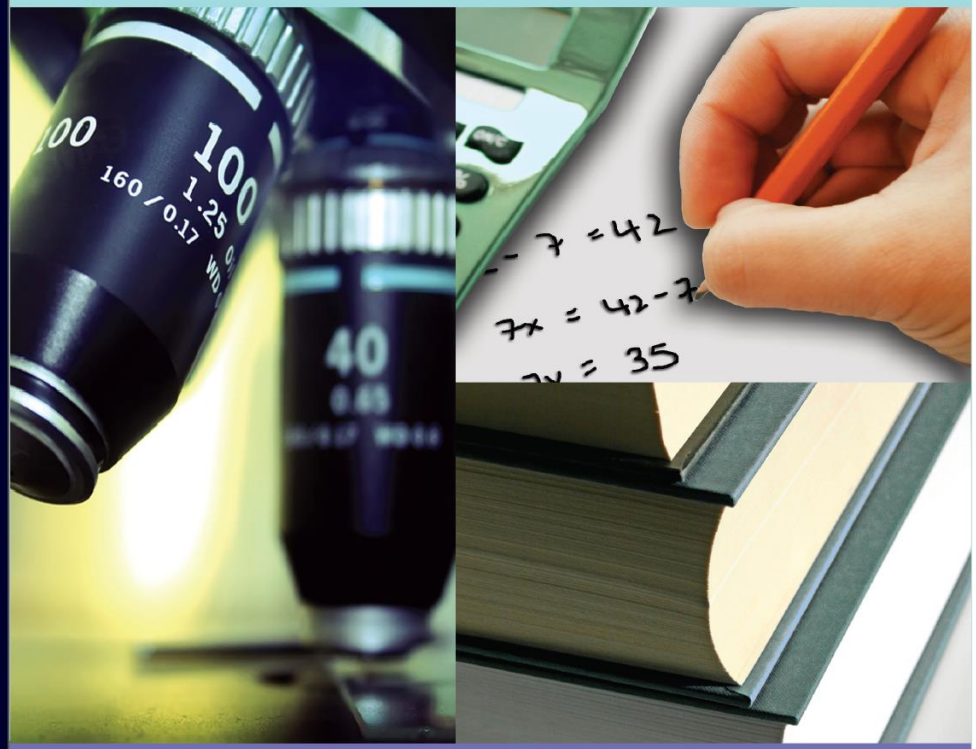
Pan-Canadian Assessment Program

PCAP 2013

Report on the Pan-Canadian Assessment of Science, Reading, and Mathematics



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Council of Ministers of Education, Canada
Conseil des ministres de l'Éducation (Canada)

PCAP 2013 Public Report

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Toronto, Ontario

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Council of Ministers of Education, Canada

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What is PCAP?

Approximately 32,000 Grade 8/ Secondary II students from over 1,500 schools

Developed by CMEC and provinces/territories

10 provinces

Initiated in 2007, administered every three years

Administered in English and French

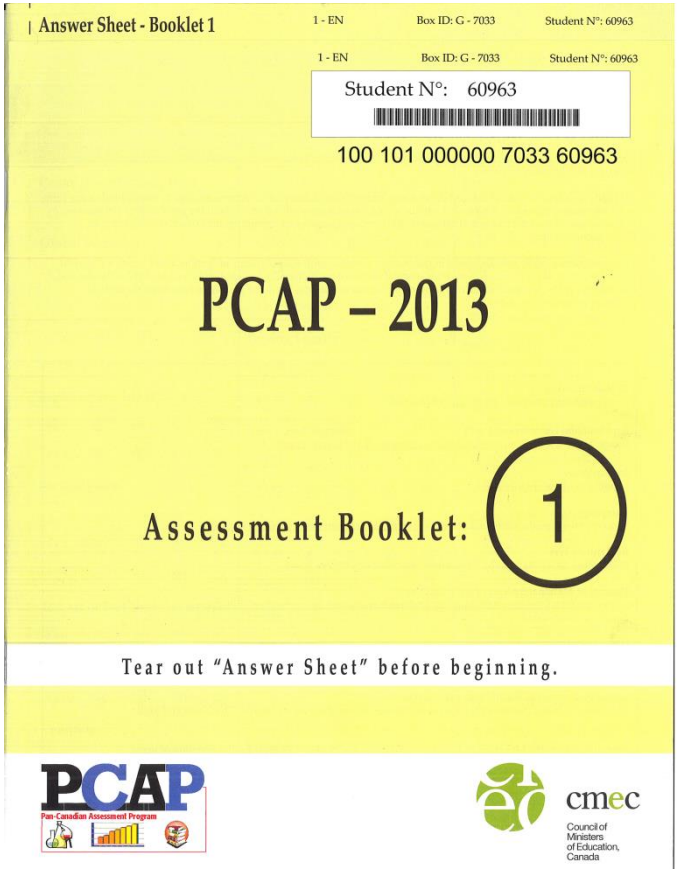
Based on common curriculum outcomes across Canada

Includes contextual questionnaires for students, teachers, and school principals

PCAP

PCAP administration

- 90-minute paper-based test
- Major Domain: Science
- Minor Domains: Reading Mathematics
- 30-minute background questionnaire



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Percentage of students at or above the expected level of performance in science (level 2*)

At the pan-Canadian level, 91 per cent of students are achieving the expected level of performance for their grade.

Across jurisdictions, between 86 and 94 per cent of students achieve the expected level.

*Level 2 is considered "baseline proficiency," or the level at which students begin to demonstrate the competencies needed to participate in life situations related to science.

Jurisdiction	Expected Level of Performance (level 2 and above) (%)
British Columbia	91
Alberta	93
Saskatchewan	88
Manitoba	86
Ontario	94
Quebec	91
New Brunswick	87
Nova Scotia	91
Prince Edward Island	93
Newfoundland and Labrador	94
Canada	**91**

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Percentage of students at the highest levels of performance in science

Almost 50 per cent of students are above the expected (or baseline) level of performance.

Across jurisdictions, between 33 and 56 per cent of students achieve above the minimum level of proficiency.

Highest performance:

- Alberta: 56 per cent
- Ontario: 53 per cent

Jurisdiction	Above Expected Level of Performance (levels 3 and 4) (%)
British Columbia	48
Alberta	56
Saskatchewan	41
Manitoba	33
Ontario	53
Quebec	41
New Brunswick	35
Nova Scotia	43
Prince Edward Island	43
Newfoundland and Labrador	47
Canada	**47**

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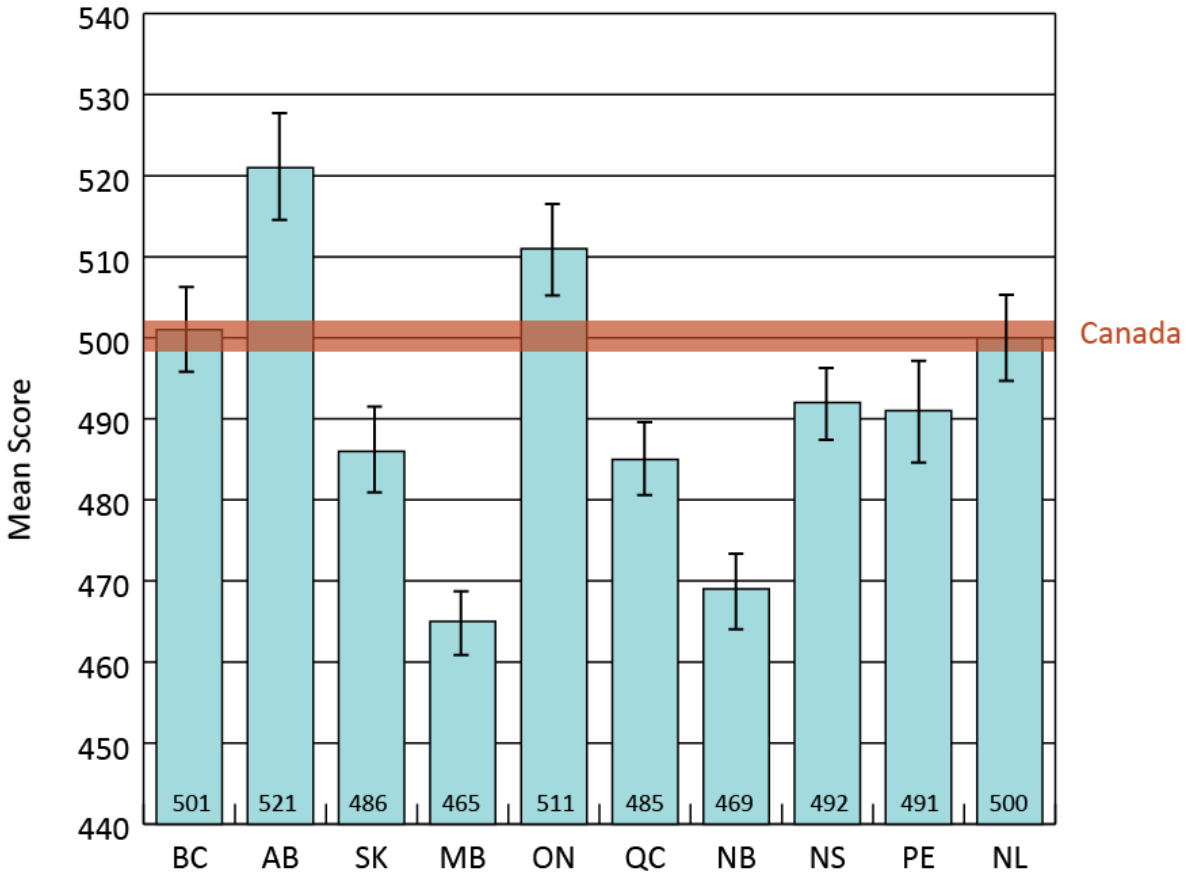
Pan-Canadian results in science by jurisdiction

British Columbia, Alberta, Ontario, and Newfoundland and Labrador perform at or above the Canadian average.



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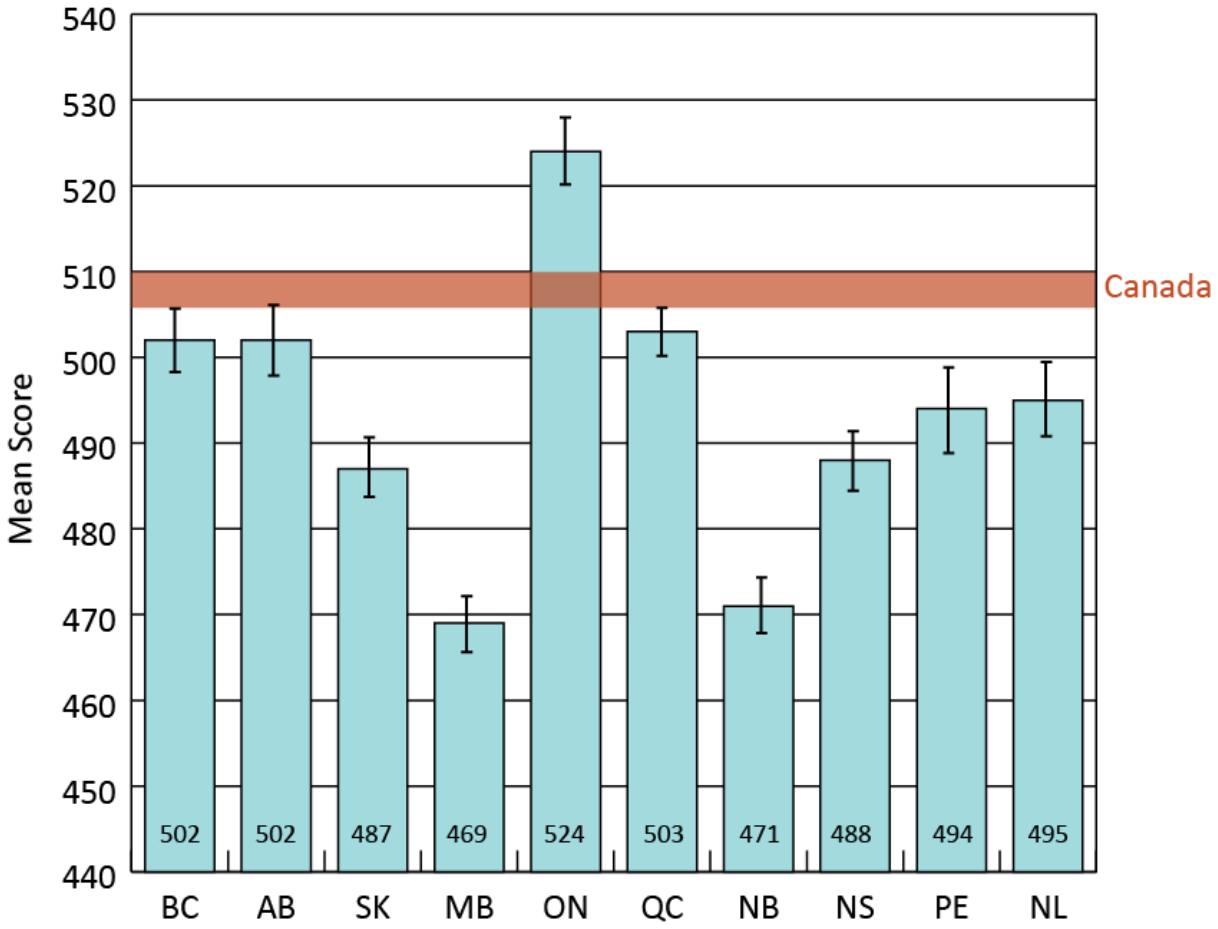
Pan-Canadian results in **reading** by jurisdiction

Ontario students perform above the Canadian average.



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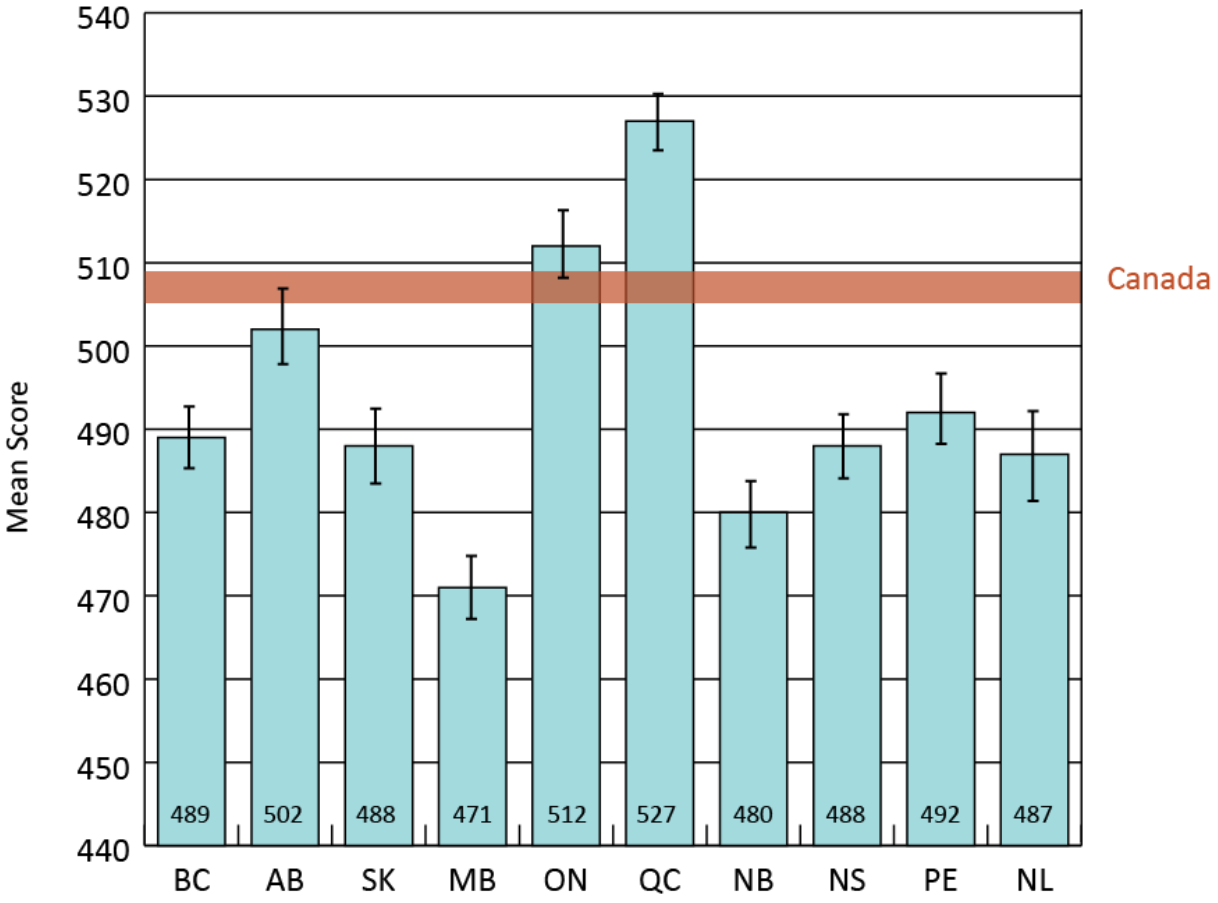
Pan-Canadian results in **mathematics** by jurisdiction

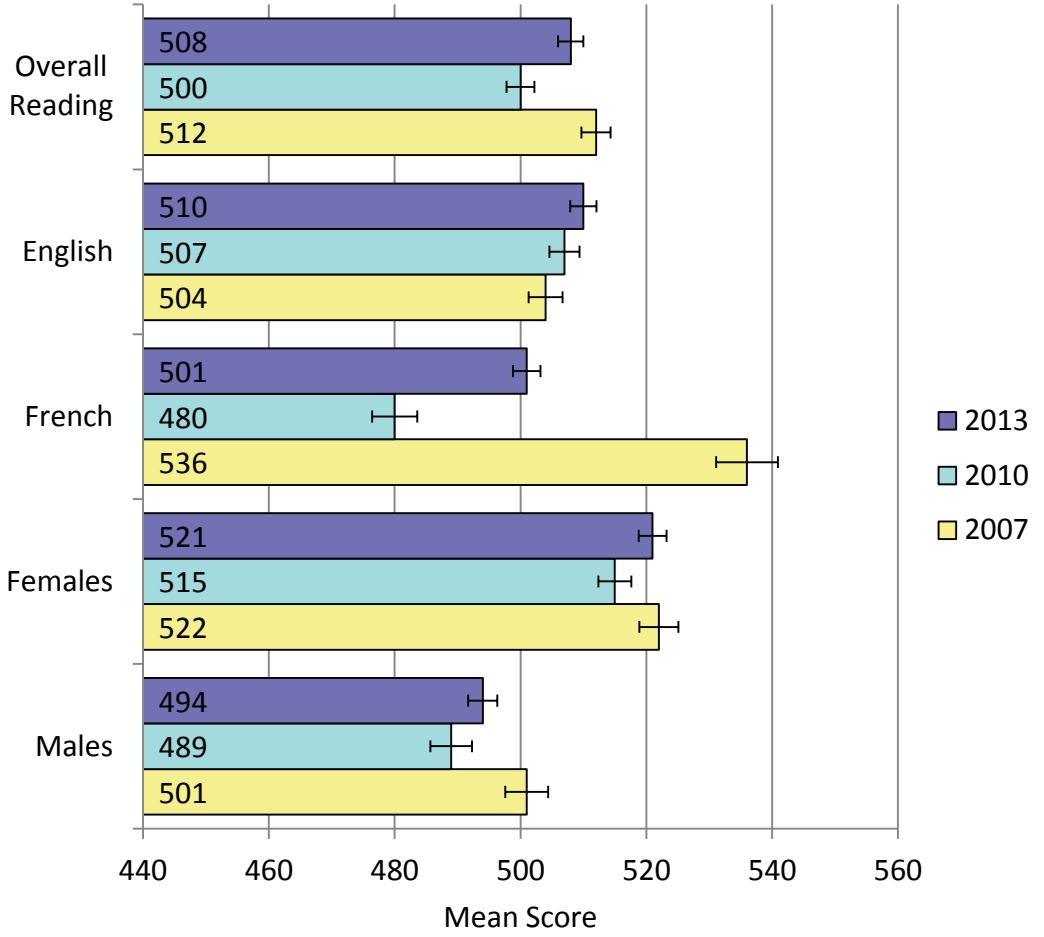
Alberta, Ontario, and Quebec students perform at or above the Canadian average.



Reading comparison – 2007, 2010, and 2013

Between 2007 and 2013, a positive change occurs in English-language schools and a negative change in French-language schools.

Between 2010 and 2013, there is a positive change for reading overall, for females, and in French-language schools.



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Reading comparison – 2007, 2010, and 2013 by jurisdiction

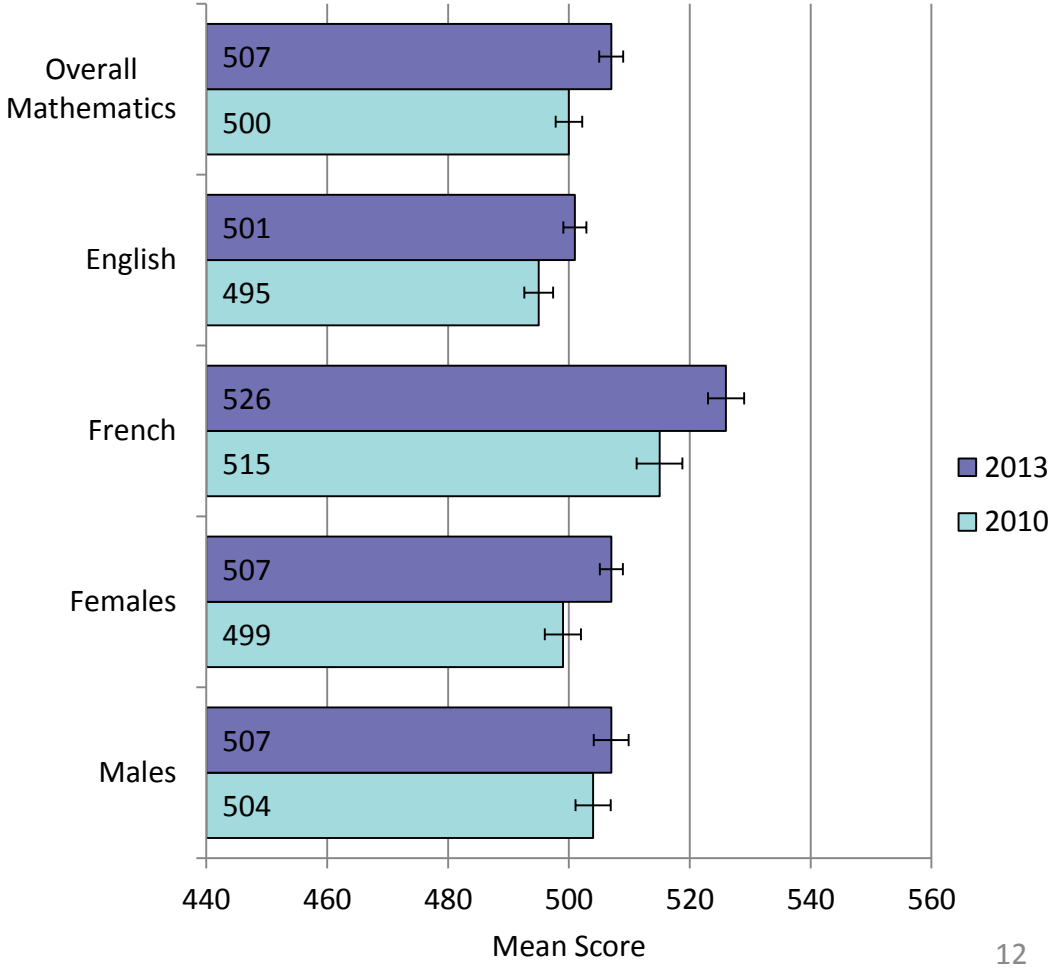
Between 2010 and 2013, there is either no change or a slight increase in achievement across Canada and in most jurisdictions.

	2013		2010		2007		Difference (2013–2010)	Difference (2013–2007)
	Mean	CI	Mean	CI	Mean	CI		
BC	502	3.4	499	3.7	495	4.1	3	7
AB	502	3.7	506	4.0	502	4.1	-4	0
SK	487	3.1	491	3.9	482	4.1	-4	5
MB	469	2.9	478	3.8	477	3.9	-9*	-8
ON	524	3.6	515	3.9	515	4.2	9*	9
QC	503	2.5	481	3.6	538	5.7	22*	-35*
NB	471	3.0	479	3.9	471	3.2	-8*	0
NS	488	3.2	489	4.0	483	4.1	-1	5
PE	494	4.4	481	9.0	471	4.6	13	23*
NL	495	3.8	486	5.2	478	4.1	9*	17*
CAN	508	2.0	500	2.2	512	2.3	8*	-4

*= significant difference

Mathematics comparison – 2010 and 2013

Between 2010 and 2013, there is a positive change for mathematics overall, in both English- and French-language schools, and for females.



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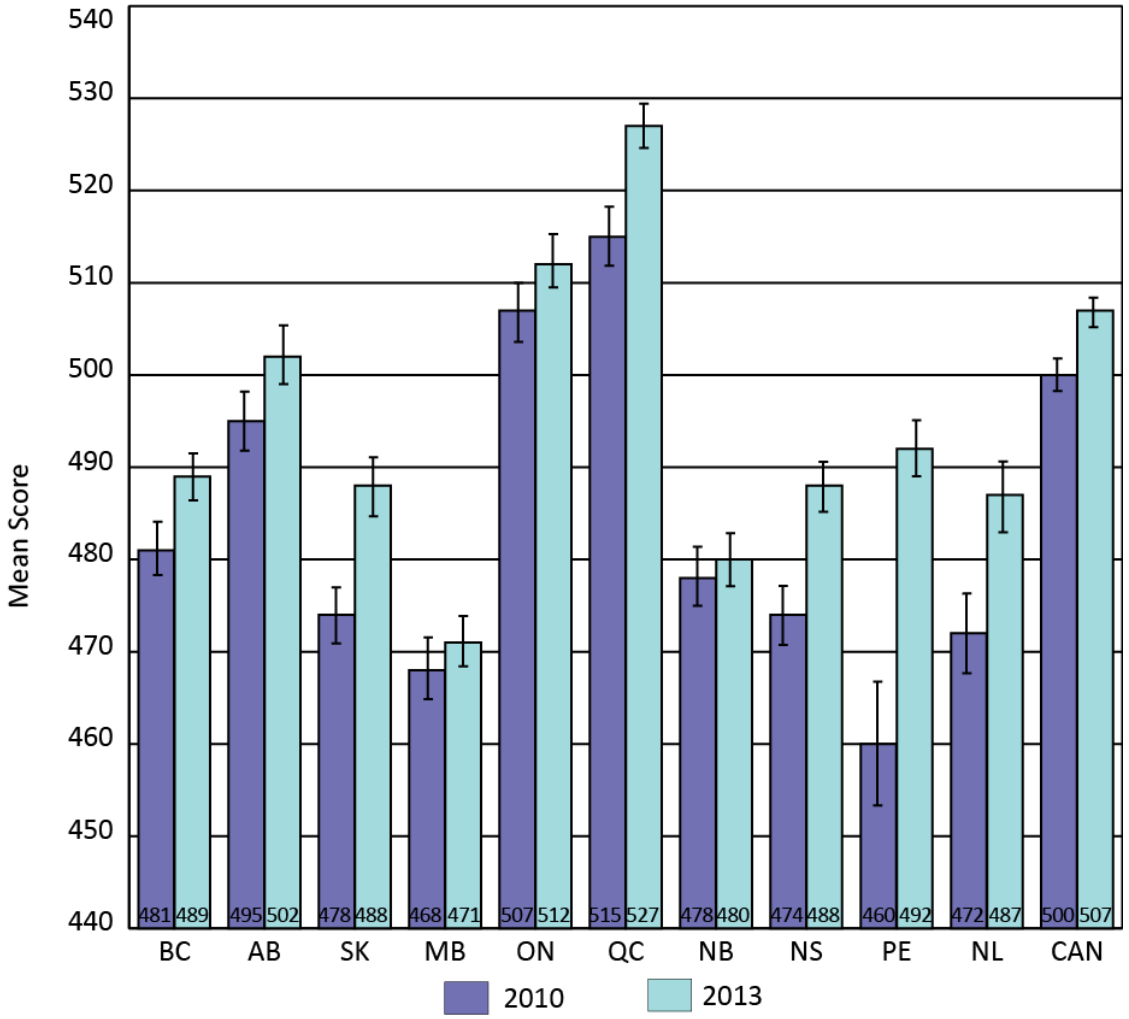
Mathematics comparison – 2010 and 2013 by jurisdiction

Between 2010 and 2013, there is a slight increase in achievement across Canada and in most jurisdictions.



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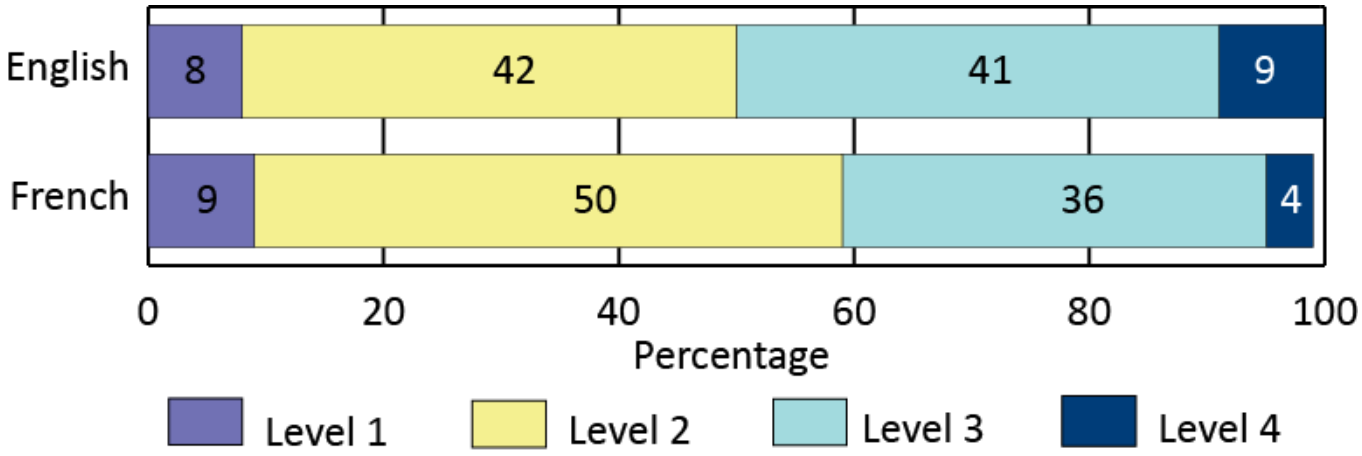
Pan-Canadian results in science by language

A higher proportion of students in English-language schools score at the higher levels of performance (levels 3 and 4).



Pan-Canadian results by language

In most provinces with English majority-language school systems, students in the English systems do better in science and reading than students in the French systems. The reverse is true in mathematics: students in the French systems tend to outperform their English counterparts. In Quebec, science and reading results are the same in English and French systems, while students in the French system do better than those in the English system in math.

	Majority-language system performs significantly better	Minority-language system performs significantly better	Equity between language systems
Science	**CAN**, AB, SK, MB, ON, NS		BC, QC, NB
Reading	**CAN**, AB, ON, NS	NB	BC, SK, MB, QC
Mathematics	ON, QC	**CAN**, BC, SK, NB, NS	AB, MB

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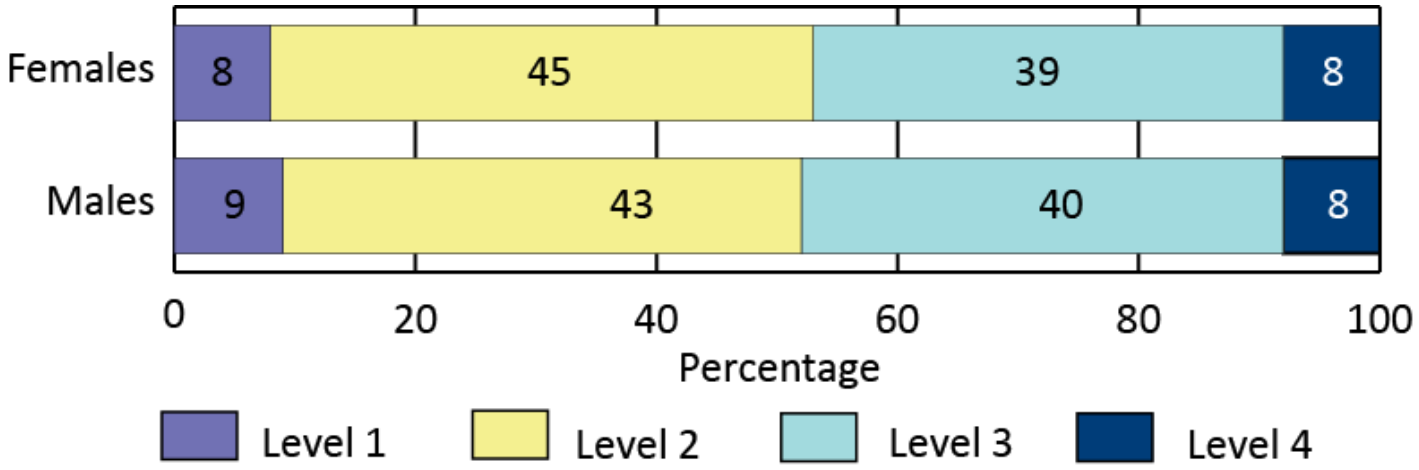
Pan-Canadian results in science by gender

A similar proportion of girls and boys achieve at the higher levels of performance (levels 3 and 4).



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Pan-Canadian results by gender

In Canada, there are few significant differences between the achievement of girls and boys in science and mathematics, but the gender gap in reading in favour of girls persists.

	Boys perform significantly better than girls	Girls perform significantly better than boys	Equity between boys and girls
Science	SK	AB	**CAN** and most provinces
Reading		**CAN** and all provinces	
Mathematics		PE	**CAN** and most provinces

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Conclusions

- Overall in Canada, 91 per cent of students are achieving the expected level of performance (baseline proficiency) in science.
- Almost half of Grade 8/Secondary II students are achieving above their expected level.
- Overall in Canada, females are outperforming males in reading; there is no significant gender difference for science and math.
- In most jurisdictions:
  - English-language school systems have higher achievement in science and reading;
  - French-language school systems have higher achievement in mathematics.
- In mathematics, PCAP data show an improvement in student achievement in most provinces across Canada between 2010 and 2013.
- In reading, performance was stable across Canada between 2007 and 2013 and showed some improvement between 2010 and 2013.

Conclusions (continued)

- The forthcoming PCAP 2013 Contextual Report will provide more information about how the context of learning impacts the results of students in Canada.
- The results of this assessment suggest that Canadian jurisdictions are addressing the demands and practices in science, and that the majority of students know and use their knowledge and skills in practical day-to-day activities.
- Overall, the PCAP testing reaffirms that CMEC's large-scale assessment projects offer innovative and contemporary direction on education policy, curriculum, and classroom practices.

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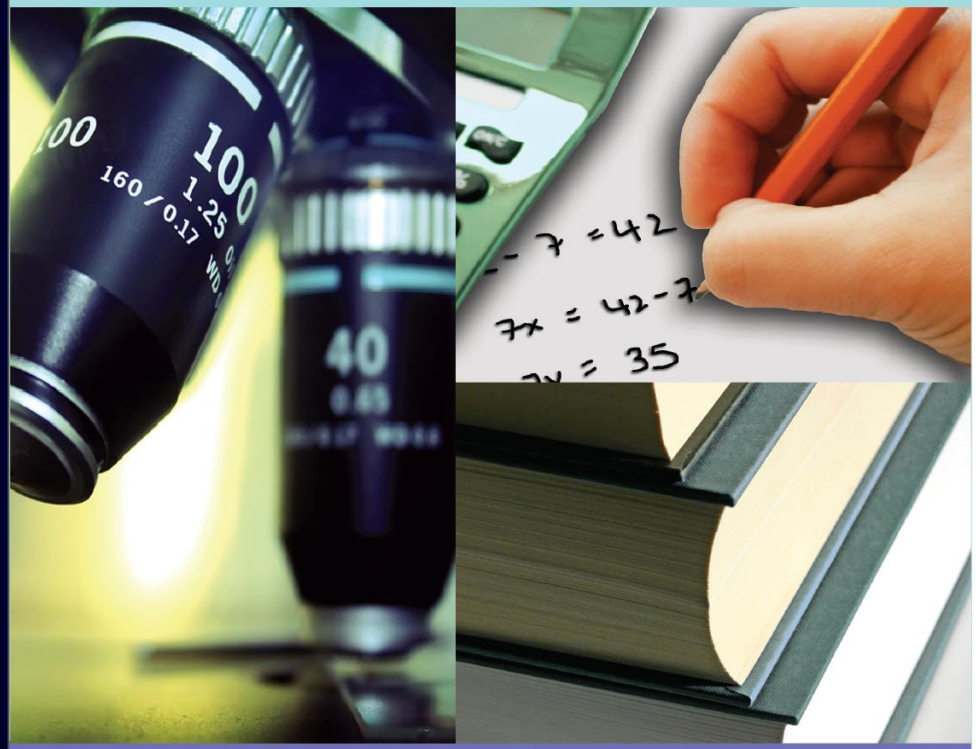

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