



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

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[Gifted Programme]

STEM Workshop (Level I)

Exploring Mechanics and Aerospace – King of Spinning Top and Rocket

Instructor:

Creative Education Unit, The Hong Kong Federation of
Youth Groups



Application Deadline
29 Apr 2024 12:00 noon

Result Release
10 May 2024

Intended Learning Outcomes

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

1. describe the history of the development of aerospace science and technology;
2. elaborate the aerospace knowledge and the power system of rockets;
3. apply basic concepts of mechanics such as centre of gravity and moment of force;
4. compare the effects of different variables on experimental results;
5. raise aspirations for understanding the future of space exploration.

◆ Gifted Programme Introduction

This workshop consists of two parts:

King of Spinning Top: Knowledge of forces and centre of gravity allows us to understand the principles of motion and equilibrium of objects. Through experiments, participants will build a spinning top that lasts the longest. The hands-on activities allow them to explore relevant concepts and enhance their hands-on ability as well as problem solving skills.

Rocket Workshop: Participants will learn the basic concepts of mechanics and also have the opportunity to create a little chemical rocket. This will help them understand the principles of rocket launch and figure out the fundamental conditions of space exploration.

◆ Schedule

Session	Date	Time	Venue
1	1 Jun	2:00 – 5:00 p.m.	Room 105, HKAGE

◆ Suitable for

- P4 to P6 HKAGE student members
- Class size: 30
- * Random Selection

◆ Medium of Instruction

Cantonese with Chinese Handouts

◆ Certificate

E-Certificate will be awarded to gifted students who have:

- attended all sessions; and
- completed all the assignments with satisfactory performance

◆ Pre-requisite

No special prerequisites are needed