

# International study shows Hong Kong students' steady performance in mathematical, scientific and reading literacy

A spokesman for the Education Bureau (EDB) said the results in the Programme for International Student Assessment (PISA) 2022 announced today (December 5) showed Hong Kong students' steady performance in mathematical, scientific and reading literacy, with overall scores continuously surpassing the international average.

PISA is organised by the Organisation for Economic Co-operation and Development, with an aim to assess the mathematical, scientific and the mother tongue reading literacy of 15-year-old students. Since 2000, PISA has been conducted in three-year cycles. Due to the COVID-19 pandemic, the eighth cycle of PISA was postponed to 2022, with participation of a total of 81 countries or economies. The EDB commissioned the Chinese University of Hong Kong (CUHK) to conduct the main study in Hong Kong from May to July 2022. A total of 5 907 students aged 15 from 163 secondary schools participated in the study.

The spokesman said, "The purpose of PISA is to assess whether students have acquired the knowledge and skills essential for meeting the needs of future life, rather than evaluating their performance in specific school curricula. Affected by the pandemic, Hong Kong students experienced intermittent suspension of face-to-face classes. The main study of PISA 2022 was conducted at a time when Hong Kong had just gone through the fifth wave of the pandemic, and schools had just resumed half-day face-to-face classes. Notwithstanding the above, we were determined to participate in the assessment. Thanks to the concerted efforts of various sectors in supporting students' learning, Hong Kong students were able to perform well in PISA 2022 despite various challenges."

## Mathematical literacy

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Hong Kong maintained its ranking in the fourth place with a score of 540, which was significantly above the international average of 472. The performance of Hong Kong students was outstanding, reaffirming the teaching effectiveness of schools and teachers in the subject. The EDB hopes that schools will continue to strengthen students' capability in the application of mathematics and logical thinking through "Inquiry and Investigation" learning and teaching activities to meet future challenges and societal needs.

## Scientific literacy

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Hong Kong's ranking advanced from the ninth place in the previous cycle to the seventh place. Its score also increased from 517 to 520, which was significantly above the international average of 485. Hong Kong students have made progress and continued to maintain very high standards internationally. Over the past few years, the EDB has continuously enhanced the implementation of the Science curriculum, with a view to consolidating the foundation of the knowledge of science among students and strengthening their scientific investigation skills, thereby enhancing their scientific literacy. Furthermore, the EDB has invested significant effort into promoting STEAM (Science, Technology, Engineering, the Arts and Mathematics) education to enhance students' ability to integrate and apply knowledge and skills in these areas, strengthen their problem-solving skills and nurture their creative thinking. The EDB will continue to enrich relevant learning, such as integrating the learning of innovation and technology in class.

#### Mother tongue reading literacy

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Hong Kong ranked 11th, dropping from the fourth place in the previous cycle. Its score dropped from 524 to 500, while the international average stood at 476. In other international studies such as the "Progress in International Reading Literacy Study" conducted in 2021, Hong Kong students excelled and ranked second among 43 participating countries or regions. Nevertheless, with the pandemic entering its third year, the suspension of face-to-face classes and reduced school life had adversely affected the reading atmosphere. As pointed out by the CUHK Project Team, students might have allocated their learning time to different subjects during this period, thus reducing the time on reading. The EDB will work with the Project Team to conduct an in-depth analysis and devise targeted measures to address the reading interests and abilities of students in this age group following the resumption of normalcy after the pandemic. In addition, the EDB will step up efforts to support schools through diversified strategies to promote "Reading to Learn", including provision of a recurrent grant to facilitate schools' promotion of reading, advocating "Reading across the Curriculum", as well as continuous provision of relevant professional development programmes, training and learning and teaching resources for teachers. The EDB will also continue to harness the efforts of government departments, universities, and cultural and educational institutions to organise various types of reading and cultural activities, with a view to further enhancing students' reading literacy and fostering a reading culture.

The spokesman added, "In terms of education equity, Hong Kong ranked second among countries or economies with high academic achievements, indicating that the socio-economic status of Hong Kong students has minimal bearing on their performance. Generally speaking, during the period of class suspension amid the pandemic, schools in Hong Kong provided ample support to students. Students from different socio-economic backgrounds performed equally well. The PISA 2022 results reaffirmed the merits of the Hong Kong education system, which is able to provide all students with high-quality and

equal education opportunities, thereby facilitating social mobility.

"The EDB commends students for their remarkable performance in mathematical and scientific literacy, which was attributed to their continuous learning at home during the suspension of face-to-face classes, fully achieving 'suspending classes without suspending learning'. We also thank schools, teachers and various stakeholders for their continuous contributions to providing quality school education. We will draw reference from the findings of the PISA study to review our prevailing learning and teaching measures, in particular those relating to reading, to formulate targeted strategies for boosting students' performance. We will also continue to collaborate closely with different stakeholders to strengthen learning and teaching efficacy in order to enhance the international competitiveness of Hong Kong students."

Background information and key statistics of PISA 2022 are in the Annex.