

**SINGAPORE INTERNATIONAL MATHEMATICAL
AND COMPUTATIONAL CHALLENGE (SIMC^{2.0})**

20 – 24 May 2024

INFORMATION SHEET FOR SIMC^{2.0} ENDEAVOUR TRACK

INTRODUCTION

1. The Singapore International Mathematical and Computational Challenge (SIMC^{2.0}) is the successor to the Singapore International Mathematics Challenge (SIMC). The SIMC was a biennial international mathematical modelling competition organised by NUS High School of Mathematics and Science with the Ministry of Education, Singapore (MOE). The inaugural SIMC was held in 2008. In 2018, over 53 schools from 33 countries took part in the SIMC. In 2020, SIMC was held online due to the COVID-19 pandemic.
2. In 2022, the SIMC was adapted to better meet the learning needs of youth in current times with the inclusion of computational modelling. We also wish to promote interdisciplinary thinking by getting participants to apply mathematics and computing to solve real-world problems. The inaugural SIMC^{2.0} was held online in November 2022. 52 schools from 22 countries and regions took part in the event.
3. SIMC^{2.0} 2024 will have 2 tracks – Explore and Endeavour. The **Explore Track** is for Secondary 1 to 3 students from Singapore schools. The **Endeavour Track** is open to schools worldwide for students aged 16 – 18 years old or studying the equivalent of Grades 10 – 12 (as of Year 2024).
4. The Endeavour Track challenge will be held on-site in NUS High School, Singapore from **20 May 2024 (Monday) to 24 May 2024 (Friday)**.
5. The working language of the event is English.

NATURE OF CHALLENGE

6. SIMC^{2.0} is a mathematical and computational modelling challenge based on real-world applications. A senior faculty member of the National University of Singapore is the Chief Setter of the challenge.
7. The SIMC^{2.0} 2022 challenge questions are attached for your reference.
8. Participation is team-based. Each school is allowed **one** team consisting of **three** students.
9. Each team may use any resources such as textbooks, computers, and materials available on the Internet. Teams are to work on the challenge independently, with no assistance from anyone outside the team of 3 students. We will require participants to sign a declaration to this effect. We rely on an honour system for these rules.
10. Teams will submit their solutions in a written report and will do an oral presentation to the judges.

COSTS

11. There is no registration fee for participation.
12. Participating schools will be responsible for organising and financing their own flights to and from Singapore Changi International Airport (SIN), including travel insurance and visa if necessary. NUS High School will provide local land transport to and from the airport, and for all official SIMC^{2.0} activities. As far as possible, please arrange for your flights to arrive on 19 May 2024 and depart on 25 May 2024. NUS High School will provide airport transfer for your team only on 19 May 2024 and 25 May 2024.
13. NUS High School will provide accommodation from 19 May 2024 to 25 May 2024. Check-in at accommodation is earliest at 1400h on 19 May 2024, and check-out is latest by 1200h on 25 May 2024. Details of the accommodation will be provided at a later date.
14. NUS High School will provide for all meals from 20 May 2024 to 24 May 2024.
15. Participating schools are strongly encouraged to purchase comprehensive travel insurance that will cover medical needs. Participants may also incur incidental expenses such as for toiletries, snacks, and other personal needs.

ENDEAVOUR TRACK PROGRAMME

16. The challenge will be released at 0900h (Singapore Standard Time (UTC+8)) on 21 May 2024. The tentative programme is shown below in Table 1.

Table 1: Tentative Programme for SIMC^{2.0} Endeavour Track

Date	Events
19 May 2024 Sunday	Arrival and check-in to accommodation
20 May 2024 Monday	Admin briefings, ice breakers Opening Ceremony Explore Track Students' Learning Festival
21 May 2024 Tuesday	Release of Endeavour Track Challenge Educators' Learning Festival
22 May 2024 Wednesday	Submission of written report
23 May 2024 Thursday	Oral presentation to judges Learning Journey
24 May 2024 Friday	Cultural outing and activities Closing and Award Ceremony Farewell dinner
25 May 2024 Saturday	Departure

17. EDUCATORS' LEARNING FESTIVAL

The educators' programme on 21 May 2024 will consist of a learning festival with sharing by educators in the areas of:

- Technology (e.g. Use of AI) in Math Education
- Computational Modelling in Math
- Math Education for Gifted Learners

JUDGING AND AWARDS

18. Awards will be given out to the winning teams. The team submissions will be judged by a panel of judges comprising faculty members and researchers from Singapore's institutions of higher learning and research institutions. A senior faculty member from the National University of Singapore is the Chief Judge of SIMC^{2.0}.
19. Judging will be held on 23 May 2024. Teams will do an oral presentation to the judges.
20. Awards will be given out as shown in Table 2 below:

Table 2: Awards for SIMC^{2.0} Endeavour Track

Awards	Description
Champion Award	Best solution to the Challenge
Distinction Award	Excellent solution to the Challenge
Commendation Award	Good solution to the Challenge
Special Awards	Special awards will be awarded to teams with outstanding achievements in certain aspects of the Challenge (e.g. most innovative solution or best presentation)

21. The decisions made by the judging panel will be final.

FORMS AND DATES

22. Online registration starts **27 November 2023**. Please fill in the school and team details via <https://nush.link/2024simc>. Registration will close on **5 January 2024**. Registration will be done in 3 phases.

Phase	Form	Opening / Closing Dates of the three phases
1	<u>Participation</u> <i>Complete this form to indicate your school's interest to participate in SIMC^{2.0} and provide details of a contact person whom NUS High School can liaise with.</i>	Opening Date: 27 November 2023 Closing Date: 5 January 2024 or when event reaches capacity, whichever is earlier.
	<u>School Details</u> <i>Complete this form to provide detailed information about your school.</i>	
2	<u>Student Participant Details</u> <i>Complete this form to provide detailed information for each student participant.</i>	Opening Date: 15 January 2024 Closing Date: 15 March 2024
	<u>Teacher Participant Details</u> <i>Complete this form to provide detailed information of the teacher participant.</i>	
3	<u>Flight Information</u> <i>Complete this form to provide your team's flight details.</i>	Opening Date: 15 January 2024 Closing Date: 5 April 2024

Please indicate your participation in SIMC^{2.0} during the Phase 1 registration. Forms for Phases 2 and 3 will be available for your completion during the period stated in the above table.

23. If you have any enquiries about the event, please contact us at invite@highsch.nus.edu.sg.
24. We look forward to your support and participation in SIMC^{2.0} 2024.
25. **Important Notice:** By registering for SIMC^{2.0}, you give consent to:
- (a) The collection, use and disclosure of personal data by NUS High School and MOE, for the purpose of contacting participants/educators on matters relating to the SIMC^{2.0} and arranging of accommodation and other activities/programmes for SIMC^{2.0}.
 - (b) The use and disclosure of photographs and/or video images and video recordings by NUS High School and MOE, for the purpose of publicity for the event.