁殖

自首名以人工受孕技術培植的試管嬰兒在 1978 年出生以來，人類無性繁殖不再是痴人說夢。我們能夠在實驗室混合卵子和精子製造出人類胚胎，這項技術除了允許婦女推遲懷孕，同時亦能衍生出非傳統家庭。這門科學仍在不斷發展，從成體幹細胞、人造子宮和基因組編輯中製作卵子和精子可能很快成為現實！

- 適合中四至中六學生、老師及公眾參與
- [聯繫課程](#)：中四至中六「生物科」課程：  
單元一「細胞與生命分子」（必修部份）、單元八「生物工程」（選修部份）

Date & Time 日期和時間

15.03 (Wed) ■ 10.45 – 12.00

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### Speaker 講者

Professor Joyce Harper, Institute for Women's Health,  
University College London  
倫敦大學學院婦女健康研究所 Joyce Harper 教授

### Venue 地點

Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

# FameLab Hong Kong Grand Final

## 科學一叮香港區總決賽

- Conducted in English
- Schools can register as audience members online through the Training Calendar on the Education Bureau website: <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm>
- The general public can register as audience members online through the British Council website: <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
- Seats are on a first come, first served basis
- A portion of the seats will be reserved for walk-ins
- More details about the FameLab competition can be found: <http://www.britishcouncil.hk/en/famelab>

- 以英語進行
- 學校可透過教育局網頁 <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm> 上的「培訓行事曆」報名參加
- 公眾可於英國文化協會網頁 <https://www.britishcouncil.hk/en/programmes/education/science/science-alive> 登記進場
- 座位有限，先到先得
- 大會將預留部份座位予即場報名的觀眾
- 查閱「科學一叮」大賽詳情，請瀏覽 <http://www.britishcouncil.hk/famelab>

This is the eighth year of the FameLab competition in Hong Kong. It aims to find the most talented science communicators in the city by getting contestants to share a scientific topic in captivating and innovative way in three minutes in order to inspire and excite public imagination. Audiences can select their favourite presentation for the Audience Choice Award at the Grand Final! Local celebrity comedian Vivek Mahbubani will return as the MC.

- Suitable audiences include senior secondary (S4-S6) students, university students, teachers and the general public

「科學一叮」大賽已是第8年在香港舉辦，旨在發掘本地最具潛質的科普人材。參賽者須在3分鐘內以創新和別開生面的手法介紹一個科學議題，激發公眾的想像力和好奇心。觀眾可以即場投票選出「觀眾心水大獎」得主！棟篤笑藝人 Vivek Mahbubani 今年將會繼續擔任主持！

- 歡迎中四至中六學生、大學生、教師及公眾觀賞賽事

Date & Time 日期和時間

11.03 (Sat) ■ 17.00 – 19.00

Venue 地點

Comix Home Base, Wan Chai

灣仔動漫基地



## Student debate

### 學生辯論

- Conducted in English
  - Schools can register as audience members online through the Training Calendar on the Education Bureau website: <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm>
  - The general public can register as audience members online through the British Council website: <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
  - Seats are on a first come, first served basis
  - A portion of the seats will be reserved for walk-ins
- 
- 以英語進行
  - 學校可透過教育局網頁 <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm> 上的「培訓行事曆」報名參加
  - 公眾可於英國文化協會網頁 <https://www.britishcouncil.hk/en/programmes/education/science/science-alive> 登記進場
  - 座位有限，先到先得
  - 大會將預留部份座位予即場報名的觀眾

Most scientists agree that humans are having an adverse impact on our planet and that conservation and sustainability are imperative. But where do we start? Whose needs come first? At this year's Science Alive student debate, junior form students will try to get to the bottom of this dilemma. In accordance with this year's theme "This Pale Blue Dot", students will debate the topic that conservation should start with animals and not people. Join our audience and find out if the maxim "four legs good, two legs bad" will prevail.

- Suitable audiences include senior secondary (S4-S6) students, teachers and the general public

Date & Time 日期和時間  
17.03 (Fri) ■ 16.30 – 18.00

Venue 地點  
Lecture Hall, Hong Kong Science Museum  
香港科學館演講廳

大部分科學家也同意人類對地球造成傷害，因此確保世界的可持續發展絕對是當務之急！然而，我們應從哪兒著手？誰需要優先照顧？為呼應本年度「活的科學」的主題，學生辯論大賽的參加者會直擊因局核心，就「保育地球政策應以動物為先」這個充滿爭議的辯題展開唇槍舌劍。歡迎加入觀眾行列，一同深思「四足善、兩足惡」這條歐威爾《動物農莊》中的規條是否仍然適用！

- 歡迎中四至中六學生、教師及公眾參與

## Student workshops

### 學生工作坊

- Conducted in English
- The workshops aim to have teachers and students learn together. Teachers can form groups with a minimum of 4 students and maximum of 9 students. Priority will be given to groups who have 10 members (1 teacher and 9 students)
- Schools can register as participants online through the Training Calendar on the Education Bureau website: <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm>
- 以英語進行
- 此工作坊旨在鼓勵師生一起學習。每名老師可攜同最少4名，最多9名學生參加，我們會優先考慮人數達10人的團隊
- 學校可透過教育局網頁 <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm> 上的「培訓行事曆」報名參加



## Where to build a windfarm

Students will learn about what renewable energy is and why it is important given the global challenges to our climate and the unsustainability of our traditional energy sources. Students will be split into groups of four and each team member will be given the role of an engineer, geoscientist, ornithologist or marine mammal expert. Each team will then determine the best place to site an offshore wind farm, looking at all of the different considerations, like whether there are any protected bird species nearby and what sort of material the seabed is made from.

- Suitable for secondary (S1-S3) students and teachers
- [Curriculum links](#): Science curriculum S1-S3:  
Unit 5 Energy

## 風力發電場

學生會認識甚麼是可再生能源，以及它對全球氣候轉變及傳統能源供應問題的重要性。學生將分為四人一組，分飾工程師、地球學家、鳥類學家及海洋哺乳類動物專家，考慮所有因素例如：附近是否有受保護的雀鳥品種、海床由甚麼物質構成等等，為風力發電場敲定最佳選址。

- 適合中一至中三學生及老師參與
- [聯繫課程](#)：中一至中三「科學科」課程：  
單元五「能量」

Date & Time 日期和時間

06.03 (Mon) ■ 10.00 – 11.30 ■ 12.00 – 13.30

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### Facilitator 主持

Outreach team from Newcastle University  
紐卡素大學科學外展隊

### Venue 地點

Laboratory, Hong Kong Science Museum  
香港科學館實驗室

## The ocean's hidden creatures: the amazing world of plankton

Embark on a journey through our oceans and lakes to discover the amazing world of plankton in this workshop led by the University of Glasgow. What are plankton? How do they survive? Why are they important? Peer into microscopes to discover this fascinating and diverse group of organisms and uncover cutting-edge research from the University of Glasgow. Explore food chains and learn what these tiny creatures can tell us about the health of our aquatic environment. Can you identify the mystery species? Become a marine microbiology detective and find out!

- Suitable for secondary (S1-S3) students and teachers
- [Curriculum links](#): Science curriculum S1-S3:  
Unit 3 Looking at Living Things

## 海洋中的隱形成員：浮游生物世界

格拉斯哥大學的學者會帶領大家深入湖海，窺探奇妙的浮游生物。到底甚麼是浮游生物？牠們如何生存？在顯微鏡下，你會發現這些種類繁多的微生物的有趣一面。一起追尋食物鏈的各個環節，了解這些小生物的資料，便可得知地球水環境的健康狀況！立即化身海洋微生物偵探，找出答案！

- 適合中一至中三學生及老師參與
- [聯繫課程](#)：中一至中三「科學科」課程：  
單元三「觀察生物」

Date & Time 日期和時間

13.03 (Mon) ■ 13.00 – 14.30 ■ 15.30 – 17.00

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### Facilitator 主持

Outreach team from the University of Glasgow  
格拉斯哥大學科學外展隊

### Venue 地點

Laboratory, Hong Kong Science Museum  
香港科學館實驗室





## Teacher development workshops

### 教師工作坊

- Conducted in English
  - The workshops target science teachers of primary and secondary schools
  - Teachers can register as participants online through the Training Calendar on the Education Bureau website: <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm>
  - Each session has 20 seats and registration is on a first come, first served basis
- 以英語進行
  - 適合中小學科學科老師
  - 學校可透過教育局網頁 <https://tcs.edb.gov.hk/tcs/publicCalendar/start.htm> 上的「培訓行事曆」報名參加
  - 每節工作坊設有 20 個名額，先到先得

This practical half-day workshop provides ideas about how to inspire young people to study STEM subjects by making science fun and relevant. One workshop is aimed at primary teaching, and one at secondary teaching. The primary workshop will focus on the Street Science educational sessions and how we use interactive experiments to engage students. The secondary workshop will focus on making quite difficult scientific topics appealing and understandable to students. Both will equip teachers with some new ideas and skills to use in the classrooms.

把科學與生活拉上關係，使它變得有趣實用，是吸引學生修讀 STEM 學科的不二之法。因此，我們分別為中小學老師安排了實用的半天工作坊講述相關的教學概念，老師可學到既實用又新穎的授課意念和技巧。小學教師工作坊會聚焦示範如何利用互動實驗提升學生的學習興趣；中學教師工作坊則會講解怎樣把深奧的科學議題平民化，使學生較易明白及增強科目的趣味。

Date & Time 日期和時間 - For primary school teachers 小學老師適用  
07.03 (Tue) ■ 14.30 – 17.00

08.03 (Wed) ■ 10.00 – 12.30

Date & Time 日期和時間 - For secondary school teachers 中學老師適用  
06.03 (Mon) ■ 14.30 – 17.00

07.03 (Tue) ■ 10.00 – 12.30

08.03 (Wed) ■ 14.30 – 17.00

Facilitator 主持

Outreach team from Newcastle University  
紐卡素大學科學外展隊

Venue 地點

Laboratory, Hong Kong Science Museum  
香港科學館實驗室

## School tour shows

### 學校巡迴科學表演

- Conducted in English (Cantonese interpretation provided on request for schools)
- Schools who are interested in having this performance, please register through the British Council website: <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
- Schools should provide screen, projector and PA system with three sets of microphones (preferably clip-on or hands-free ones) for the performers
- There is no maximum to the number of audiences

- 以英語進行（可為有需要的學校提供粵語傳譯）
- 對此表演項目有興趣的學校，可於英國文化協會網頁登記 <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
- 學校需提供投影機、活動屏幕，以及附設 3 套話筒（以夾式或免提話筒為佳）的手提擴音設備供表演者使用
- 觀眾人數不設上限



## Incredible engineering and enlightening invention (For secondary schools)

We will take secondary schools on a journey of discovery and adventure as we look at how science and engineering have changed the way we live. Comparing new and old technology, and what it takes to be the next Albert Einstein, Marie Curie or even Sir Tim Berners-Lee, we will look at how individuals have shaped our world and the journeys which they took to get there.

- Suitable for secondary (S1-S3) students
- **Curriculum links:** Science curriculum S1-S3:  
Unit 5 Energy, Unit 8 Making Use of Electricity and Unit 13 From Atoms to Materials

## 不可思議的工程及科技發明（中學）

我們將會帶領各位學生開展探奇之旅，看看科學和工程學怎樣改變了人類的生活方式！究竟在甚麼環境裡，才可培育出新一代愛因斯坦、居禮夫人或蒂姆伯納斯李爵士？在比照新舊科技之餘，我們會重溫一些傑出科學家如何奠定現代社會的面貌，細味他們的成功故事。

- 適合中一至中三學生欣賞
- **聯繫課程：**中一至中三「科學科」課程：  
單元五「能量」、單元八「電的使用」、單元十三「從原子到材料」

### Date & Time 日期和時間

06.03 (Mon) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

07.03 (Tue) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

08.03 (Wed) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

09.03 (Thur) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

10.03 (Fri) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

### Facilitator 演出者

Ministry of Science

### Venue 地點

School Hall / Auditorium  
學校禮堂 / 演講廳



## Energy and the world we live in! (For primary schools)

We will take you on an inspiring journey of science, engineering and invention as we look at those individuals who have shaped the modern world in which we live. We will be looking at the different types of energy and how they feature in our everyday lives and how some of our most important discoveries in the last 50 years were made using only household items.

- Suitable for primary (P1-P6) students
- [Curriculum links](#): General Studies curriculum P1-P6: Strand 3 Science and Technology in Everyday Life

## 能源與世界（小學）

我們會帶領各位學生踏上啟迪人心的科學、工程與發明之旅，認識非凡的科學人物，也會探究不同類型的能源如何影響人類的日常生活，並看看科學家在過去半世紀怎樣利用簡單的家居物品，便能製作出一些重要的發明。

- 適合小一至小六學生欣賞
- [聯繫課程](#)：小一至小六「常識科」課程：學習範疇三「日常生活中的科學與科技」

## Date & Time 日期和時間

13.03 (Mon) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

14.03 (Tue) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

15.03 (Wed) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

16.03 (Thur) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 – 15.55

17.03 (Fri) ■ 08.50 – 10.25 ■ 11.00 – 12.35 ■ 14.20 - 15.55

## Facilitator 演出者

Ministry of Science

## Venue 地點

School Hall / Auditorium

學校禮堂 / 演講廳



School tour shows 學校巡迴科學表演



## Outdoor environmental learning 考察之旅

- Conducted in English (with Cantonese interpretation)
  - Teachers and students can form groups with a maximum of 25 members. Priority will be given to groups who have 25 members
  - Schools who are interested in participating this tour, please register through the British Council website: <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
  - Schools are required to arrange transportation
- 
- 以英語進行（將提供粵語傳譯）
  - 老師可與學生組成最多 25 人的團隊參加，我們會優先考慮人數達 25 人的團隊
  - 對此項目有興趣的學校，可於英國文化協會網頁登記 <https://www.britishcouncil.hk/en/programmes/education/science/science-alive>
  - 學校需要自行處理交通安排



## Scientific study tour to Ma Shi Chau

Ma Shi Chau, located in Tolo Channel in the Northeast New Territories, forms one of the most significant parts of the Hong Kong UNESCO Global Geopark. The island is composed of sedimentary rocks formed about 280 million years ago. The distinctive geological features and the outstanding conservation values make Ma Shi Chau an ideal destination for geologists and ecologists.

This scientific study tour to Ma Shi Chau will enable students to make connections with nature and build up knowledge in both Earth Sciences and Environmental Sciences. Students can get into the natural environment, apply what they've learnt in the classroom and bring science alive!

- Suitable for senior secondary (S4-S6) students and teachers
- **Curriculum links:** Biology curriculum S4-S6:  
Part 3 Organisms and Environment (Compulsory Part);  
Geography curriculum S4-S6:  
Part 1 Dynamic Earth, the building of Hong Kong (Elective Part)

## 馬屎洲考察之旅

位處吐露港以北的馬屎洲，是香港聯合國教科文組織世界地質公園的一個主要部分。島上的沉積岩約於二億八千萬年前形成，獨特的地貌與珍貴的保育價值，使馬屎洲成為地質學家和生態學家的理想研究地點。

學生到馬屎洲進行科學考察，不但可直接感受與大自然的緊密關係，更可增長地球科學及環境科學知識，把堂上的理論結合實際環境，活用科學！

- 適合中四至中六學生及老師參與
- **聯繫課程：**中四至中六「生物科」課程：  
單元三「生物與環境」（必修部份）；  
中四至中六「地理科」課程：  
單元一「動態的地球：香港地質與地貌的形成」（選修部份）

Date & Time 日期和時間

10.03 (Fri) ■ 09.00 – 12.00 ■ 13.00 – 16.00

17.03 (Fri) ■ 09.00 – 12.00 ■ 13.00 – 16.00

Facilitator 主持

ProjecTerra  
地球知源

Venue 地點

Ma Shi Chau, Hong Kong UNESCO Global Geopark  
香港聯合國教科文組織世界地質公園 - 馬屎洲

