PISA 2012

Summary of results

December 2013
The Programme for International Student Assessment (PISA) is an international study that assesses and compares how well countries are preparing their 15-year-old students to meet real-life opportunities and challenges.

This study is an initiative of the Organisation for Economic Co-operation and Development [OECD].

Just over half a million students from 65 countries took part in PISA 2012. In New Zealand, over 5,000 students (4,291 for core PISA subjects, 958 for financial literacy) from 177 schools took part in the study, in July 2012.

Schools, and students within each school, were randomly selected to take part. An international consortium commissioned by the OECD to implement PISA was responsible for sampling schools and students in all PISA countries.

PISA an extremely valuable tool. The data provides insight into where attention and resources need to focus to support students, schools and teachers achieve the best outcomes for New Zealand.
Trend in New Zealand mathematics scores
Trend in Mathematics Proficiency levels

Percentage of students

- Below level 1
- Level 1
- Level 2
- Level 3
- Level 4
- Level 5
- Level 6
Relative performance on Mathematical processes

- New Zealand
- OECD average

Performance difference between the combined mathematics scale and each process subscale

Formulating
Employing
Interpreting

Combined mathematical scale average score

500
494
Relative performance on Mathematics content areas

New Zealand
OECD average

Performance difference between the combined mathematics scale and each content area subscale

Change and relationship
Space and shape
Quantity
Uncertainty and data

Combined mathematical scale average score
500
494
Trend in New Zealand reading scores

Average Reading literacy score

Year of Assessment

- New Zealand
- OECD
Trend in Reading Proficiency levels

Percentage of students

- 2009, 2012

**Below level 1b**, **level 1b**, **level 1a**, **level 2**, **level 3**, **level 4**, **level 5**, **level 6**, **below level 1**, **level 1**, **level 2**, **level 3**, **level 4**, **level 5 and above**
Trend in New Zealand science scores
Trend in Science Proficiency levels
Mathematics
Top 30 countries

New Zealand
Reading Top 30 Countries

New Zealand
<table>
<thead>
<tr>
<th>Country</th>
<th>Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand</td>
<td>516</td>
<td>2.1</td>
</tr>
<tr>
<td>Switzerland</td>
<td>515</td>
<td>2.7</td>
</tr>
<tr>
<td>Slovenia</td>
<td>514</td>
<td>1.3</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>514</td>
<td>3.4</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>588</td>
<td>2.0</td>
</tr>
<tr>
<td>Austria</td>
<td>590</td>
<td>2.7</td>
</tr>
<tr>
<td>Belgium</td>
<td>505</td>
<td>2.1</td>
</tr>
<tr>
<td>*Latvia</td>
<td>502</td>
<td>2.8</td>
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<tr>
<td>OECD average</td>
<td>591</td>
<td>0.5</td>
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<tr>
<td>France</td>
<td>489</td>
<td>2.6</td>
</tr>
<tr>
<td>Denmark</td>
<td>480</td>
<td>2.7</td>
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<tr>
<td>United States</td>
<td>487</td>
<td>3.8</td>
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<tr>
<td>Spain</td>
<td>496</td>
<td>1.6</td>
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<tr>
<td>*Lithuania</td>
<td>496</td>
<td>2.8</td>
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</tbody>
</table>

* Indicates above OECD average.
Overlapping of top performers in mathematics, reading and science

**OECD**

- Mathematics only: 4.4%
- Science only: 1.1%
- Reading only: 1.9%
- Reading, mathematics and science: 4.4%
- Mathematics and science: 2.3%
- Reading and science: 0.6%
- Non-top performers in any of the three domains: 83.8%

**New Zealand**

- Mathematics only: 3.1%
- Science only: 1.6%
- Reading only: 2.9%
- Reading, mathematics and science: 8.0%
- Mathematics and science: 2.3%
- Reading and science: 1.4%
- Non-top performers in any of the three domains: 79.0%
Trends in Mathematics 2003 - 2012 for boys and girls
Trends in Reading 2000 - 2012 for boys and girls
Trends in Science 2006 - 2012 for boys and girls
Trends in Mathematics 2003 - 2012
for different ethnic groups (multiple response)
Trends in Reading 2000 - 2012 for different ethnic groups (multiple response)

<table>
<thead>
<tr>
<th>Year</th>
<th>New Zealand</th>
<th>OECD</th>
<th>Māori</th>
<th>Pasifika</th>
<th>Asian</th>
<th>Pakeha</th>
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<tbody>
<tr>
<td>2000</td>
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<td>2009</td>
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<tr>
<td>2012</td>
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</tbody>
</table>
Trends in Science 2006 - 2012
for different ethnic groups (multiple response)
Some of the factors that make a difference to a student’s achievement

- Student motivation
- Better quality educational resources
- Quality teaching and covering the curriculum
- Being at school, on time, all the time
- Classroom environments where students can focus and learn
- Positive teacher-student relationships

Look out for further PISA publications in 2014
Between and within-school variation in mathematics achievement
Trends in Mathematics
New Zealand with selected countries that have decreased scores
Trends in Mathematics
New Zealand with selected countries that have *increased* scores
Trends in Reading
New Zealand with selected countries that have *decreased* scores
Trends in Reading New Zealand with selected countries that have *increased* scores

Average reading scores

- **Hong Kong-China**
- **New Zealand**
- **Singapore**
- **Shanghai-China**
- **United Kingdom**


Scores range from 420 to 580.
Trends in Science
New Zealand with selected countries that have *decreased* scores
Trends in Science
New Zealand with selected countries that have *increased* scores
Achievement and Equity in Achievement Outcome showing change for New Zealand to 2012

Source: OECD databases 2000-2012