

Off-school Advanced Learning Programme (Year 2024/25): Programme No : 2024-03

Innovation and Technology Nurturing Programme for Gifted Students

(Sponsored by "Gifted Education Fund")

Date: May-Dec 2025

Target: P4 - P6 HKAGE student members in 2024/25 school year (Quota: 40)



Objectives

- Cultivating gifted upper primary students **to become future scientists and inventors** by enhancing their knowledge of the latest developments in science and technology;
- **Developing problem-solving and innovative technological skills** through hands-on learning activities in the classroom;
- Enabling students **to grasp the latest technological advancements and their applications**; and
- Nurturing **positive values, attitudes, national identity, and a sense of patriotism.**



Admission Requirements

- Must be a member of The Hong Kong Academy for Gifted Education
- Excellent academic performance; and
- Basic knowledge of computer programming is required



Medium of Instruction

- Course Material: Chinese supplemented with English
- Class teaching discussion: Cantonese supplemented with English

Application Deadline:
2 April (12nn)




Application



About the application :

 The Hong Kong Academy for Gifted Education


 3940-0101

 programme@hkage.org.hk

Enquiry

About the programme :

 Hong Kong New Generation Cultural Association

 2576-4642

 gefund@newgen.org.hk

Phase 1: Face-to-face lectures (75 hours)



The content includes China's innovation and technology development and scientists' patriotism, invention techniques and research methods, artificial intelligence, big data and cloud computing, drone assembly and flight control, virtual reality (VR), augmented reality (AR) and mixed reality (MR), 3D drawing and printing, creative programming, biomedicine and stem cell research, aerospace technology and space engineering, lunar exploration and Mars exploration, Beidou application and manned spaceflight, star and mineral exploration, etc., providing students with the latest innovation and technology knowledge and skills training.

	Date	Time	Theme
0	29/5 (thu)	17:00-18:00	online briefing session
1	14/6 (Sat)	09:30-12:30	the journey of innovation in China
2	14/6 (Sat)	14:00-17:00	creative thinking and inventive techniques
3	21/6 (Sat)	09:30-12:30	strategies for specialized research
4	21/6 (Sat)	14:00-17:00	3D drawing
5	28/6 (Sat)	09:30-12:30	3D model design
6	28/6 (Sat)	14:00-17:00	3D work testing and sharing
7	5/7 (Sat)	09:30-12:30	fundamentals of cryptography
8	5/7 (Sat)	14:00-17:00	introduction of networking and security
9	14/7 (Mon)	09:30-12:30	drones and their applications
10	14/7 (Mon)	14:00-17:00	programming and structure of drones
11	16/7 (Wed)	09:30-12:30	robotics in space travel
12	16/7 (Wed)	14:00-17:00	planetary resource transport

	Date	Time	Theme
13	18/7 (Fri)	09:30-12:30	lunar exploration, mars colonization and applications of Beidou navigation
14	18/7 (Fri)	14:00-17:00	future space stations
15	4/8 (Mon)	09:30-12:30	basic principles, applications and design of computer programming (1)
16	4/8 (Mon)	14:00-17:00	basic principles, applications and design of computer programming (2)
17	6/8 (Wed)	09:30-12:30	creation, production, testing and reflection of works (1)
18	6/8 (Wed)	14:00-17:00	creation, production, testing and reflection of works (2)
19	8/8 (Fri)	09:30-12:30	utilisation of Raspberry Pi (1)
20	8/8 (Fri)	14:00-17:00	utilisation of Raspberry Pi (2)
21	6/9 (Sat)	09:30-12:30	drug development
22	6/9 (Sat)	14:00-17:00	applications of biomedicine and stem cell research
23	20/9 (Sat)	09:30-12:30	technologies and applications of VR, AR and MR
24	20/9 (Sat)	14:00-17:00	concepts and applications of big data and cloud computing
25	4/10 (Sat)	09:30-12:30	asteroid mining exploration

- Venue: Kwun Tong
- If there are any adjustments to the course, please refer to the official announcement.

Phase 2: Learning outcomes showcase and sharing



- The organizer will hold an event of **graduation ceremony**, allowing each student to share their learning results and outcomes, as well as their thoughts, feelings, gains, difficulties encountered and solutions in class.
- Tentative date: 29 Nov 2025
- Venue: to be confirmed