



香港資優教育學苑
The Hong Kong Academy for Gifted Education

香港特別行政區政府教育局資助
Subvented by the Education Bureau, the Government of the HKSAR

C3PHY001T

(Not-token required)

[Gifted Programme]

💡 Academic Introductory Talk Series

The “Safe Cracking” International Physics Tournament 2025 – Hong Kong Final: Briefing Session

HKAGE Staff, Dr CHAN Mau Hing (Lecturer, The Department of Physics, Hong Kong Baptist University)



Application Deadline

25 Apr 2024

12:00 noon

Intended Learning Outcomes

Upon completion of the gifted programme, participants should be able to:

1. describe the purpose, format and requirement of the “Safe Cracking” International Physics Tournament (IPT) 2025 – Hong Kong (HK) Final;
2. recognise different kinds of hardware, related skills and resources that can be used to build a safe;
3. play with previous safes developed HKAGE teams;
4. suggest creative ideas of locking mechanisms for building a safe.



Holistic Talk Series

◆ Introduction

The “Safe Cracking” International Physics Tournament (IPT) 2025 – Hong Kong (HK) Final is organised by the Hong Kong Academy for Gifted Education (HKAGE). The competition aims at providing a platform for STEAM students to showcase their talents and creativity, and foster a passion in physics. Outstanding students would be selected to represent the HKAGE to join the “Safe Cracking” IPT 2025 (<https://davidson.weizmann.ac.il/en/programs/cracking>) held by Weizmann Institute of Science, Israel.

The IPT encourages understanding of scientific principles (particularly in physics) and development of original ideas to implement these principles. In the tournament, high school students of each team need to design, build, and operate up to two locking mechanisms for a safe based on different principles of physics. These mechanisms must be sophisticated enough to keep the safe locked unless one deciphers the physics principles behind them. You may watch the [video of IPT 2023](#) for more details.

In this briefing session, we shall introduce the IPT-HK competition, including the purpose, format and requirement. We shall also discuss different kinds of hardware, related skills and resources that can be used to build the safe (e.g., electro-mechanical locks, various sensors, microcontrollers, and Bluetooth/WiFi modules). Three safes developed by previous HKAGE teams will be showcased. Participants will also have a chance to take a closer look at the safes.

◆ Schedule

Session	Date	Time	Venue
1	27 Apr	10:00 a.m. – 12:30 p.m.	Room G01, HKAGE

◆ Suitable for

- Open to public: Physics school teachers, and S2 – S4 students in 2023/24 school year.
- Class size: 80
- * First-come, first-served

◆ Medium of Instruction

Cantonese

◆ Certificate

E-Certificate will be awarded to student participants who have attended the talk.

◆ Remark

Starting from the 2023/24 school year, after the first review period, ALL student members must complete the following requirements in each school year in order to maintain their membership:

- Attend One Talk; AND
- Participate in One programme or activity of any kind.

This talk is one of the items in the four domains of the Holistic Talk Series. The objective is to facilitate the all-round development of student’ gifted potential.



The Hong Kong Young Academy of Sciences (YASHK) talk series

Talks are about emerging technology to inspire students’ motivation in pursuing knowledge in specialized areas.



Celebrities Talk Series

Celebrities share their life-changing moments to enhance students’ aspirations for life.



Academic Introductory Talk Series

Introduce trendy topics to widen the students’ horizons.



Future Insight Talk Series

Professionals explain the latest trend in their industry to give students an insight to plan their future.

◆ Enquiry



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