

# Pan-Canadian Assessment Program

## PCAP 2023 FAQ



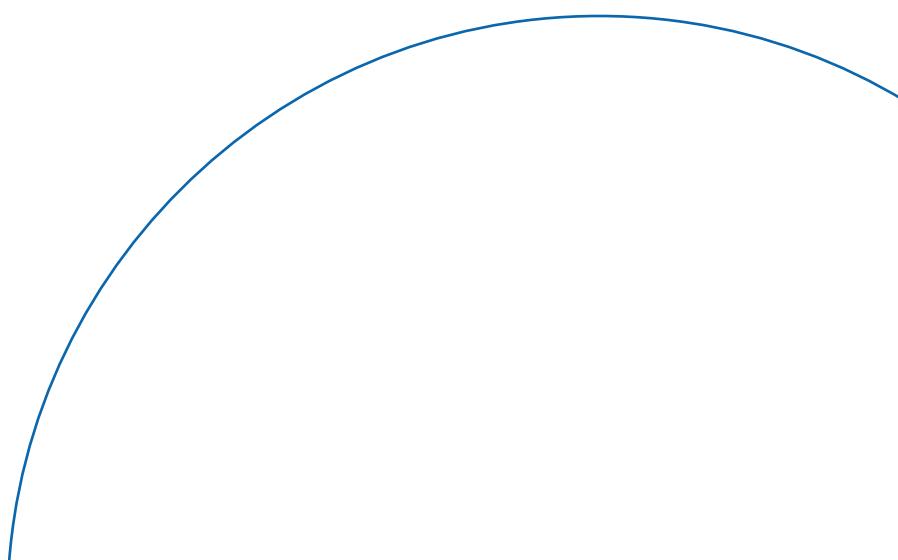
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(Canada)

# PCAP 2023 FAQ

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## What is PCAP?

The Pan-Canadian Assessment Program (PCAP) assesses the knowledge and skills of Canadian students in three core learning areas—science, reading, and mathematics. It also collects a significant range of contextual information (on family, institutional, and community factors) to enhance interpretation of prosperity outcomes (educational attainment, academic achievement, health and well-being, engagement, and social-emotional learning). PCAP was developed and is administered by the Council of Ministers of Education, Canada (CMEC) with the active involvement of all participating ministries and departments of education.



## Why was PCAP developed?

CMEC developed PCAP to ensure the availability of statistically valid, comparable data on student achievement in Canada. PCAP data will be used by education researchers, policymakers, and government officials to understand and make improvements to provincial and territorial education systems.

## Which students are assessed in PCAP?

For PCAP 2023, approximately 31,500 students in Grade 8 (Secondary II in Quebec) from more than 1,400 schools across the country participated in the online assessment. Science was the major focus of the assessment. Reading and mathematics were also assessed. Approximately 24,000 students were assessed in English and 8,000 in French.

Students from all provinces participated in PCAP 2023.



## Who funds PCAP and how much does it cost?

PCAP is funded by provinces and territories through their long-standing intergovernmental body, CMEC. On average, PCAP costs approximately \$1.1 million annually.

# How often is PCAP administered?

PCAP has been administered every three years, which allows for comparison of results over time in all three domains—science, reading, and mathematics. These data help provinces and territories understand how the performance of their education systems may have changed over time.

<b>2007</b>	<b>Reading</b>	Math	Science
<b>2010</b>	Reading	<b>Math</b>	Science
<b>2013</b>	Reading	Math	<b>Science</b>
<b>2016</b>	<b>Reading</b>	Math	Science
<b>2019</b>	Reading	<b>Math</b>	Science
<b>2023</b>	Reading	Math	<b>Science</b>
<b>2027</b>	<b>Reading</b>	Math	Science



Each PCAP assessment has a major domain, or focus, and two minor domains. The major domain (in green) rotates every administration. A major-domain assessment can be compared over time with another minor- or major-domain assessment in the same subject. PCAP 2022 was delayed until 2023 in response to the global pandemic. The next administration of PCAP will take place in 2027, as the assessment is moving to a four-year cycle; this move aligns with the Organisation for Economic Co-operation and Development's (OECD's) Programme for International Student Assessment (PISA).

# Why does PCAP have one major domain and two minor domains?

This particular structure was chosen to align PCAP with the Organisation for Economic Co-operation and Development's (OECD's) Programme for International Student Assessment (PISA). It is expected that a significant portion of the Grade 8/ Secondary II student cohort from PCAP will take the PISA assessment when those students are 15 years old. PISA 2025 also had science as its major domain, so it is possible to compare performance patterns between the two assessments.



## Can performance among different provinces and territories really be compared?

Education systems and school programs differ from one province or territory to another, so comparing results can be a complex task. PCAP allows a variety of education systems to be compared according to a set of common benchmarks in science, reading, and mathematics. The benchmarks have been established through extensive consultation among provinces and territories and with the guidance of statisticians, psychometricians, and education experts.

By agreeing to common benchmarks, provinces and territories are able to determine their relative performance in relation to each other, even if their approaches to education may differ.



## Is the assessment fair to students in each province and territory?

The assessment is not tied to the curriculum of a particular province or territory but is instead a fair measurement of students' abilities to apply their skills to real-life situations. It measures how well students are doing; it does not attempt to assess approaches to learning.

Provinces and territories also work to ensure that the unique qualities of our country's education systems are taken into account. Factors such as linguistic differences, rural and urban school locations, and cultural influences are all considered in both the assessment itself and in related context questionnaires. In addition, the common curricular framework for each subject incorporated an agreed-upon perspective for all provinces and territories that was based upon the latest pedagogical research.



## How are the results from PCAP determined?

PCAP uses four equivalent versions of the test to ensure both broad content coverage and a fair and accurate means of comparing student performance across provinces. To render the scores obtained from the various versions comparable, assessment experts developed a statistically valid "common language." This was done by converting the raw scores from the four versions of the assessment to a standard scale. Students' total scores in each subject

area were transposed onto a common scale, ranging from 0 to 1,000, with the average for the pan-Canadian population set at 500. The resulting scores are called "scale scores."

As a result of this conversion, the scores of approximately two-thirds of the students participating in PCAP 2023 fell within the range of 400 to 600 points, which represents a "statistically normal distribution" of scores.

# How does PCAP define scientific literacy?

For the purpose of the PCAP assessment, *scientific literacy* is broadly defined as a student's evolving competencies of understanding the nature of science using science-related attitudes, skills, and knowledge to conduct inquiries, to solve problems, and to reason scientifically in order to understand and make evidence-based decisions about science-related issues.

The domain of science is divided into three competencies (scientific inquiry, problem solving, and scientific reasoning) as well as four subdomains (the nature of sciences, life sciences, physical sciences, and Earth sciences). The subdomains intersect with each other, and the competencies are interwoven through the subdomains.



# What do the performance levels in science mean?

Performance levels represent how well students are doing based on the cognitive demand and degree of difficulty of the assessment items. Cognitive demand is defined by the level of reasoning required by the student to correctly answer an item, from high demand to low demand; degree of difficulty is defined by a statistical determination of the collective performance of the students on the assessment.

There were four levels of performance in the science component of PCAP 2023:



Level 4	Students who scored above 614
Level 3	Students who scored from 529 to 614
Level 2	Students who scored from 382 to 528
Level 1	Students who scored below 382



Level 2 is the expected level of performance for Grade 8/Secondary II students. Level 1 represents the performance of students at a level below that expected of students in their grade. Levels 3 and 4 represent higher levels of performance. The defined expected levels of performance were established by a panel of assessment and education experts from across Canada, and confirmed by actual student assessment responses.

# When will the next PCAP assessment take place?

PCAP will be administered again in 2027. PCAP 2027 will have reading as its major focus; mathematics and science will be assessed as minor domains.

