EDB follows up on results in Trends in International Mathematics and Science Study

The results in the Trends in International Mathematics and Science Study (TIMSS) 2019 were announced today (December 8). The Education Bureau (EDB) will draw reference from the study results as well as the performance of Hong Kong students in other assessments and activities, and continue to collaborate with all relevant stakeholders to promote the development of school education.

TIMSS 2019 was organised by the International Association for the Evaluation of Educational Achievement to study students' performance in mathematics and science at Grade 4 (equivalent to Primary Four in Hong Kong) and Grade 8 (equivalent to Secondary Two in Hong Kong). More than 60 countries/regions participated in the study. The previous cycle of the TIMSS study was conducted in 2015.

A spokesman for the EDB said, "Hong Kong students maintained excellent performance in mathematics. Our Primary Four (P4) students ranked second, same as in 2015, while our Secondary Two (S2) students came fifth, slightly below their fourth ranking in 2015. In terms of the scores, our P4 students scored 602 and S2 students scored 578, dropping from 615 and 594 respectively in the previous cycle, but the two scores were still significantly above the international average of 500. Meanwhile, a large proportion of Hong Kong P4 and S2 students attained the advanced level of international benchmark in mathematics. The proportion of P4 and S2 students reaching the advanced level in the subject was 38 per cent and 32 per cent respectively, which was well above the international median of 7 per cent and 5 per cent. Hong Kong students have maintained their outstanding performance in mathematics overall."

In science, Hong Kong P4 and S2 students performed relatively less proficiently and ranked 15th and 17th respectively, dropping from the fifth and sixth ranks in the previous cycle. P4 and S2 students scored 531 and 504, down from 557 and 546 respectively, which were still above the international average of 500. At the same time, the proportion of P4 and S2 students reaching the advanced level in the subject was 8 per cent and 9 per cent respectively, slightly higher than the international median of 6 per cent and 7 per cent.

"In light of the results in this TIMSS study, we will review our prevailing curriculum policies and teaching and learning measures to figure out the reasons behind, and work out necessary improvement measures to boost our students' performance in science. The EDB will continue to implement various support measures in enhancing science education, including strengthening teacher training and provision of teaching resources for schools. At the same time, the EDB will attach great importance to the promotion of science, technology, engineering and mathematics (STEM) education to enhance students' ability to integrate and apply knowledge and skills and to solve problems through deliberations and practices, thereby unleashing their potential in science and technology and enhancing creativity. We will further enhance the support measures riding on the present foundation built by schools, so as to continue enhancing students' interest and learning effectiveness in STEM disciplines.

"There have been modest ups and downs in Hong Kong students' performance in the previous cycles. We will work closely with different stakeholders to conduct an in-depth study of the results of TIMSS 2019, and draw reference from the successful experience of high achieving countries/regions. We will review and enhance relevant policies, and strengthen supportive measures to improve students' learning, promote students' interest and elevate learning and teaching effectiveness in order to enhance Hong Kong students' international competitiveness," the spokesman added.

The background information of TIMSS 2019 is at the Annex.