International study shows Hong Kong students' outstanding performance in mathematics and science

â€‹The results of the Trends in International Mathematics and Science Study (TIMSS) 2023 were announced today (December 4). A spokesman for the Education Bureau (EDB) said that the overall performance of Hong Kong students far exceeded the international average, showcasing their outstanding achievements.

TIMSS 2023, under the auspices of the International Association for the Evaluation of Educational Achievement, is conducted every four years with the aim of studying students' performance in mathematics and science at Grade 4 (equivalent to Primary Four (P4) in Hong Kong) and Grade 8 (equivalent to Secondary Two (S2) in Hong Kong). More than 60 countries or regions participated in the study.

The spokesman said, "Hong Kong students maintained a consistently high level of performance in mathematics. Their overall result was outstanding. Our P4 students ranked fourth with a score of 594, which significantly surpassed the international average of 503. Our S2 students maintained the fifth place with a score of 575, notably exceeding the international average of 478. Meanwhile, the proportions of P4 and S2 students reaching the advanced level of the international benchmark in mathematics were 38 per cent and 32 per cent respectively, well above the international median of 7 per cent in the two grade levels."

Significant progress was seen among Hong Kong students in science, with P4 and S2 students showing a marked rise from 15th and 17th in the previous cycle to ninth and eighth in this cycle, scoring 545 and 528 respectively, significantly surpassing the international average of 494 and 478. Their proportions achieving the advanced level of the international benchmark in science were 17 per cent and 14 per cent respectively, exceeding the international median of 7 per cent and 6 per cent.

The spokesman said, "Hong Kong students' outstanding performance in mathematics and science affirmed the teaching effectiveness of schools and teachers, as well as learning outcomes of students. To align with the national direction of 'invigorating the country through science and education', the EDB has been stepping up efforts to promote STEAM (science, technology, engineering, the arts and mathematics) education for all, for fun and for diversity to facilitate schools' creation of an atmosphere conducive to the learning of science, innovation and technology, enhance students' knowledge and skills in STEAM-related areas, and strengthen students' scientific investigation and problem-solving skills. In tandem, through continuously optimising the curriculum, strengthening teacher training in collaboration with various partners, organising STEAM learning activities

beyond the classroom, as well as offering resource support for schools, the EDB nurtures students' interest and capabilities in learning science and technology from an early age, and enables students to develop their potential in innovation to foster future innovation and technology talent for our country and Hong Kong.

"The EDB will conduct an in-depth study of the results of TIMSS 2023 and continue to collaborate closely with different stakeholders to jointly and vigorously review the current learning and teaching measures, nurture students' interests, and strengthen learning and teaching effectiveness in order to enhance Hong Kong students' international competitiveness," the spokesman added.

The background information and key statistics of TIMSS 2023 are in the Annex.