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PISA 2025: national report for England

Research report

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Notes for readers

Readers who require a screen reader to read this report are advised to adjust settings to include reading aloud of punctuation marks as asterisks and subtraction signs are used throughout.

This report is based on the OECD International Database for PISA 2025 and is correct as of the 7th of July 2026.

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Executive Summary

Introduction

The Programme for International Student Assessment (PISA) assesses the knowledge and skills in science, reading and mathematics of 15-year-old pupils[1] in countries around the world. PISA is run by the Organisation for Economic Co-operation and Development (OECD), and the assessment is typically carried out every 3 years, allowing countries to chart how performance changes over time and across different countries. PISA 2022 was undertaken 4 years after the previous assessment in 2018 because of the global COVID-19 pandemic. PISA 2025 restores the 3-year cycle and involved 91 countries, including England – a full list of participants is in Chapter 1 Table 1.1.

This report, Volume 1 of the National Report for England, analyses their performance in the 3 subject domains of science, reading and mathematics. Science was the focused domain in 2025. Volume 2[2] will analyse their performance in computational problem solving, science subdomains, summarise responses to the PISA questionnaires, and explore further a selection of findings from Volume 1.

In England, 5,619 15-year-old pupils from 183 schools completed a 2-hour computer-based assessment and a pupil questionnaire. The assessment and questionnaire were completed between February and May 2025, and most pupils who took part completed their GCSE examinations in 2025, with the remainder doing so in 2026.

When reading this report, it is important to keep in mind that England's sample of participating pupils may not be entirely representative of all 15-year-old pupils in England. This is, to some degree, always the case with international studies such as PISA.

A Non-Response Bias Analysis (NRBA) of the participating schools in England's PISA 2025 sample suggested that the final set of participating schools was highly representative of the national distribution of schools in terms of several school-level characteristics. There was, however, some evidence that within those schools, non-responding pupils were slightly more likely to speak English as a first language, slightly more likely to have been eligible for free school meals at some point in the last 6 years of their education, and slightly more likely to receive a form of special educational needs support.

Both for England and for other participating countries, this means that results should be interpreted cautiously, particularly when considering trends in performance over time and when making international comparisons. More confident conclusions can be drawn when

[1] Refer to Chapter 1 in this Volume for a more detailed description of the PISA age range.
[2] Due for publication in December 2026.

making comparisons between groups of pupils within England, where we are not trying to generalise beyond our sample (see Chapters 5 and 6, for a fuller explanation).

The term ‘significant’ is used throughout this report to refer to statistically significant differences between scores or values. In this report, we use a ‘95% confidence level’ to define statistical significance, which means that there is less than a 1 in 20 chance that the finding is due to sampling or measurement error. Similarly, the term average, as in ‘average score’, is used to refer to the statistical mean for the relevant group, unless stated otherwise. The 35 OECD trend countries are those OECD countries in PISA 2025 that have participated in every cycle since PISA 2015, excluding Costa Rica and Spain. For Costa Rica and Spain, the data required for particular trend comparisons are not available across all cycles. For details about interpretation of PISA data, see Section 1.4.

Performance in science

Pupils in England achieved an average PISA science score of 516 in 2025, significantly above the OECD average of 482. There were 7 countries with average science scores that were significantly above England’s average score: the Beijing, Shanghai, Jiangsu, and Zhejiang regions in China (B-S-J-Z (China)), Singapore, Macao, Taiwan, Japan, Estonia and South Korea. In 2 countries pupils had average science scores that did not differ significantly from England: Canada and New Zealand. Pupils in the remaining 81 countries all scored significantly below England.

The average science score for pupils in England in 2025 (516) was significantly above the score of 503 in PISA 2022 but not significantly different from average scores in 2018 (507) and 2015 (512). Across OECD trend countries in 2025, performance in science (484) was not significantly different from average scores of 487 in 2022 and 489 in 2018. However, it is notable that the average science score in 2015 was 491 across OECD trend countries, significantly above the average science score in 2025 (484).

Most of the top-performing countries were from East Asia (B-S-J-Z (China) (597), Singapore (560), Macao (541), Taiwan (540), Japan (538), South Korea (526), and Hong Kong (496)). Pupils in B-S-J-Z (China) on average performed significantly above pupils in Singapore, who, on average, performed significantly above pupils in all other countries.

The European countries whose pupils had an average score significantly above the OECD average were Estonia (527), Finland (504), Switzerland (501), the Republic of Ireland (500), Austria (497), Poland (495), the Czech Republic (490), Belgium (490), and Lithuania (488).

PISA also describes performance in terms of proficiency, with higher proficiency levels representing better knowledge and skills in the subject domain. The percentage of pupils in England who performed at the highest proficiency levels (Level 5 or 6) was 14%, which was significantly larger than the OECD average of 7%. The percentage of pupils in

England who performed at the lowest proficiency levels (below Level 2) was 16%, which was significantly smaller than the OECD average of 26%.

Performance in reading

Pupils in England achieved an average PISA reading score of 497 in 2025, significantly above the OECD average of 461. Pupils in 3 countries (Singapore, B-S-J-Z (China), and Taiwan) achieved average reading scores significantly above the average score for pupils in England. In 7 countries, pupils had average scores that did not significantly differ from the average in England. Pupils' average reading scores in the remaining 79 participating countries were significantly below than that in England.

The average score for pupils in England in reading in 2025 was not significantly different from average scores in previous cycles. However, most higher-performing countries experienced significant declines in their pupils' average reading scores between the 2022 and 2025 cycles. The OECD trend average also declined significantly over this period, from 477 in 2022 to 463 in 2025.

In terms of PISA's reading proficiency levels, the percentage of pupils in England who performed at the highest proficiency levels (Levels 5 or 6) was 10%, which was significantly larger than the OECD average of 6%. The percentage of pupils working at the lowest proficiency levels (below Level 2) in England was 19%, which was significantly smaller than the OECD average of 31%.

Performance in mathematics

Pupils in England achieved an average mathematics score of 492 in PISA 2025, which was significantly above the OECD average of 463. Pupils in 9 countries had average mathematics scores that were significantly above the average score of pupils in England: B-S-J-Z (China), Singapore, Macao, Taiwan, Japan, South Korea, Hong Kong, Estonia and Switzerland. Pupils in Canada had an average mathematics score (485) that was not significantly different to the average score of pupils in England. Pupils in the remaining 79 countries all had average mathematics scores significantly below that of pupils in England.

In 2025, the average mathematics score achieved by pupils in England (492) was significantly below the average mathematics score achieved in PISA 2018 (504) but was not significantly different from the average scores that pupils achieved in 2022 (492) and 2015 (493). However, the average mathematics score across the OECD trend countries in 2025 (465) was significantly below the average mathematics trend scores (for the same population) in 2022 (475), 2018 (490) and 2015 (487).

The percentage of pupils in England who performed at the highest proficiency levels (5 or 6) in 2025 was 14%, which was significantly larger than the OECD average of 8%. The

percentage of pupils in England working at the lower proficiency levels (below 2) was 25%, significantly smaller than the OECD average of 35%.

Variations in PISA scores by pupil characteristics

Pupils' PISA scores in science, reading, and mathematics were analysed by gender and socioeconomic status.

In England there was a significant gap (–13 score points)[3] between the performance of girls and boys in science in 2025 (509 compared with 522). By contrast, there was no significant difference between girls' and boys' science scores in England in 2022, 2018 or 2015.

Girls' science performance in England was stable over the last 4 cycles, while boys' science scores in 2025 were significantly above the scores in 2018 and 2022. This has contributed to the significant widening of the gender gap in science in England between 2015 and 2025.

In England, the average reading score for girls in 2025 (503) was not significantly different from the 2022 or 2015 cycles but it was significantly below the average score in 2018 (515), whereas the average score for boys in 2025 revealed no significant difference from scores in the previous 3 cycles. The significant gap in reading scores between girls and boys has been persistent (significant in each cycle) but has narrowed over time from 23 points in 2015 to 11 points in 2025.

For mathematics, the average score for England's girls in 2025 (478) was not significantly different from the corresponding scores in 2022 or 2015 but, like reading, it was significantly below the average score in 2018 (498). Boys' average mathematics scores remained stable with no significant differences between 2025 (504) and the corresponding scores for each of the previous 3 cycles. In England, the average mathematics score for girls was significantly below the score for boys in each of the latest 4 cycles. Between 2015 and 2025 there was a significant widening of the gap from –12 points to –26 points respectively.

In terms of socioeconomic status, there was an 81 score point difference in science performance between the most disadvantaged group and least disadvantaged group in England. This was not significantly different from the OECD gap of 85 score points. For reading, the gap in performance between the most disadvantaged group and least disadvantaged group was 66 score points, significantly narrower than the OECD average (78 points). Finally, in mathematics, the performance gap between the same groups (most

[3] Gender gap was calculated as girls' score – boys' score. A negative number indicates a gender gap favouring boys.

and least disadvantaged) in England was 89 score points, not significantly different from the range for the OECD average (83 points).

Pupils in England who were eligible for free school meals (FSM) achieved average scores in science, reading and mathematics significantly below scores for pupils who were not eligible.

The average reading and mathematics scores for pupils in England with a second-generation immigration background were significantly above the average scores for both first-generation immigrant pupils and non-immigrant pupils. For science, while this was also the case comparing pupils with a second-generation immigration background with pupils with a first-generation background, there was no significant difference in science scores between pupils with a second-generation immigration background and non-immigrant pupils.

PISA in the UK

In 2025, pupils in England achieved average scores in science, reading and mathematics that were significantly above the corresponding scores in Northern Ireland, Scotland and Wales. Each UK country saw a stable trend over time in science with no significant difference in pupils' average score between PISA 2015 and 2025.

Gender differences in PISA 2025 were consistent across the 4 countries for reading with girls achieving a significantly higher average score than boys. In mathematics, there were significant gender gaps favouring boys in pupils' average scores in each country except Northern Ireland, where there was no significant difference between girls' and boys' scores. In science, there was a significant gender gap in favour of boys in England but no significant difference between girls' and boys' science scores in Northern Ireland, Scotland and Wales.

As in previous cycles, pupils from less disadvantaged socioeconomic backgrounds performed better than their peers from more disadvantaged backgrounds across all domains and all countries.

1 Introduction to PISA

1.1 What is PISA?

The Programme for International Student Assessment (PISA) is a study of 15-year-old pupils around the world organised by the Organisation for Economic Co-operation and Development (OECD). PISA assesses the knowledge and skills that are considered necessary for participation in social and economic life, specifically in science, reading and mathematics. PISA also offers participation in optional innovative domain assessments. In 2025 this domain was Learning in the Digital World in which England participated. PISA is typically carried out every 3 years; however, PISA 2022 was undertaken 4 years after the previous assessment in 2018 because of the global COVID-19 pandemic. PISA 2025 restores the 3-year cycle.

Pearson delivered the PISA 2025 study on behalf of the DfE (Department for Education, England). The Oxford University Centre for Educational Assessment (OUCEA) and UCL Institute of Education (IOE) led on the analysis and reporting for England.

The data for England was collected as part of a wider collaborative effort with the other nations of the United Kingdom, and although this report focuses on England, the OECD reports on the UK as a whole.

To enable countries to identify and monitor trends in pupils' performance over time, each PISA subject score is presented on a scale that is comparable over PISA cycles. Each participating country receives detailed results, allowing them to understand how different groups of pupils performed (such as pupils from different socioeconomic backgrounds). PISA data also enables governments to benchmark education policy and performance, make evidence-based decisions and learn from policies and practices in other countries.

In this chapter, we present an overview of the PISA study. First, we present information about other countries that participated in PISA and a description of England's past participation. We then provide a guide to interpreting the PISA results, including details of the study design, data collection and analysis. Finally, we conclude with an overview of the structure of this report.

1.2 Who participated in PISA?

The number of OECD countries, associate or partner countries and economies (education systems)[4] participating in PISA, has increased from 43 in the initial cycle in 2000 to 91[5] in

[4] For the purpose of this report, the term country is used for each participant unless specific reference is made to an education system.
[5] This included 1 country with performance estimates for pupils in science but not reading or mathematics.

the current PISA 2025 cycle (OECD, 2025)[6], and more than 760,000 pupils participated worldwide. Of the 91, 38 were OECD members, including the UK. All participants are shown in Table 1.1 below.

[6] See OECD (2025) Countries and economies that have participated in PISA to date

Table 1.1 OECD member, associate or partner countries participating in PISA 2025

Continents	OECD member countries	OECD associate or partner countries
Africa		Egypt, Kenya, Mauritius, Morocco, Rwanda, Zambia
Asia	Israel, Japan, South Korea, Türkiye*	Armenia, Azerbaijan*, Brunei, Cambodia, China**, Hong Kong, Indonesia, Kurdistan Region (Iraq), Jordan, Kazakhstan*, Kyrgyzstan, Lebanon, Macao, Malaysia, Mongolia, Palestinian Authority, Philippines, Qatar, Saudi Arabia, Singapore, Taiwan, Tajikistan, Thailand, United Arab Emirates, Uzbekistan, Vietnam
Australasia	Australia, New Zealand	
Europe	Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom	Albania, Bulgaria, Croatia, Georgia*, Kosovo, Malta, Moldova, Montenegro, North Macedonia, Romania, Serbia, Ukraine**
North America	Canada, Costa Rica, United States	Dominican Republic, El Salvador, Guatemala
South America	Chile, Colombia, Mexico	Argentina, Brazil, Ecuador, Paraguay, Peru, Uruguay

Countries and education systems marked with an asterisk (*) are transcontinental, situated partly in Asia and partly in Europe.

Countries and education systems marked with an asterisk (**) include sub-regions only. For China, 4 regions took part in PISA 2025 (Beijing, Shanghai, Jiangsu, and Zhejiang, abbreviated as B-S-J-Z (China)). For Ukraine, 17 out of 27 regions took part in PISA 2025.

Source: OECD, PISA 2025

1.2.1 England's participation in PISA

In England, 5,619 15-year-old pupils[7] from 183 schools completed a 2-hour on-screen assessment and a pupil questionnaire that took approximately 30 minutes to complete. Headteachers at participating schools were also asked to complete a questionnaire, asking about the context of their school, staff and pupils. A combination of year 11 and year 10 pupils in England completed the assessments and questionnaires between February and May 2025. Around two-thirds were year 11 who completed their GCSE examinations in 2025. The remainder were year 10 pupils who completed their GCSE examinations in 2026. England has participated in all cycles since the first PISA study in 2000.

1.3 What does PISA measure?

Although science, reading and mathematics are always assessed, each cycle of PISA focuses on one of these 3 areas in particular – this is referred to as the 'major domain'. For PISA 2025, the major domain was science, as it was in 2015 and 2006, with reading and mathematics both minor subject domains. PISA 2025 also included an assessment of Learning in the Digital World. This measured pupils' 'capacity to engage in an iterative process of knowledge building and problem solving using computational tools'[8].

1.3.1 The PISA 2025 assessment frameworks

Pupils' performance was assessed using measures outlined in the science, reading and mathematics frameworks. The frameworks describe the competencies developed by science, reading and mathematics education and pupils' knowledge required to exhibit these competencies. The competencies define what is considered important for young people to know, value, and be able to do in situations requiring the use of scientific and technological knowledge, mathematical knowledge and reading knowledge. Science used an updated framework in 2025 while the reading and mathematics frameworks remained unchanged from the PISA 2022 cycle. Compared with 2015, when science was last the major domain, the science assessment framework has been broadened. The focus on the concept of 'science literacy' in 2015 has been replaced with a focus on the general outcomes of science education, bringing it in line with the reading and mathematics frameworks. The PISA 2025 science framework[9] is available on the OECD website, which includes examples of science assessments.

The science framework describes the:

[7] The OECD (2025) PISA 2025 Technical Standards state that the PISA Target Population comprises students aged between 15 years and 3 (completed) months and 16 years and 2 (completed) months at the beginning of the testing period.
[8] See OECD (2025) Learning in the Digital World
[9] See OECD (2025) PISA Framework for Science

- 3 main science competencies and a subset of 3 environmental science competencies that are developed through science education
- 3 types of knowledge required to develop these competencies
- 3 main contexts in which students will use the competencies
- aspects of science identity that are considered important, such as awareness of, and concern for, the environment

Science competencies

The 3 science competencies[10] are:

- **explain phenomena scientifically**: retained from PISA 2015, this requires pupils to recognise, produce, apply, and evaluate explanations and solutions for a range of natural and technological phenomena and problems
- **construct and evaluate designs for scientific enquiry and interpret scientific data and evidence critically:** a merger of 2 previous competencies in PISA 2015 ('Evaluate and design scientific enquiry' and 'Interpret data and evidence scientifically'), this requires pupils to construct, appraise, and evaluate scientific investigations
- **research, evaluate and use scientific information for decision making and action:** a new competency for 2025, this requires pupils to critically assess the credibility of scientific information, both genuine and claimed

The new framework also emphasises pupils' environmental awareness and agency by introducing 3 environmental science competencies[11]:

- explain the impact of human interactions with Earth's systems
- make informed decisions to act based on evaluation of diverse sources of evidence and application of creative and systems thinking to regenerate and sustain the environment
- demonstrate hope and respect for diverse perspectives in seeking solutions to socio-ecological crises

These competencies recognise the influence and substantial impact, both past and present, that humans have had on the Earth.

[10] See OECD (2025) PISA Framework for Science
[11] See OECD (2025) PISA Framework for Science

Science knowledge

In both PISA 2015 and 2025, pupils needed 3 types of knowledge to develop these science competencies[12], namely:

- **content:** knowledge and understanding of scientific ideas and theories, assessed through:
    - 3 major areas: physical systems, living systems, and Earth and space systems
- 4 major fields: physics, chemistry, biology, and Earth and space sciences[13]
- **procedural:** knowledge of the standard procedures and practices that scientists use to obtain reliable and valid data
- **epistemic:** knowledge of constructs and features that are essential to producing knowledge in science and justifying this, such as the importance of repeating measurements

Science contexts

Competencies and knowledge were assessed using a series of contexts seen as generally consistent with how scientific literacy was applied in the previous PISA frameworks'[14]. The focus of assessment items was in situations relating to:

- the self, family, and peer groups (personal)
- the community (local and national)
- life across the world (global)

The application of science and technology in the 3 contexts above was primarily assessed using the topics below:

- health and disease
- natural resources
- environmental quality (including environmental impacts and climate change)
- hazards
- frontiers of science and technology (including contemporary advances and challenges)

[12] See OECD (2025) PISA Framework for Science for full definitions.
[13] The framework uses the term "systems" instead of "sciences" in the content knowledge descriptors, as pupils must understand concepts from the physical and life sciences, Earth and space sciences, and their application. See OECD (2025) PISA Framework for Science
[14] See OECD (2025) PISA Framework for Science

The extent to which the competencies, knowledge and contexts represented in the PISA science framework reflect the National Curriculum for science in England is set out in Chapter 2 Section 2.3.

Other PISA assessments

Alongside assessments in science, pupils undertook assessments in:

- **reading**: the 'capacity to understand, use and reflect on written texts to achieve personal goals, develop knowledge and potential, and participate in society'[15]
- **mathematics**: the 'capacity to reason mathematically and to formulate, employ, and interpret mathematics to solve problems in a variety of real-world contexts. It includes concepts, procedures, facts, and tools to describe, explain, and predict phenomena. It helps individuals know the role that mathematics plays in the world and make the well-founded judgments and decisions needed by constructive, engaged and reflective 21st Century citizens'[16]
- **Learning in the Digital World**: the 'capacity to engage in an iterative process of knowledge building and problem solving using computational tools…demonstrated by effective self-regulated learning while applying computational and scientific inquiry practices'[17]

1.3.2 The PISA questionnaires

Alongside the PISA assessments in science, reading, mathematics and Learning in the Digital World, participating schools and pupils were asked to complete questionnaires. The pupil questionnaire requested information about participating pupils' background (including their parents' occupation as part of the socioeconomic status measure); their attitudes (such as to learning); feelings towards school; educational experiences and future aspirations.

As science was the major domain for PISA 2025, pupils were also asked to report on their experiences and attitudes to science in greater detail. In 2025, there was a change in emphasis on affective factors (such as attitudes and motivations) with the introduction of 'science identity'. This centred on the importance of pupils' 'agency and active citizenship in a rapidly changing world' alongside their development of competencies and knowledge[18]. These were assessed using a questionnaire.

The school questionnaire requested information from headteachers about the school climate, resources and any perceived barriers to learning.

[15] See OECD 2025 Reading Performance (PISA)
[16] See OECD PISA 2025 Assessment and Analytical Framework
[17] See OECD PISA 2025 Learning in the Digital World
[18] See OECD (2025) PISA Framework for Science

1.3.3 The PISA assessment

The OECD iteratively reviewed proposed test items (questions) using different local and international experts. The field trial process, which took place in March 2024 in the UK, ensured that the assessment items met PISA's Technical Standards[19] and were suitable for inclusion in the main data collection. This was repeated across all participating countries to ensure that the items met these standards and were comparable across education systems.

PISA takes a complex approach to the design and administration of the assessment. This differs from more conventional assessments, such as GCSE examinations, where every pupil takes the same test with the same items, and the cohort's average performance is an aggregation of these individual pupil performances. The assessment itself was computer-based[20] and employed multi-stage adaptive testing (for science, reading and mathematics). An adaptive test is one which automatically selects items to suit the ability of the person taking it. This meant that pupils were presented with 'blocks' of items that were selected based on their performance on preceding question blocks. Consequently, not every pupil answered the same questions[21].

1.3.4 PISA study design and sampling

It is impractical for the PISA assessment to be administered to every single pupil in each participating country. Participating countries therefore assessed a sample of eligible pupils. The OECD employed a two-stage sampling method to ensure that the pupils chosen to take part in the study were representative of the national pupil population. The first stage was to sample schools, the second to sample pupils within the selected schools. Countries that participated in PISA were required to adhere to strict international sampling procedures which facilitate sample comparability. Figure 1.1 illustrates this process for England.

[19] See OECD (2025) PISA 2025 Technical Standards
[20] Some countries used paper based tests: Cambodia, Kurdistan Region (Iraq), Mauritius, Rwanda, Tajikistan, and Zambia.
[21] See OECD (2023) PISA 2025 Integrated Design

Figure 1.1 PISA 2025 sampling procedure for England

Step	Process
Step 1	The sampling process for PISA 2025 required England to select a representative sample of 200 secondary schools
Step 2	Special schools, Alternative Provision, Pupil Referral Units and foreign language schools were excluded
Step 3	The OECD selected 2 replacement schools with similar characteristics to each sampled school. They were asked to take part if sampled schools opted out
Step 4	Within each selected school, a sample of 40 pupils, with an average age of 15, was chosen to take part
Step 5	In England, 5,619 pupils from 183 schools took part in PISA 2025

In line with this procedure, a sample of secondary schools was selected to take part in PISA 2025. Schools were selected to represent the different geographical regions within England, the different types of school that pupils may attend (for example, maintained or independent), and a range of academic attainment at the school level (based on the GCSE performance of previous pupil cohorts).

Within each participating school, a random sample of 40 eligible pupils[22] was selected to take the assessment. Most of these pupils were in year 11. With any sample, some sub-populations may be under- or over-represented once the final data is obtained. It is important to note that the PISA design counteracts this, as far as is possible, through statistical methods (sample weighting)[23]. The response rates for England in relation to these Technical Standards are discussed in Chapter 1, Section 1.4.7.

1.4 Interpreting data from PISA: a reader's guide

This section provides information and context for interpreting England's results in PISA 2025.

1.4.1 Sampling and measurement errors

The PISA 2025 data for England was based upon a sample of pupils rather than a census of all pupils. This means that there is a degree of uncertainty in the findings because, however carefully selected the sample, there is always at least some chance that it does not fully represent the overall population of pupils. This uncertainty is described as 'sampling error'. This does not mean a mistake has been made however, it is present in all

[22] 40 pupils were selected from each school unless there were fewer than 40 eligible pupils in a school.
[23] See OECD (2025) PISA 2025 Technical Standards

research which relies on the analysis of data taken from a sample. Another source of uncertainty is 'measurement error', which relates to the extent to which an individual pupil's performance on the PISA test reflects their true ability. Measurement error occurs because a pupil's score may be influenced by factors that are unrelated to their ability, such as their interpretation of the items that they respond to or their level of motivation on the day of the test.

1.4.2 Statistical significance

To contextualise and account for this uncertainty, statistical analysis of the differences between countries and groups of pupils is undertaken in this report to determine whether they are 'statistically significant'. Statistically significant differences are unlikely to be the result of either sampling or measurement error and are likely to reflect a true difference between the countries or groups being compared. In this report, we use a '95% confidence level' to define statistical significance, which means that there is less than a 1 in 20 chance that the finding is due to sampling or measurement error. For clarity of writing, the term 'significant' is used throughout this report to refer to statistically significant differences between scores or values. Similarly, the term average, as in 'average score', is used to refer to the statistical mean for the relevant group, unless stated otherwise.

Due to rounding, the significance of data presented may be affected. For example, when comparing the difference between 2 percentages, in one case a reported percentage may be significantly different from another percentage, but in another case it may not be significantly different even though the percentage is the same.

1.4.3 Rank order

Caution should be taken when considering the 'rank order' of countries who participated in PISA as it is not based on statistically significant differences. This is because it can be affected by variation in the number of countries participating in each cycle, for example, fewer countries participating in the latest cycle may cause a country's position in a rank order to be higher compared with the previous cycle. In addition, the two forms of uncertainty discussed above mean that, were the test to be retaken, there would likely be differences in the average scores of each country that would cause the rank order of performances to change. This report therefore focuses on statistically significant differences between countries and groups, providing greater confidence that findings are robust.

1.4.4 Comparing pupil groups

It is important to note that test items may not be equally difficult for pupils from different socio-cultural or language backgrounds, or across countries and translations. Previous

research[24] suggests that some test items may not have necessarily performed in a comparable manner across different countries and languages, thus potentially undermining the comparability of results. Although pupils taking part in PISA were the same age range, their educational experiences may have differed depending on what point in the academic year they took the tests. Across the UK (not including Scotland), there were different testing windows:

- Wales and Northern Ireland (September to October 2025)
- England (February to May 2025: approximately two-thirds of pupils who were in year 11 and one-third who were in year 10)

During PISA 2025's development, the OECD made every effort to ensure that comparisons between countries and translations can be validly made. However, the cross-country comparisons presented in this report should still be cautiously interpreted, especially when comparing countries with different languages[25].

1.4.5 Statistical terms

The following measures are referred to in the report:

Interdecile ranges

The spread of performance in each country can be examined by looking at the distribution of scores with percentiles, which are calculated by dividing data into 100 equal parts and deciles into 10 equal parts, as illustrated in Figure 1.2. The score at the 90th percentile is the score above which the highest-performing 10% of pupils attain (pupils in the highest-performing decile), while the 10th percentile is the score below which the lowest-performing 10% of pupils attain (pupils in the lowest-performing decile). The difference between the highest- and lowest-performing pupils at the 90th and 10th percentiles is described as the interdecile range (the difference between pupils in the highest-performing and lowest-performing deciles). This is a better measure of the spread of scores when comparing countries than using the very highest- and very lowest-performing pupils, as the latter comparison may be affected by a small number of pupils with unusually high or low scores.

Interquartile ranges

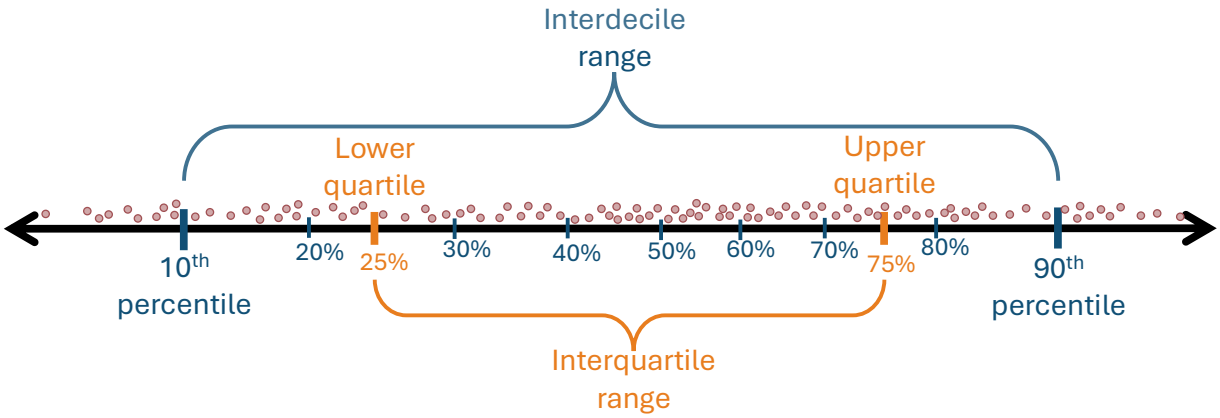
In Chapter 6, the spread of pupils' performance is also measured using the OECD's economic, social and cultural status (ESCS) index. Pupils completed a questionnaire that

[24] Kreiner S and Christensen KB. (2014) 'Analyses of Model Fit and Robustness. A New Look at the PISA Scaling Model Underlying Ranking of Countries According to Reading Literacy.' *Psychometrika*., 79(2), pp.210-231. and Rutkowski, L. and Rutkowski, D. (2016) 'A Call for a More Measured Approach to Reporting and Interpreting PISA Results.' *Educational Researcher*, 45(4), pp.252-257.

[25] For more information on how PISA measures pupils' success at school please see What is PISA data and how does it measure students' success at school? – The Education Hub

asked them about their parents' education, occupation and home possessions. Using their responses, pupils were allocated to one of 4 ESCS Quartiles (with 25% of pupils in each). The most disadvantaged 25% of pupils were placed in Quartile 1 and the least disadvantaged 25% of pupils in Quartile 4. In this report, comparisons are made between the relative performance of pupils in Quartiles 1 and 4 using their average scores. The interquartile range is used to determine the spread of performance between the least (Quartile 4) and most (Quartile 1) disadvantaged pupils by subtracting the Quartile 1 average score from the Quartile 4 average score (Quartile 4 average score – Quartile 1 average score).

Figure 1.2 Calculating interdecile and interquartile ranges



Gender gap

In Chapter 5 the score difference between girls and boys is described as the gender gap. This was calculated by subtracting the average score for boys from the average score for girls. Although pupils were asked what their sex was in the pupil questionnaire, gender is referred to in this report to maintain consistency with the PISA 2025 national reports for Northern Ireland and Wales, and the OECD PISA Assessment and Analytical Framework.

Higher-performing countries

Where the report refers to higher-performing countries this refers to all participating countries with average scores over 440 in PISA 2025. The countries in this category will differ by subject domain.

Periods studied and trends over time

The report analyses findings from PISA 2025 and the changes over time since PISA 2015, the last PISA cycle in which science was the focus. Trends are reported as:

- a stable trend is reported where there was no significant difference in scores over time

- a downward trend refers to a significant decrease in PISA scores over a specified period
- an upward trend refers to a significant increase in PISA scores over a specified period

1.4.6 PISA and the COVID-19 pandemic

The pandemic caused widespread disruption to schools, teaching and learning, which included significant periods of time when school buildings were closed. Remote instruction or distance learning resources were made available in line with government guidance at the time. Schools also offered a range of programmes and types of support to pupils whose learning and wellbeing were affected. However, the impact of this disruption varied between regions, schools and individual pupils within those schools, as well as between different countries. Given this complexity, it is not possible to ascertain precisely how the COVID-19 pandemic affected performance in the PISA 2025 or 2022 assessments for those who were able to participate, or how it may have affected their responses to the questionnaires.

Data collection for PISA 2022 (the administration of the assessment and the questionnaires) had originally been planned for 2021 but was delayed by 12 months due to the COVID-19 pandemic. Although data collection was undertaken in November and December of 2022, the ongoing situation had an impact on recruitment, retention and pupil engagement.

This is important in the context of PISA 2025 as:

- trend comparisons are made in this report between the performance of pupils tested for PISA 2022 and other PISA cycles
- pupils tested in PISA 2025 may have also been affected by the disruption to learning caused by the COVID-19 pandemic when they were 10–11 years old and approaching the end of their primary schooling

1.4.7 PISA 2025 response rates for England

Exclusion rate

The overall exclusion rate for schools in the UK[26] was 7.6% (above the 5% OECD target). This marks an upward trend (UK[27] exclusion rates were 4.9% in 2022 and 5.4% in 2018), however, the OECD has confirmed that the PISA 2025 results can be fully included in reports and used for international and trend comparisons.

[26] UK minus Scotland
[27] UK minus Scotland

Participation rate

PISA requires a country's final weighted school response rate to be at least 85% of sampled eligible and non-excluded schools. For England, the final weighted response rate was 90% (up from 78% following the use of replacement schools), meeting this threshold. Similarly, the final weighted pupil response rate should be at least 80% of all sampled pupils across responding schools. For England, the final weighted pupil response rate was 83%, meeting the target.

Response bias

A voluntary Non-Response Bias Analysis (NRBA) was undertaken to understand, among other things, differences between responding and non-responding schools and between originally sampled schools and replacement schools. The purpose of this analysis was to establish the extent to which the final sample of pupils represented the population of pupils in England. The key findings of the NRBA, and what they mean for interpreting England's PISA 2025 results are described briefly below, and a full report of the analysis can be found in Appendix A.

For England, the NRBA showed that the sample of participating schools was highly representative of the national distribution of schools in terms of several school-level characteristics. There was, however, some evidence that within those schools, non-responding pupils were slightly more likely to speak English as a first language, slightly more likely to have been eligible for free school meals at some point in the last 6 years of their education, and slightly more likely to receive a form of special educational needs support. Both for England and for other participating education systems, this means that results should be interpreted cautiously, particularly when considering trends in performance over time and when making international comparisons. More confident conclusions can be drawn when making comparisons between groups of pupils within England, where we are not trying to generalise beyond our sample (such analysis takes place in Chapters 5 and 6).

1.4.8 Selection of comparator countries

Given the large number of countries that participated in PISA 2025, it is necessary to be selective when making international comparisons. For this report, 5 countries have been selected for comparison to England, namely: Australia, Canada, Estonia, the Republic of Ireland and Singapore. This is on the basis that they provide valid, meaningful and valuable comparisons, serving to contextualise the performance of pupils from England. Australia, Canada, the Republic of Ireland and Singapore were also comparators in the PISA 2022 report.

The report compares information about England's performance to the OECD average performance which has been selected for such comparisons, rather than the average for

all countries which participated in PISA 2025. This is because the countries used to calculate the OECD average are more economically comparable to England and have participated in PISA more consistently over time.

The number of countries which are part of the OECD has increased over time affecting the calculation of averages. To ensure comparisons are consistent and not unduly distorted by countries which are included or excluded in a given comparison, the OECD has calculated different averages. These include different sets of countries, allowing for accurate comparisons of change over time to be made.

This report compares the performance of England's pupils to 2 OECD averages, depending on the most appropriate comparison. These are the:

- **OECD average** – the average of all 38 OECD countries (including the UK) which participated in the 2025 cycle
- **OECD trend average** – the average across the 35[28] OECD member countries which took part in 2015, 2018, 2022 and 2025 (including the UK) and have results included in the international reports for each cycle

1.5 Organisation of this report

The rest of this Volume 1 report is divided into 7 main chapters with the NRBA included as an appendix:

- chapters 2 to 4 focus on England's performance in PISA science, reading and mathematics
- chapters 5 to 6 focus on the themes of Equity and Inclusion, presenting performance by pupil characteristics, such as gender and socioeconomic status
- chapter 7 focuses on similarities and differences in pupil assessment outcomes across the participating countries in the UK
- chapter 8 concludes Volume 1 and looks forward to Volume 2

Each chapter generally includes information on the distribution of pupils' test scores by pupil and school characteristics, and an overview of how England's performance has changed over time in relation to other participating countries.

[28] Of the 38 OECD member countries participating in PISA in 2025, none participated for the first time. Of these 38, only Luxembourg did not participate in each of the PISA cycles as it was absent in 2022. It is therefore not included in the trend average. Spain and Costa Rica are also excluded from the trend average as they did not meet the participation standards across every cycle.

Volume 2 comprises chapters on Learning in the Digital World, selected science subdomains and questionnaire responses. Volume 2 will also present a conclusion to both volumes.

2 Performance in science

2.1 Chapter overview

This chapter reports on the performance of pupils in England in the science domain in PISA 2025. It draws on findings outlined in the international report (OECD, 2026) and places outcomes for England's pupils in the context of those findings. This performance is considered alongside that of previous cycles: PISA 2022, 2018, and 2015. It outlines how the performance of pupils in England in 2025 compares with that of pupils in other participating countries, as well as how performance has changed over time. Science was assessed using the science framework developed specifically for PISA 2025.

2.2 Key findings

- Pupils in England achieved an average score of 516 in science in PISA 2025, which was significantly above the OECD average of 482.
- There were 7 countries where pupils' average science scores were significantly above that in England: the Beijing, Shanghai, Jiangsu, and Zhejiang regions in China (B-S-J-Z (China)), Singapore, Macao, Taiwan, Japan, Estonia and South Korea. Two countries had average science scores that did not differ significantly from England: Canada and New Zealand. In each of the remaining 81 countries, the pupils' average score was significantly below that in England.
- Pupils in England's average science score of 516 in PISA 2025 was significantly above the score of 503 in PISA 2022. The average score in PISA 2025 was not significantly different from the average scores of 507 in PISA 2018 and 512 in PISA 2015.
- By contrast, the OECD trend average[29] for science was 484 points, which was not significantly different from the average scores in PISA 2022 (487) or PISA 2018 (489) but was significantly below the average score in PISA 2015 (491).
- The range between England's highest− and lowest−performing pupils was 274 points. This was significantly larger than the OECD average of 258 score points but was not significantly different from the ranges in PISA 2022, 2018 and 2015.
- In England, 14% of pupils in England performed at the highest science proficiency levels (Levels 5 or 6), which was significantly larger than the OECD average of 7%. England had 16% of pupils working at the lower proficiency levels (below Level 2), significantly smaller than the OECD average of 26%.

[29] The 35 OECD trend countries are those OECD countries in PISA 2025 that have participated in every cycle since PISA 2015, excluding Costa Rica and Spain.

2.3 Introduction to science in PISA

In Chapter 1, Section 1.3.1, an overview is given of the PISA 2025 science framework, including some of the changes to previous PISA science frameworks. Whilst no country has a science curriculum that is directly aligned to the PISA science framework, it is helpful to consider the extent to which the National Curriculum in England reflects the PISA science framework.

Meeting the 3 competencies in the PISA science framework requires pupils to use content knowledge, procedural knowledge and epistemic knowledge.

The National Curriculum for science in England focuses on developing foundational or content knowledge, aiming to develop pupils' ability to explain phenomena scientifically, matching the first competency in the PISA 2025 science framework. However, in PISA 2025, the content knowledge is organised across 3 main areas: physical systems, living systems, and earth and space systems. In England, aspects of the Earth systems can be taught through the geography curriculum, which is compulsory up to age 14, and space systems can be taught in the science curriculum, which is compulsory for all pupils up to age 16. The science National Curriculum includes procedural elements through scientific enquiry and working scientifically, and addresses aspects of the nature of scientific knowledge, although these are not explicitly framed as epistemic knowledge.

Procedural knowledge and epistemic knowledge are also included in the National Curriculum, but with less emphasis. There is less overlap between the National Curriculum and the second and third competencies in the PISA 2025 science framework.

The PISA 2025 science framework also includes pupils’ beliefs and attitudes about science, along with a perception and awareness of environmental issues. This currently has very little coverage in the National Curriculum in England.

2.4 The performance of pupils in England in science

Pupils in England who participated in PISA 2025 achieved an average score of 516 in science. This was significantly above the OECD average of 482.

Pupils in 7 of the other 90 participating countries achieved an average score that was significantly above that in England: B-S-J-Z (China), Singapore, Macao, Taiwan, Japan, Estonia and South Korea. Pupils in a further 2 countries, Canada and New Zealand, achieved average science scores that were not significantly different from that in England, and pupils in 81 countries achieved an average score that was significantly below that in England.

Among the other 37 OECD countries, pupils in Japan (538), Estonia (527), and South Korea (526) had an average science score significantly above that in England. Table 2.1

shows the science performance of pupils in higher-performing countries[30] in PISA 2025 relative to pupils in England.

Table 2.1 Average science scores of pupils in higher-performing countries in PISA 2025 relative to the average score of pupils in England

Science performance relative to pupils in England	Country and average science score
Countries whose pupils had an average science score significantly above that in England in PISA 2025	B-S-J-Z (China) (597), Singapore (560), Macao (541), Taiwan (540), Japan (538), Estonia (527), and South Korea (526)
Countries whose pupils had an average science score not significantly different from that in England in PISA 2025	**England (516)**, Canada (510), and New Zealand (509)
Countries whose pupils had an average science score significantly below that in England in PISA 2025	Australia (509), Finland (504), United States (502), Switzerland (501), the Republic of Ireland (500), Austria (497), Hong Kong (496), Poland (495), Türkiye (494), Czech Republic (490), Belgium (490), Lithuania (488), Germany (486), the Netherlands (485), Sweden (485), Slovenia (484), France (483), Italy (483), **OECD average (482)**, Portugal (482), Hungary (480), Denmark (478), Spain (477), Croatia (476), Slovak Republic (475), Luxembourg (474), Norway (470), Latvia (468), United Arab Emirates (458), Vietnam (457), Malta (453), Ukrainian regions (17 of 27) (448), Uruguay (445), Chile (442), Israel (442), and Iceland (441), as well as the remaining 46 countries whose pupils had average scores below 440 points.

Base: All participating countries with average scores over 440 in science in PISA 2025.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

In 2025, among the 91 participating countries, pupils in 22 countries, including England, had an average score significantly above the OECD average; pupils in 9 countries had an

[30] Higher−performing countries in the science domain are those countries whose pupils had an average score over 440 points.

average score not significantly different from the OECD average; and pupils in 60 countries had an average score significantly below the OECD average.

As in previous cycles, most of the top-performing countries were from East Asia (B-S-J-Z (China) (597), Singapore (560), Macao (541), Taiwan (540), Japan (538), South Korea (526), and Hong Kong (496)). Pupils in B-S-J-Z (China) on average performed significantly above pupils in Singapore, who, on average, performed significantly above pupils in all other countries.

The European countries whose pupils had an average score significantly above the OECD average were Estonia (527), Finland (504), Switzerland (501), the Republic of Ireland (500), Austria (497), Poland (495), the Czech Republic (490), Belgium (490), and Lithuania (488). Pupils in the 2 remaining comparator countries, Canada (510) and Australia (509), also had an average score in science significantly above the OECD average.

2.5 Science performance over time

Pupils in England achieved an average score of 516 in science in PISA 2025, which was significantly above the score of 503 in PISA 2022. The average score in PISA 2025 was not significantly different from the average scores of 507 in PISA 2018 and 512 in PISA 2015.

The OECD trend average science score was 484 points in PISA 2025, which was not significantly different from the OECD trend average of 487 in PISA 2022 and 489 in PISA 2018. In PISA 2015, the average science score of 491 across OECD trend countries was significantly above the average in PISA 2025.

In total, among the 75 countries that participated in both PISA 2022 and 2025, pupils' average science score in PISA 2025 was significantly above the average score in PISA 2022 in 16 countries, including England. Pupils in a further 12 countries had an average science score in PISA 2025 that was significantly below the average score in PISA 2022. In each of the remaining 47 countries, there was no significant difference between pupils' average scores in PISA 2025 and in PISA 2022.

Table 2.2 shows the changes in the science average score of pupils in higher-performing countries, including England, and the OECD trend average between PISA 2022 and PISA 2025.

Table 2.2 Changes in pupils' average science score between PISA 2022 and PISA 2025 in higher-performing countries

Trend in science performance	Country and change in average science score
Countries whose pupils had an average science score in PISA 2025 significantly above the average science score in PISA 2022	United Arab Emirates (+26), Türkiye (+18), **England (+13)**, Slovak Republic (+13), and Uruguay (+9)
Countries whose pupils had an average science score in PISA 2025 not significantly different from the average science score in PISA 2022	Austria (+6), Italy (+6), New Zealand (+5), Lithuania (+3), Taiwan (+2), United States (+2), Australia (+2), Estonia (+1), Belgium (−1), Chile (−1), Switzerland (−1), Singapore (−2), South Korea (−2), Macao (−2), Portugal (−3), **OECD trend average (−3)**, the Netherlands (−3), France (−4), Poland (−4), the Republic of Ireland (−4), Canada (−5), Iceland (−6), Hungary (−6), Croatia (−6), Finland (−7), Germany (−7), Spain (−7), Czech Republic (−7), Norway (−8), Sweden (−8), and Japan (−9)
Countries whose pupils had an average science score in PISA 2025 significantly below their average science score in PISA 2022	Malta (−13), Vietnam (−15), Slovenia (−16), Denmark (−16), Israel (−23), Hong Kong (−25), and Latvia (−25)

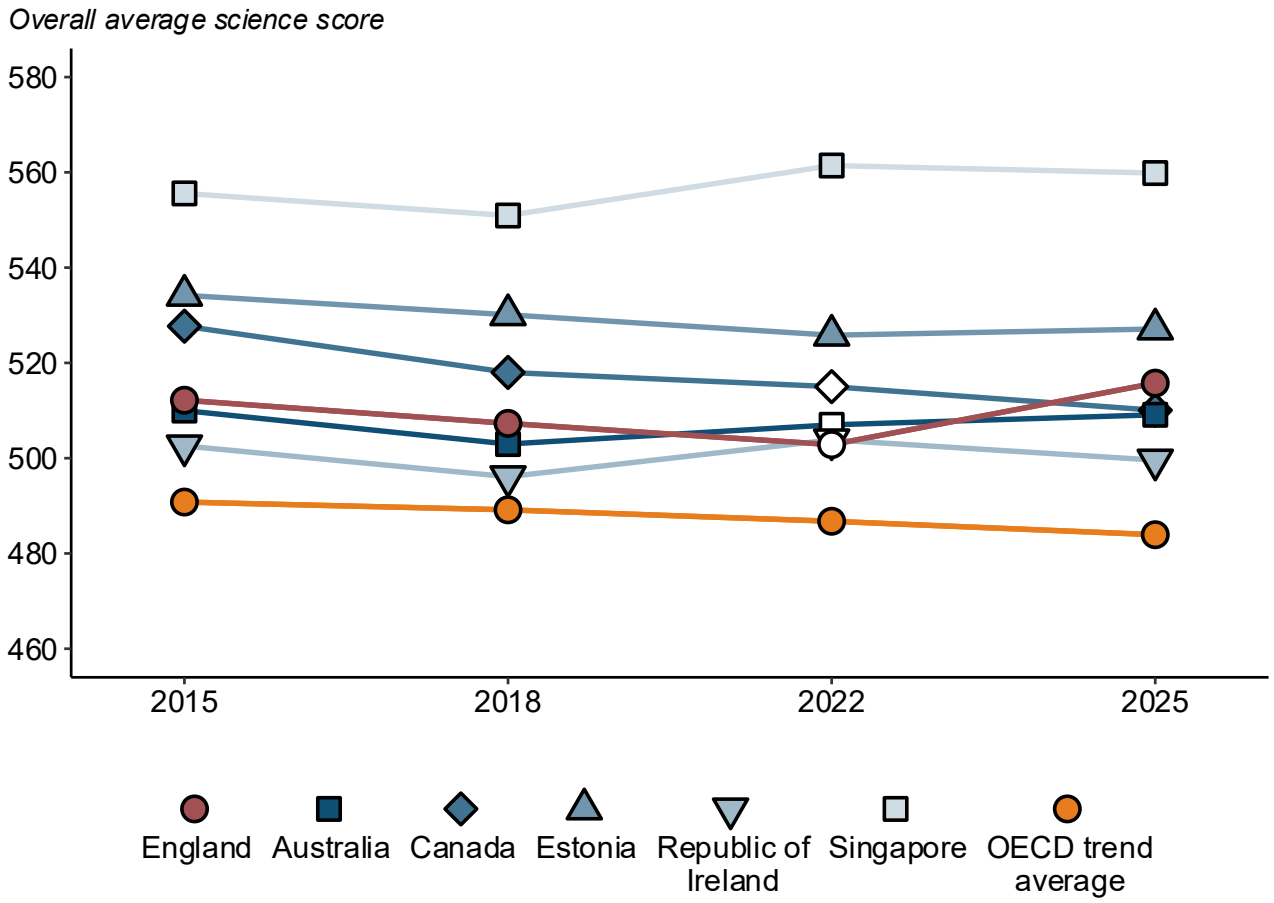
Base: All higher-performing countries in PISA 2025 that also participated in PISA 2022.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.
Caution is required when interpreting estimated changes in score because one or more PISA sampling standards were not met in PISA 2022 in some of the included countries.
Two countries with a similar change in score may have different outcomes from significance testing due to the different sample sizes and rounding.
Changes in score may appear inconsistent with scores due to rounding.

Source: OECD PISA databases for 2025 and 2022

Figure 2.1 shows the trends over time in pupils' average science scores in England, Australia, Canada, Estonia, the Republic of Ireland, and Singapore, as well as the OECD trend average. There were no significant differences between pupils' average scores in PISA 2025 and PISA 2022, 2018 and 2015 in Australia, Estonia and the Republic of Ireland. In Singapore, there were no significant differences between pupils' average scores in PISA 2025, 2022 and 2015 but the average score in PISA 2018 was significantly below the score in PISA 2025. In Canada and on average across OECD trend countries, there were no significant differences between pupils' average scores in PISA 2025, 2022

and 2018 but the average score in PISA 2015 was significantly above the score in PISA 2025.

Figure 2.1 Trends in science performance in England, comparator countries and on average across the OECD trend countries



Country	2015	2018	2022	2025
England	512	507	* 503	516
Australia	510	503	507	509
Canada	* 528	518	515	510
Estonia	534	530	526	527
Republic of Ireland	503	496	504	500
Singapore	556	* 551	561	560
OECD trend average	* 491	489	487	484

Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

2.6 Differences between the highest- and lowest-performing pupils in science

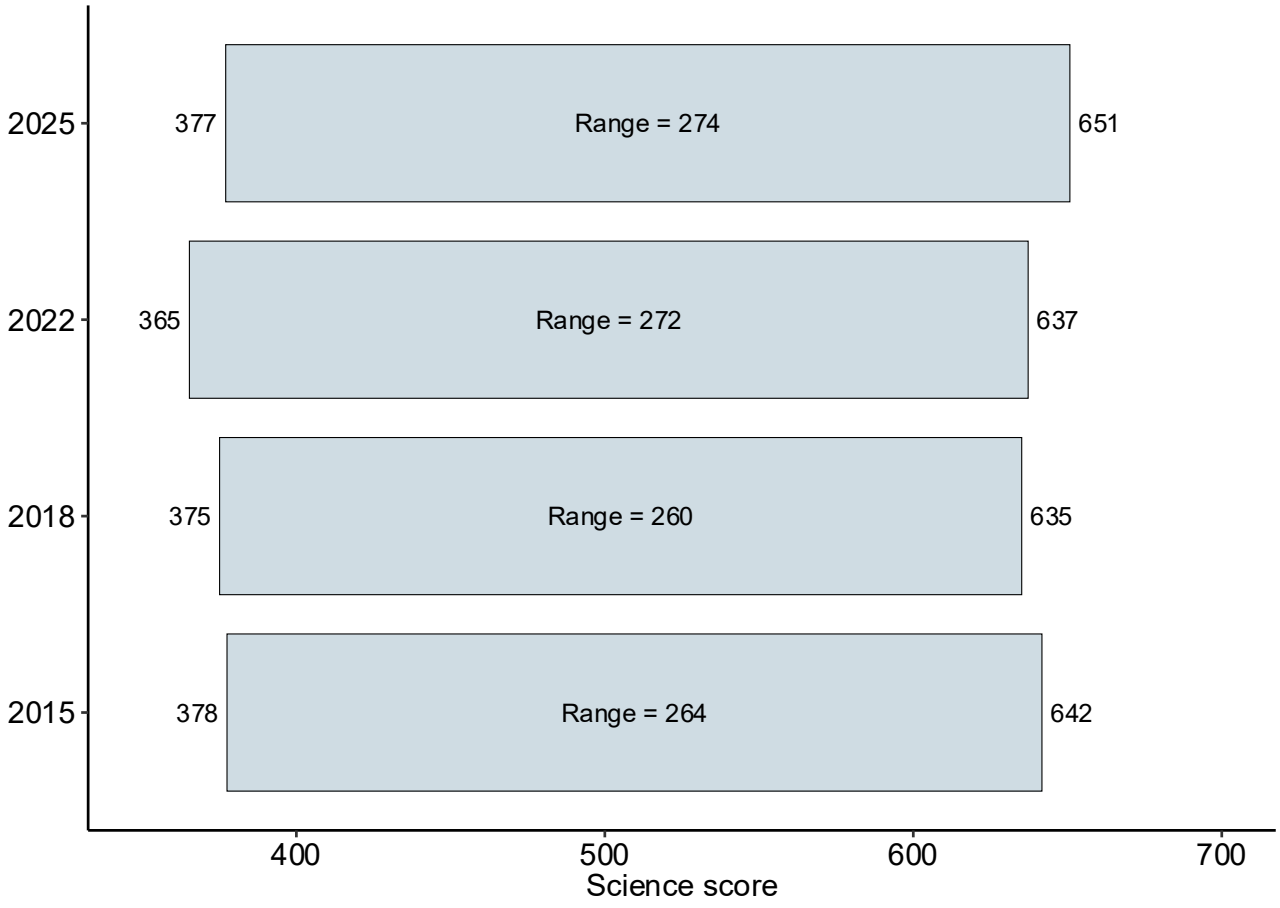
It is important to examine the difference in performance between the highest− and lowest−performing pupils in science. This is because even where pupils in 2 countries have similar average scores in science, there may be significant differences in how their pupils are performing across the attainment range. For example, a country with a wide spread of attainment may have a relatively high percentage of pupils who are performing at the lowest levels and a high percentage of pupils performing at the highest levels – they will have greater disparity across their population of pupils. On the other hand, a country with a lower spread of attainment may have fewer very high-performing pupils but may also have fewer lower-performing pupils – they will have less disparity across their pupils. Despite these differences, it would be possible for pupils in these 2 countries to attain the same average score, masking important differences between them.

The first way in which the spread of performance in each country can be examined is by looking at the distribution of scores. The 90th percentile is the score above which the highest-performing 10% of pupils attain, while the 10th percentile is the score below which the lowest-performing 10% of pupils attain. The difference between the highest− and lowest-performing pupils at the 90th and 10th percentiles, the interdecile range (shortened to range), is a better measure of the spread of scores for comparing countries than using the very highest− and lowest-performing pupils, as the latter comparison may be affected by a small number of pupils with unusually high or low scores.

In PISA 2025, the interdecile range between England's highest- and lowest-performing pupils in science was 274 points. This was significantly larger than the OECD average of 258 points.

Figure 2.2 shows the trend in the distribution of PISA science scores in England since PISA 2015. The interdecile range between England's highest- and lowest-performing pupils in science in PISA 2025 was not significantly different from the range in PISA 2022 (272), 2018 (260), or in PISA 2015 (264). The interdecile range in England in PISA 2025 was significantly larger than the range on average across OECD trend countries, but the interdecile ranges in England in PISA 2022, 2018, and 2015 were not significantly different from the ranges on average across OECD trend countries in the corresponding PISA cycle.

Figure 2.2 Trends in the range in science performance between the highest- and lowest-performing pupils in England



PISA cycle	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
2025	377	651	274
2022	365	* 637	272
2018	375	* 635	260
2015	378	642	264

Base: All participating pupils in England.
Asterisks (*) indicate that the score shown was significantly different from the respective score for PISA 2025.
Interdecile ranges were calculated as 90th percentile – 10th percentile.
Interdecile ranges may appear inconsistent with percentile scores due to rounding.

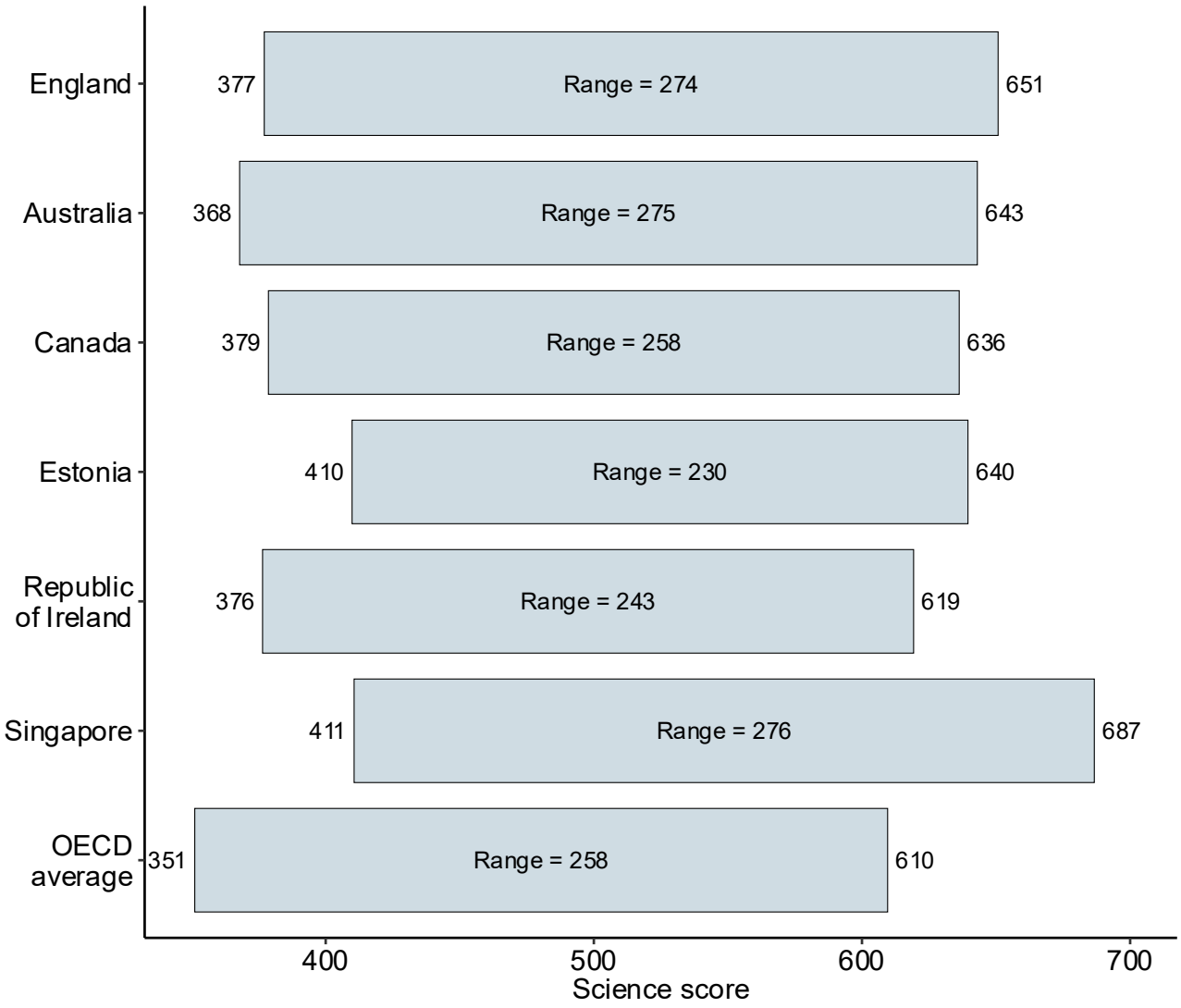
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

In PISA 2025, the score at the 90th percentile in science in England was 651, and the score at the 10th percentile was 377. On average across OECD countries the score at the 90th percentile in science was 610 points, which was significantly below the score in England. The average score across OECD countries at the 10th percentile was 351, which was also significantly below the score at the 10th percentile in England.

To further consider these differences between the highest- and the lowest-performing pupils in science in England, scores at the 90th and 10th percentiles can be compared with those of other countries. The interdecile ranges in Canada (258), the Republic of Ireland (243), and Estonia (230) were significantly smaller than in England. There were no significant differences between the interdecile range in England and the interdecile ranges in Singapore (276) and Australia (275).

Figure 2.3 shows the differences in scores between the score at the 90th and the 10th percentiles in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore and on average across OECD countries.

Figure 2.3 Ranges in science performance between the highest- and lowest-performing pupils in England, comparator countries and the OECD average



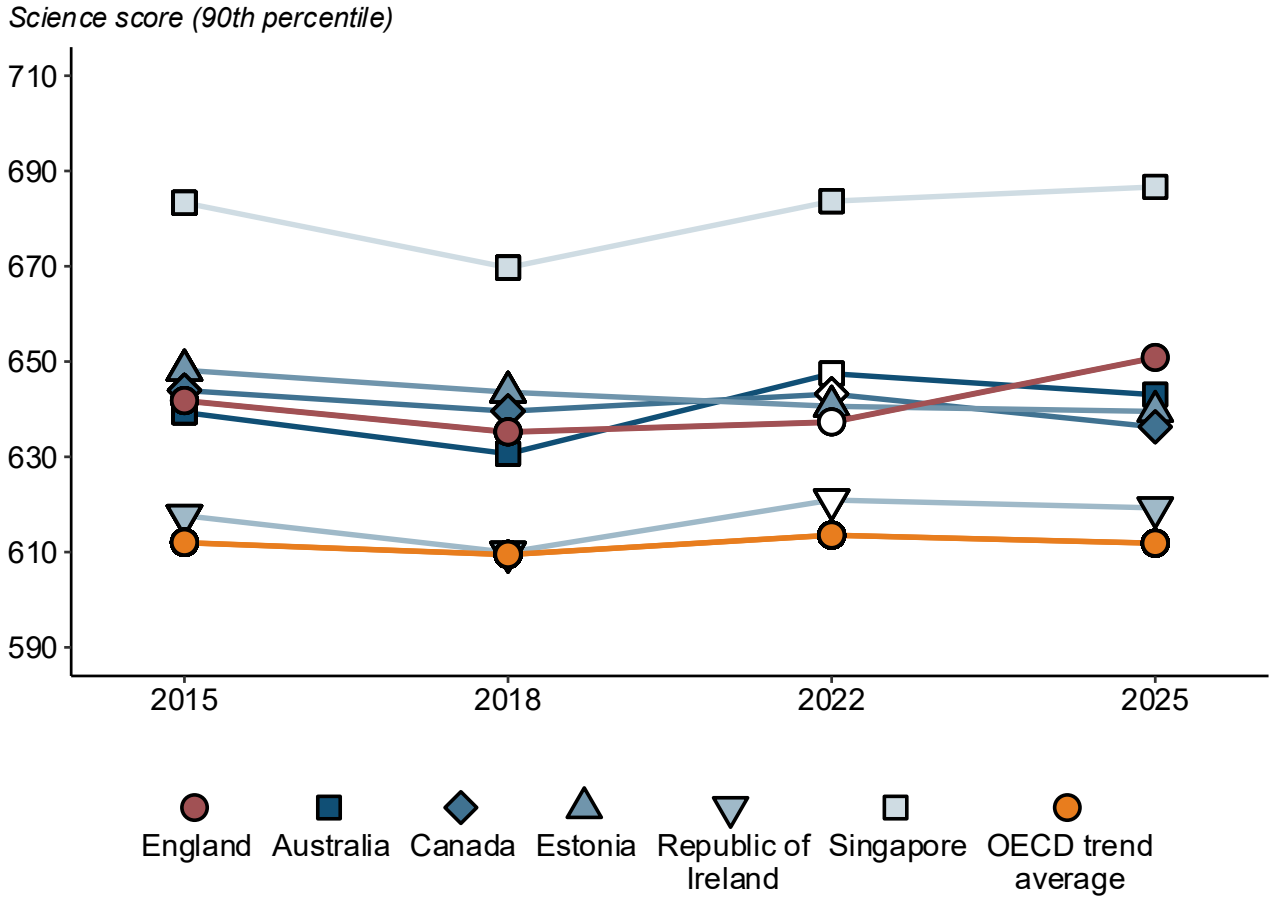
Country	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
England	377	651	274
Australia	* 368	643	275
Canada	379	* 636	* 258
Estonia	* 410	* 640	* 230
Republic of Ireland	376	* 619	* 243
Singapore	* 411	* 687	276
OECD average	* 351	* 610	* 258

Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the respective score in England.
Interdecile ranges were calculated as 90th percentile – 10th percentile.
Interdecile ranges may appear inconsistent with percentile scores due to rounding.

Source: OECD PISA database for 2025

Figure 2.4 shows the trends in the performance at the 90th percentile across the 4 most recent cycles of PISA in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore, and the OECD trend average.

Figure 2.4 Trends in science performance at the 90th percentile in England, comparator countries and on average across OECD trend countries



Country	2015	2018	2022	2025
England	642	* 635	* 637	651
Australia	639	* 631	647	643
Canada	644	640	643	636
Estonia	648	644	641	640
Republic of Ireland	618	610	621	619
Singapore	683	* 670	684	687
OECD trend average	612	609	614	612

Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

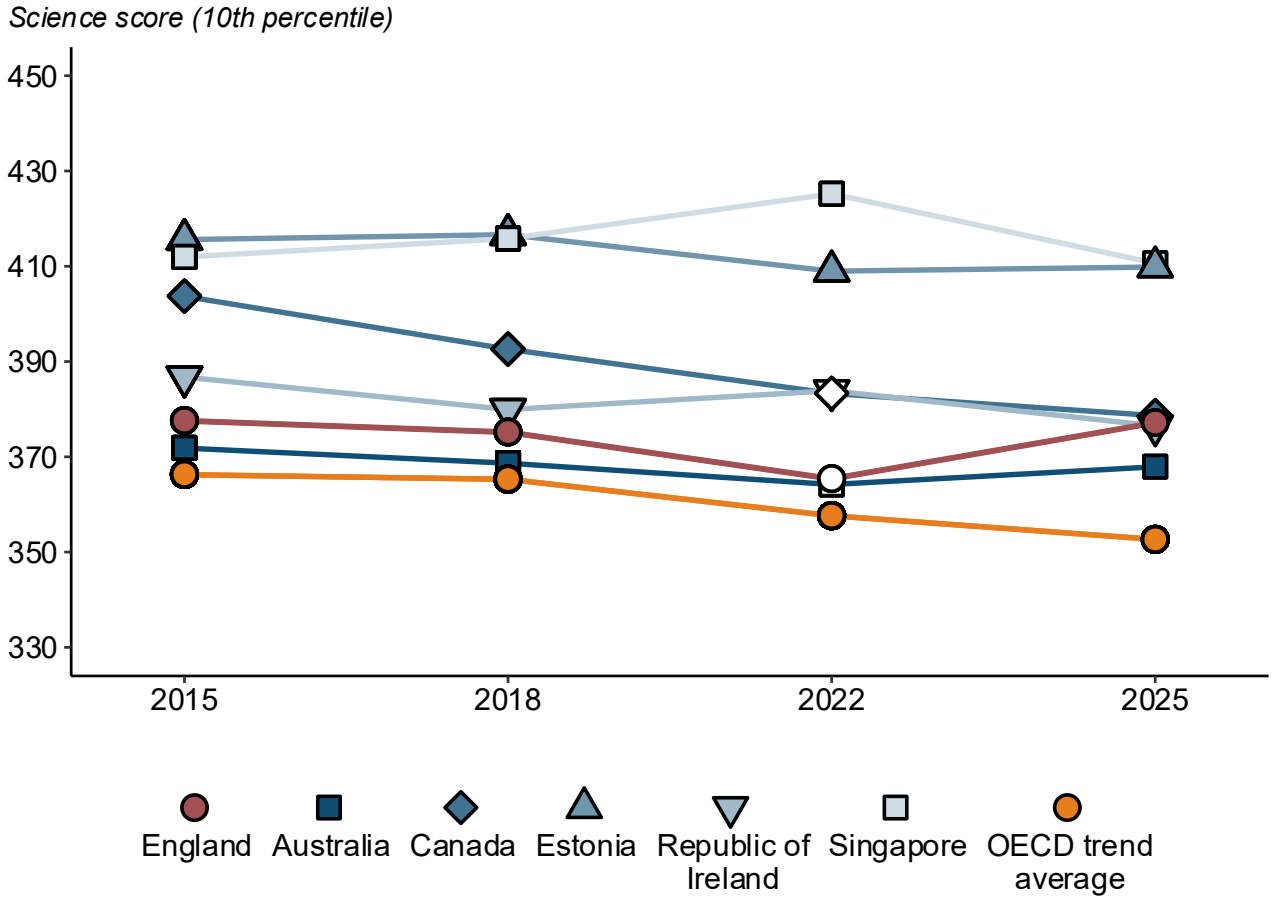
The score at the 90th percentile in England in PISA 2025 (651) was significantly above the score in PISA 2022 (637) and 2018 (635), but not significantly different from the score in PISA 2015 (642). There were no significant differences between the score at the 90th percentile in PISA 2025 in Canada, Estonia, the Republic of Ireland, and the OECD trend average and the corresponding scores in PISA 2022, 2018, and 2015. In both Australia and Singapore there was no significant difference between the score at the 90th percentile in PISA 2025 and the score in PISA 2022 and 2015, but this score was significantly above the corresponding score in PISA 2018.

Figure 2.5 shows the trends in the performance at the 10th percentile across the 4 most recent cycles of PISA in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore and the OECD trend average.

In England, the score at the 10th percentile in PISA 2025 (377) was not significantly different from the score in PISA 2022 (365), 2018 (375) and 2015 (378).

There were no significant differences between the scores at the 10th percentile in science in PISA 2025 in Australia, Estonia and the Republic of Ireland and the corresponding score in PISA 2022, 2018 and 2015. In Canada, there was no significant difference between the score at the 10th percentile in PISA 2025 (379) and in PISA 2022 (383) but the score in PISA 2025 was significantly below the score in PISA 2018 (393) and 2015 (404). In Singapore, there was no significant difference between the score at the 10th percentile in PISA 2025 (411) and that in PISA 2018 (416) and 2015 (412), but the score in PISA 2025 was significantly below the score in PISA 2022 (425).

Figure 2.5 Trends in science performance at the 10th percentile in England, comparator countries and on average across OECD trend countries



Country	2015	2018	2022	2025
England	378	375	365	377
Australia	372	369	364	368
Canada	* 404	* 393	383	379
Estonia	416	417	409	410
Republic of Ireland	387	380	384	376
Singapore	412	416	* 425	411
OECD trend average	* 366	* 365	358	353

Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

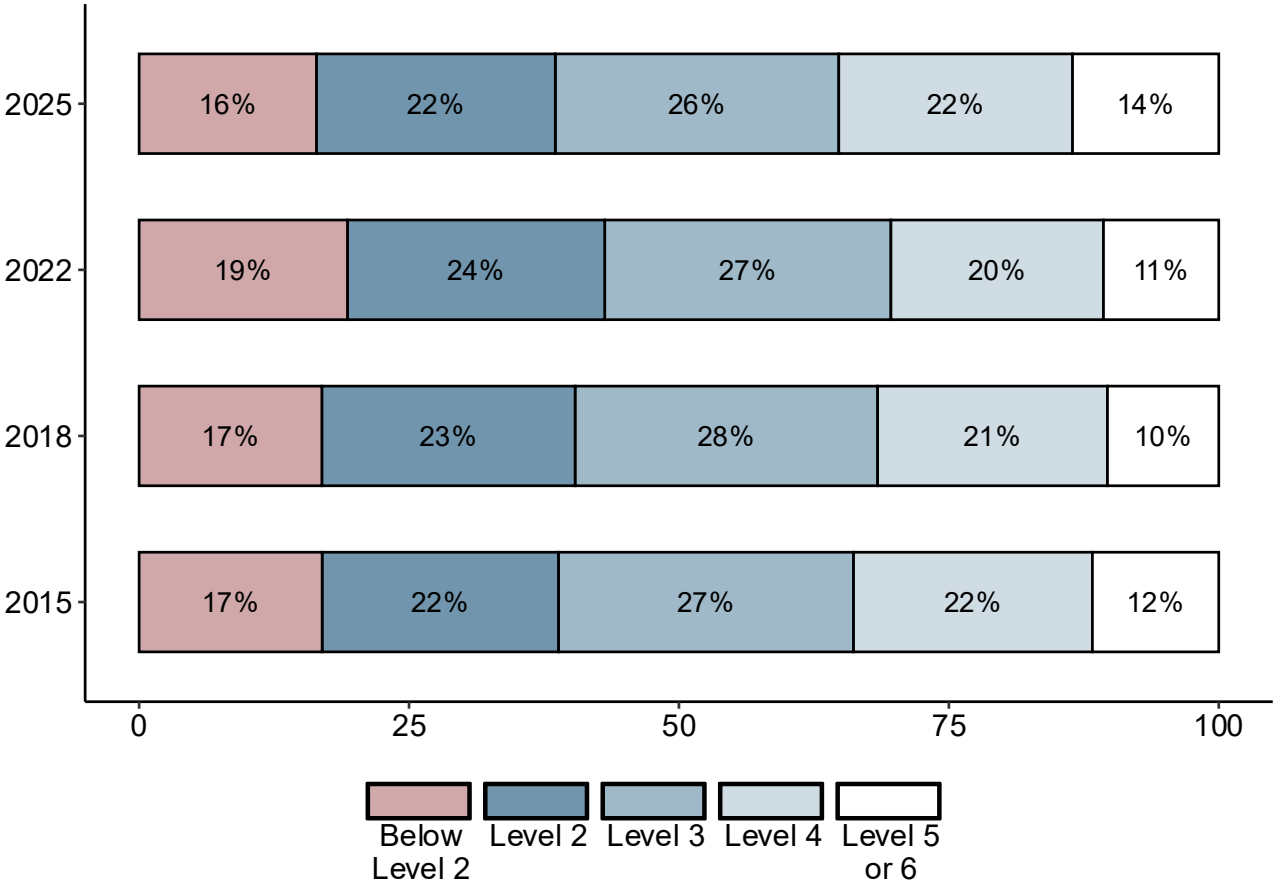
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

2.7 Performance across science proficiency levels

Another way to examine the spread of performance is to look at pupils in England's performance at each of the PISA science proficiency levels. The PISA proficiency levels describe the tasks that pupils performing at each level can do. They are devised internationally and are illustrated in the international report (OECD, 2026). Science performance in PISA is described in terms of 6 proficiency levels (Levels 1–6, with Level 1 subdivided into 1b and 1a). These proficiency levels are outlined in the PISA 2025 Assessment and Analytical Framework. Level 2 is considered the baseline level of proficiency in science where pupils can begin to use science in simple real-life situations, which is needed to participate fully in society.

In total, 14% of pupils in England performed at the highest science proficiency levels (Levels 5 or 6), which was significantly larger than the OECD average of 7%. England had 16% of pupils working at the lower proficiency levels (below Level 2), which was significantly smaller than the OECD average of 26%. Figure 2.6 shows the percentage of pupils in England performing at each science proficiency level over the 4 most recent cycles of PISA.

Figure 2.6 Percentage of pupils performing at each science proficiency level in England in PISA 2025, 2022, 2018 and 2015



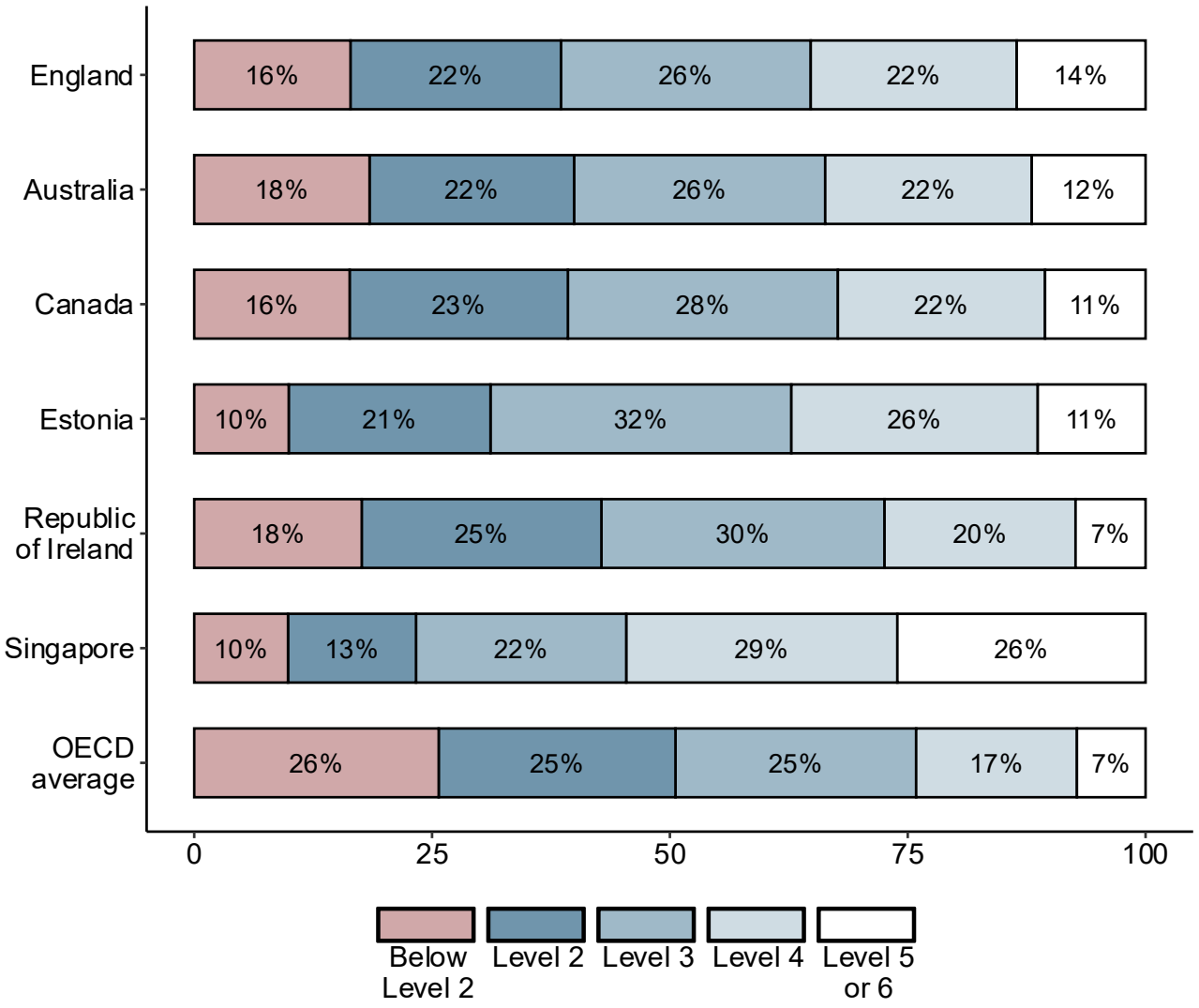
PISA Cycle	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
2025	16%	22%	26%	22%	14%
2022	19%	24%	27%	20%	11%
2018	17%	23%	28%	21%	10%
2015	17%	22%	27%	22%	12%

Base: All participating pupils in England.
Individual percentages may not total 100% due to rounding.
It was not possible at the point of writing to calculate whether there were significant differences between percentages across the PISA cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

Figure 2.7 shows the percentages of pupils in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore and on average across OECD countries, achieving each of the proficiency levels for science in PISA 2025.

Figure 2.7 Percentage of pupils performing at each science proficiency level in England, comparator countries and on average across OECD countries



Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	16%	22%	26%	22%	14%
Australia	* 18%	22%	26%	22%	12%
Canada	16%	23%	* 28%	22%	* 11%
Estonia	* 10%	21%	* 32%	* 26%	* 11%
Republic of Ireland	18%	* 25%	* 30%	20%	* 7%
Singapore	* 10%	* 13%	* 22%	* 29%	* 26%
OECD average	* 26%	* 25%	25%	* 17%	* 7%

Base: All participating pupils in countries included.
Asterisks (*) indicate that the score shown was significantly different from the respective score in England.
Individual percentages for a country may not total 100% due to rounding.

Source: OECD PISA database for 2025

At the highest proficiency levels (Levels 5 or 6), the percentage of pupils in England (14%) was not significantly different from the percentage of pupils in Australia (12%) but was significantly larger than the percentages of pupils in Canada (11%), Estonia (11%), the Republic of Ireland (7%), and the OECD average (7%). The percentage of pupils in Singapore performing at the highest proficiency levels (26%) was significantly larger than the percentage in England.

At the lowest proficiency levels (below Level 2), the percentage of pupils in England (16%) was not significantly different from the percentages of pupils in Canada (16%) and the Republic of Ireland (18%) but was significantly larger than the percentages of pupils in Estonia (10%) and Singapore (10%). The percentage of pupils in Australia at the lowest proficiency levels (18%) was significantly larger than the percentage in England.

3 Performance in reading

3.1 Chapter overview

This chapter reports on the performance of pupils in England in the reading domain in PISA 2025. It draws on findings outlined in the international report (OECD, 2026) and places outcomes for England's pupils in the context of those findings. This performance is considered alongside that of previous cycles: PISA 2022, 2018, and 2015. It outlines how the performance of pupils in England in 2025 compares with that of pupils in other participating countries, as well as how performance has changed over time. Reading was assessed using the reading framework developed for PISA 2018.

3.2 Key findings

- Pupils in England achieved an average reading score of 497 in PISA 2025. This was significantly above the OECD average of 461. Pupils in England continued to score significantly above the OECD average in reading, as they did in the 3 previous PISA cycles.
- Only pupils in 3 countries (Singapore, the Beijing, Shanghai, Jiangsu and Zhejiang regions in China (B-S-J-Z (China)), and Taiwan) had average scores significantly above the average reading scores of pupils in England. Pupils in 7 countries had average scores that did not significantly differ from the average in England. Pupils' average reading scores in the other 79 participating countries were significantly lower than in England[31].
- There was no significant difference in the average reading score in England compared with PISA 2022 (496), 2018 (505) or 2015 (500). By contrast, most higher-performing countries[32] experienced significant declines in their pupils' average scores between PISA 2022 and 2025. There was also a significant decline on average across OECD trend countries[33] over this period, from 477 in PISA 2022 to 463 in PISA 2025.
- There have also been no significant changes in the scores at the 90th or 10th percentiles in England since PISA 2015.
- In England, 10% of pupils performed at the highest reading proficiency levels (Levels 5 or 6), which was significantly larger than the OECD average of 6%.

[31] In PISA 2025 there was 1 country without performance estimates for reading.
[32] Higher−performing countries in the reading domain are those countries whose pupils had an average score over 440 points.
[33] The 35 OECD trend countries are those OECD countries in PISA 2025 that have participated in every cycle since PISA 2015, excluding Costa Rica and Spain.

3.3 Introduction to reading in PISA

Reading literacy in PISA is defined as pupils' 'capacity to understand, use, evaluate, reflect on and engage with texts in order to achieve one's goals, develop one's knowledge and potential, and participate in society' (OECD, 2023). The framework for assessing pupils' reading literacy was most recently revised in PISA 2018, when reading was the major domain of assessment.

The PISA reading literacy framework identifies 4 reading skills that readers use and rely on when engaging with texts, and provides brief descriptors of the types of tasks that pupils who participate in PISA may have to tackle that target those comprehension processes. These are:

- locating information − pupils are required to search for and select appropriate texts to help address questions, and/or identify relevant information within those texts
- understanding − pupils are required to identify both the explicit meanings of texts, as well as generate inferences − pupils will also need to integrate information within those texts
- evaluating and reflecting − pupils are required to assess the quality and credibility of text, reflect on the content and form of texts, and detect and resolve conflicts within and across texts
- reading fluency − how well pupils accurately and automatically process words and texts to comprehend explicit meaning − in PISA, this is only measured by lower-level tasks on simpler texts

More information on the current PISA reading literacy framework and example reading test-items from previous PISA cycles can be found in the OECD's PISA reading framework.

In PISA 2018, overall reading scores were supported and contextualised by subscale scores for performance in 'locating information', 'understanding' and 'evaluating and reflecting'. These subscale scores, however, were not computed for PISA 2025, as science was the major domain of assessment. Reading in this cycle of the PISA study was only computed at an overall level.

3.4 The performance of pupils in England in reading

Pupils in England who participated in PISA 2025 achieved an average score of 497 in reading. This was significantly above the OECD average score of 461 points.

The average reading score for pupils in England was significantly above the majority of countries (79), was not significantly different from the average score in 7 countries, and

was significantly below the average score in 3 countries. Table 3.1 shows the reading performance of all higher-performing countries in PISA 2025 relative to pupils in England.

Table 3.1 Average reading scores of pupils in higher-performing countries in PISA 2025 relative to the average score of pupils in England

Reading performance relative to pupils in England	Country and average reading score
Countries whose pupils had an average reading score significantly above that in England in PISA 2025	Singapore (535), B-S-J-Z (China) (527), and Taiwan (508)
Countries whose pupils had an average reading score not significantly different from that in England in PISA 2025	Japan (503), Macao (501), South Korea (501), the Republic of Ireland (500), Estonia (499), **England (497)**, New Zealand (497), and the United States (490)
Countries whose pupils had an average reading score significantly below that in England in PISA 2025	Australia (491), Canada (490), Poland (482), Hong Kong (480), Finland (474), Italy (474), Türkiye (472), Switzerland (470), Czech Republic (468), Austria (467), Sweden (466), Belgium (466), Germany (465), Lithuania (464), Portugal (462), **OECD average (461)**, Denmark (460), France (456), Croatia (453), Norway (453), Hungary (452), Spain (451), Slovak Republic (448), Slovenia (445), Luxembourg (443), and the Netherlands (441), as well as the remaining 54 countries whose pupils had average scores below 440 points.

Base: All participating countries with average scores over 440 in reading in PISA 2025.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

Among the 89 other participating countries, only pupils in 3 countries, Singapore, B-S-J-Z (China), and Taiwan, had average reading scores that were significantly above the average score achieved by pupils in England. Pupils in 7 countries (Japan, Macao, South Korea, the Republic of Ireland, Estonia, New Zealand, and the United States) had average reading scores that did not differ significantly from the average score in England. Pupils in every other participating country had an average reading score that was significantly below the average score in England.

Pupils in 21 countries, including England, scored significantly above the OECD average. This includes all 5 comparator countries. In a further 7 countries, pupils' average scores

were not significantly different from the OECD average and in the remaining 62 countries pupils' average scores were significantly below the OECD average.

3.5 Reading performance over time

Pupils in England achieved an average reading score of 497 in PISA 2025, which was not significantly different from the score of 496 in PISA 2022. By contrast, pupils' average scores in most higher-performing countries (33 out of 41) significantly declined in PISA 2025 relative to PISA 2022, with an average decline of 14 points across OECD trend countries. Table 3.2 shows the changes in average reading scores of pupils in higher-performing countries and the OECD trend average between PISA 2022 and PISA 2025.

Table 3.2 Changes in pupils' average reading score between PISA 2022 and PISA 2025 in higher-performing countries

Trend in reading performance	Country and change in average reading score
Countries whose pupils had an average reading score in PISA 2025 significantly above the average reading score in PISA 2022	Türkiye (+16)
Countries whose pupils had an average reading score in PISA 2025 not significantly different from the average reading score in PISA 2022	Slovak Republic (+1), **England (+1),** New Zealand (−4), Poland (−7), Italy (−7), and Taiwan (−7)
Countries whose pupils had an average reading score in PISA 2025 significantly below the average reading score in PISA 2022	Australia (−7), Singapore (−8), Lithuania (−8), Macao (−9), Estonia (−12), Belgium (−13), Japan (−13), Austria (−13), Switzerland (−13), **OECD trend average (−14)**, United States (−14), Germany (−15), Portugal (−15), South Korea (−15), the Republic of Ireland (−16), Finland (−16), Canada (−17), France (−18), the Netherlands (−18), Hong Kong (−20), Czech Republic (−20), Sweden (−21), Hungary (−21), Croatia (−22), Spain (−23), Norway (−24), Slovenia (−24), and Denmark (−29)

Base: All higher-performing countries in PISA 2025 that also participated in PISA 2022.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.
Caution is required when interpreting estimated changes in score because one or more PISA sampling standards were not met in PISA 2022 in some of the included countries.
Two countries with a similar change in score may have different outcomes from significance testing due to the different sample sizes and rounding.
Changes in score may appear inconsistent with scores due to rounding.

Source: OECD PISA databases for 2025 and 2022

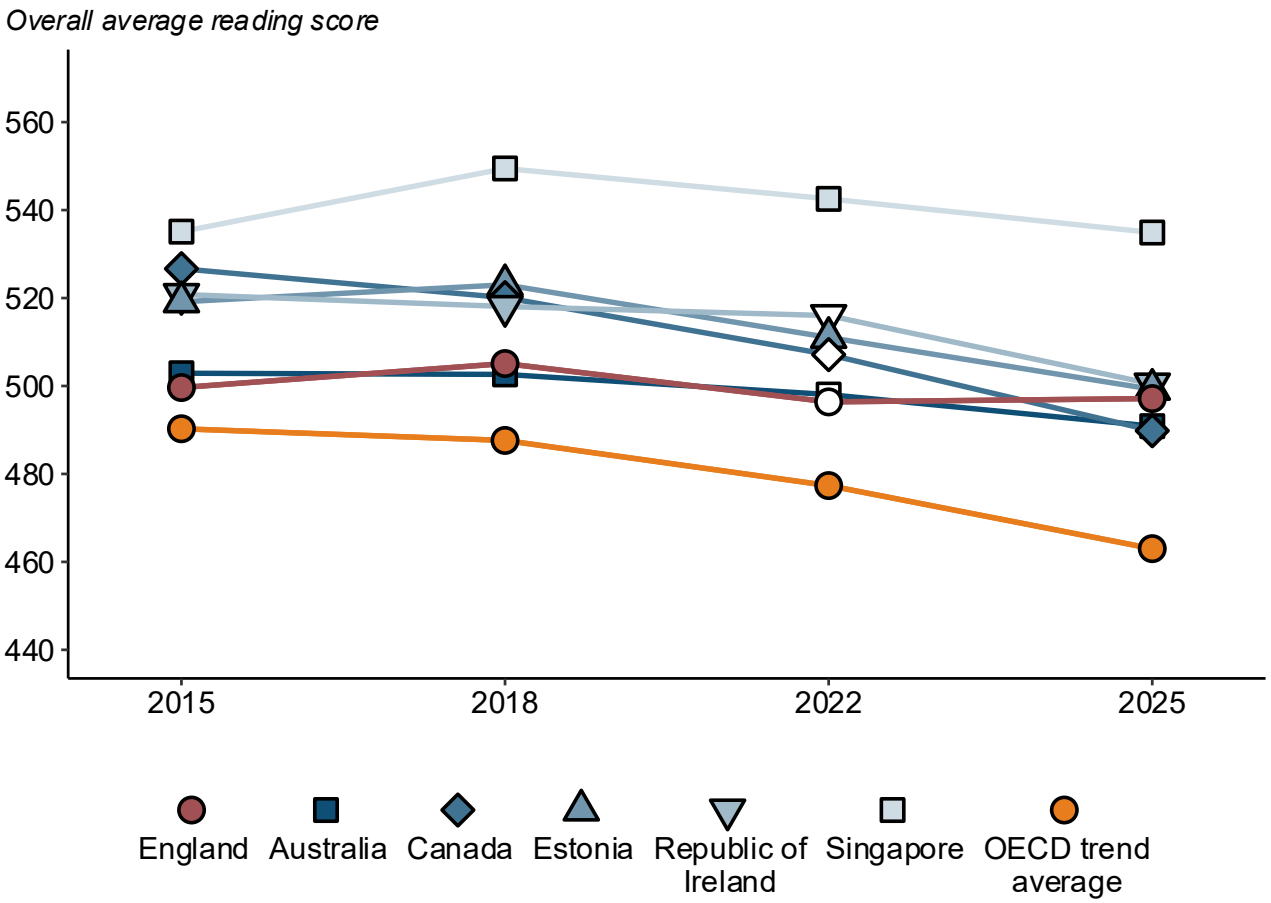
Türkiye was the only higher-performing country that experienced a significant improvement with an increase in its pupils' average reading scores of 16 points between PISA 2022 and 2025. There was no significant change in average reading scores in 6 higher-performing countries, including England. Every other higher-performing country participating in both PISA 2022 and PISA 2025 experienced a significant decline in their pupils' average reading scores. This included all 5 comparator countries.

Figure 3.1 shows the trends over time in pupils' average reading scores in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore, as well as the OECD trend average.

Pupils in England's average reading score of 497 in PISA 2025 was not significantly different from the average scores that pupils in England achieved in PISA 2022 (496), 2018 (505) and 2015 (500). All 5 comparator countries saw their pupils' average scores decrease significantly below the average scores for PISA 2022 and 2018, and 4 comparator countries also had a significant drop from the average score in PISA 2015. This was consistent with the wider trend among OECD countries, as shown by the steady decline in the OECD trend average since 2015. In Singapore, there was no significant difference between the average score in 2015 (535) and that in 2025 (also 535).

The OECD trend average decreased by 14 points between PISA 2022 and PISA 2025, from 477 to 463. All 5 comparator countries experienced significant declines in their pupils' average reading scores that were largely in line with the OECD trend average. Australia saw a 7-point decline in its pupils' average reading score since PISA 2022, while Singapore saw an 8-point decline and Estonia saw a 12-point decline. There was a 16-point decline in the Republic of Ireland and a 17-point decline in Canada.

Figure 3.1 Trends in reading performance in England, comparator countries, and on average across the OECD trend countries



Country	2015	2018	2022	2025
England	500	505	496	497
Australia	* 503	* 503	* 498	491
Canada	* 527	* 520	* 507	490
Estonia	* 519	* 523	* 511	499
Republic of Ireland	* 521	* 518	* 516	500
Singapore	535	* 549	* 543	535
OECD trend average	* 490	* 488	* 477	463

Base: All participating pupils in countries included.
Asterisks (*) indicate that the score shown was significantly different from the score in that country for PISA 2025.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

3.6 Differences between the highest- and lowest-performing pupils in reading

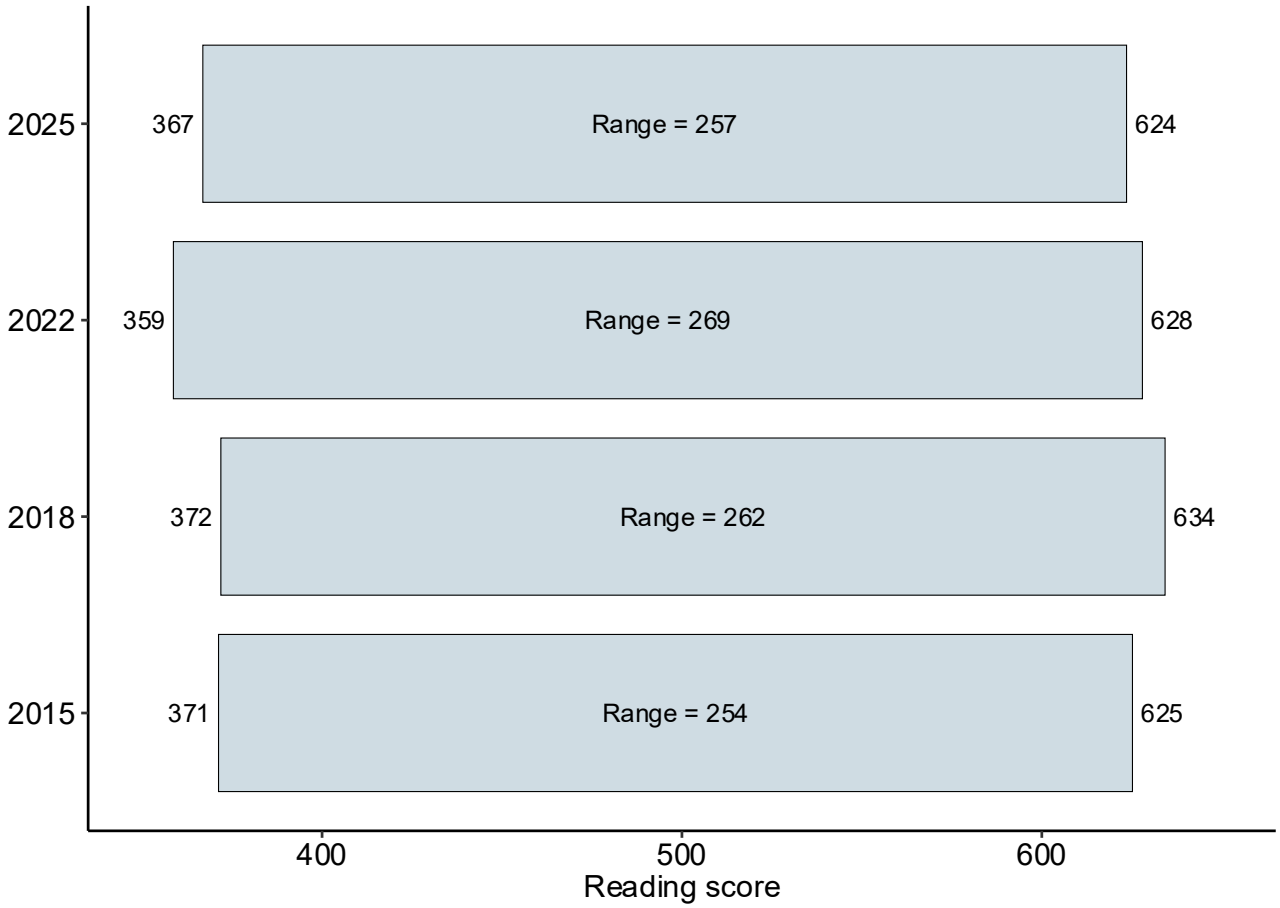
It is important to examine the difference in performance between the highest− and lowest−performing pupils in reading. This is because even where pupils in 2 countries have similar average scores in reading, there may be significant differences in how their pupils are performing across the attainment range. For example, a country with a wide spread of attainment may have a relatively high percentage of pupils who are performing at the lowest levels and a high percentage of pupils performing at the highest levels – they will have greater disparity across their population of pupils. On the other hand, a country with a lower spread of attainment may have fewer very high-performing pupils but may also have fewer lower-performing pupils – they will have less disparity across their pupils. Despite these differences, it would be possible for pupils in these 2 countries to attain the same average score, masking important differences between them.

The first way in which the spread of performance in each country can be examined is by looking at the distribution of scores. The 90th percentile is the score above which the highest-performing 10% of pupils attain, while the 10th percentile is the score below which the lowest-performing 10% of pupils attain. The difference between the highest− and lowest-performing pupils at the 90th and 10th percentiles, the interdecile range (shortened to range), is a better measure of the spread of scores for comparing countries than using the very highest− and lowest−performing pupils, as the latter comparison may be affected by a small number of pupils with unusually high or low scores.

In PISA 2025, the interdecile range between England's highest− and lowest−performing pupils in reading was 257 points. This was not significantly different from the OECD average interdecile range of 264 points.

Figure 3.2 shows the trend in the distribution of PISA reading scores in England since PISA 2015. The interdecile range in England in PISA 2022 was 269 points, which was also not significantly different from the OECD trend average interdecile range of 263 points. The interdecile range in England in PISA 2025 (257) was not significantly different from the ranges in PISA 2022 (269), 2018 (262) and 2015 (254).

Figure 3.2 Trends in the range in reading performance between the highest- and lowest-performing pupils in England



PISA cycle	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
2025	367	624	257
2022	359	628	269
2018	372	634	262
2015	371	625	254

Base: All participating pupils in England.
Asterisks (*) indicate that the score shown was significantly different from the respective score for PISA 2025.
Interdecile ranges were calculated as 90th percentile − 10th percentile.
Interdecile ranges may appear inconsistent with percentile scores due to rounding.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

Figure 3.3 shows the differences between the score at the 90th and the 10th percentiles in England, Australia, Canada, Estonia, the Republic of Ireland, and Singapore, as well as on the OECD average.

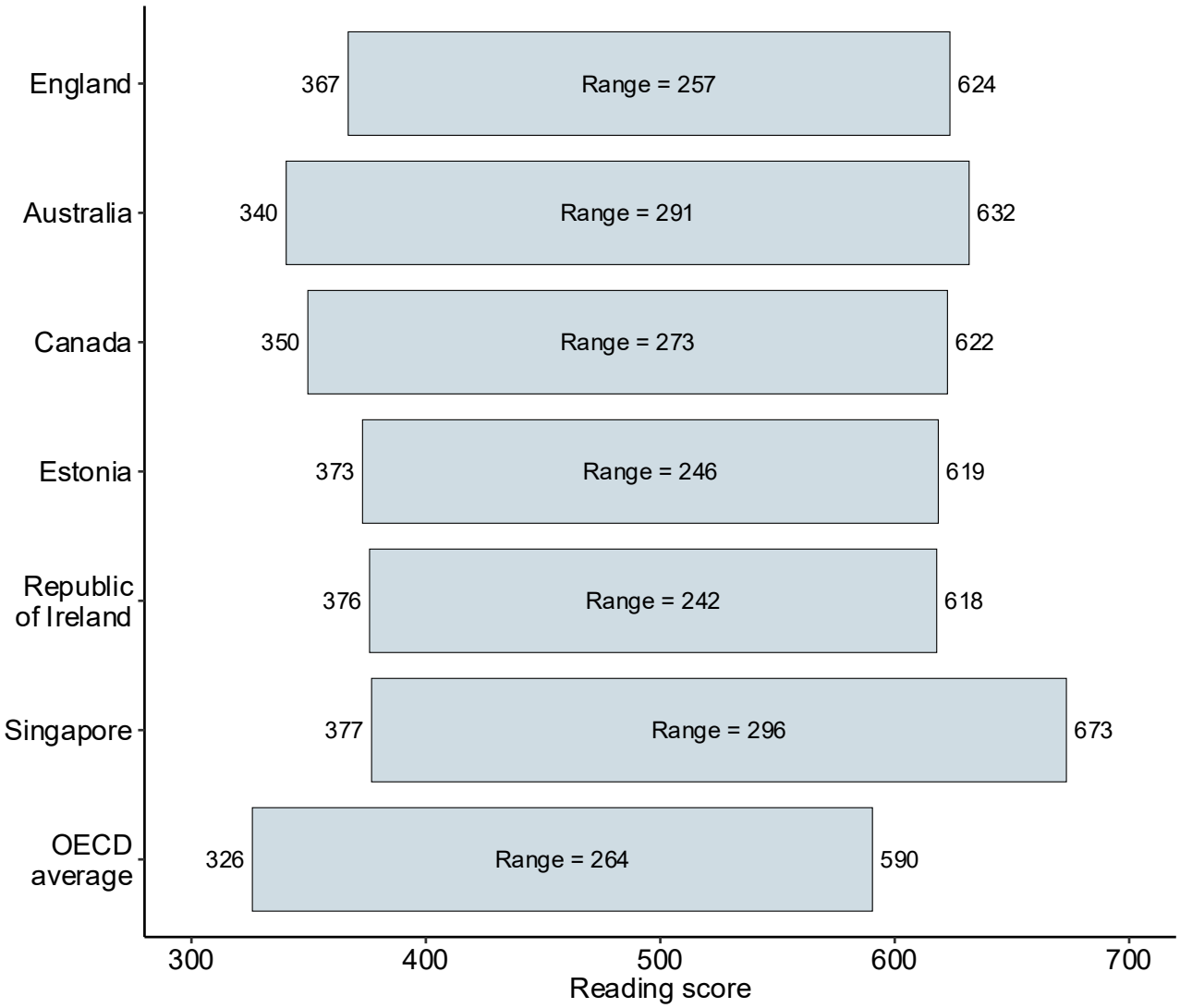
In PISA 2025 the score at the 90th percentile in reading in England was 624 points, and the score at the 10th percentile was 367 points. These scores were significantly above the corresponding scores on average across OECD countries of 590 and 326 points.

The interdecile ranges in Australia (291), Canada (273) and Singapore (296) were significantly larger than the range in England, while the range in the Republic of Ireland (242) was significantly smaller than that in England. There was no significant difference between the interdecile range in England and that in Estonia (246).

To further consider these differences between the highest− and lowest−performing pupils in reading in England, scores at the 90th and 10th percentiles can be compared with those of other countries. The score at the 90th percentile in England (624) was not significantly different from the score at the 90th percentile in Australia (632), Canada (622), Estonia (619) or the Republic of Ireland (618). It was significantly below the score in Singapore (673).

The score at the 10th percentile in England (367) was not significantly different from the score at the 10th percentile in Estonia (373), the Republic of Ireland (376) or Singapore (377), and was significantly above the respective scores in Australia (340), Canada (350) and the OECD average (326).

Figure 3.3 Range in reading performance between the highest- and lowest-performing pupils in England, comparator countries and the OECD average



Country	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
England	367	624	257
Australia	* 340	632	* 291
Canada	* 350	622	* 273
Estonia	373	619	246
Republic of Ireland	376	618	* 242
Singapore	377	* 673	* 296
OECD average	* 326	* 590	264

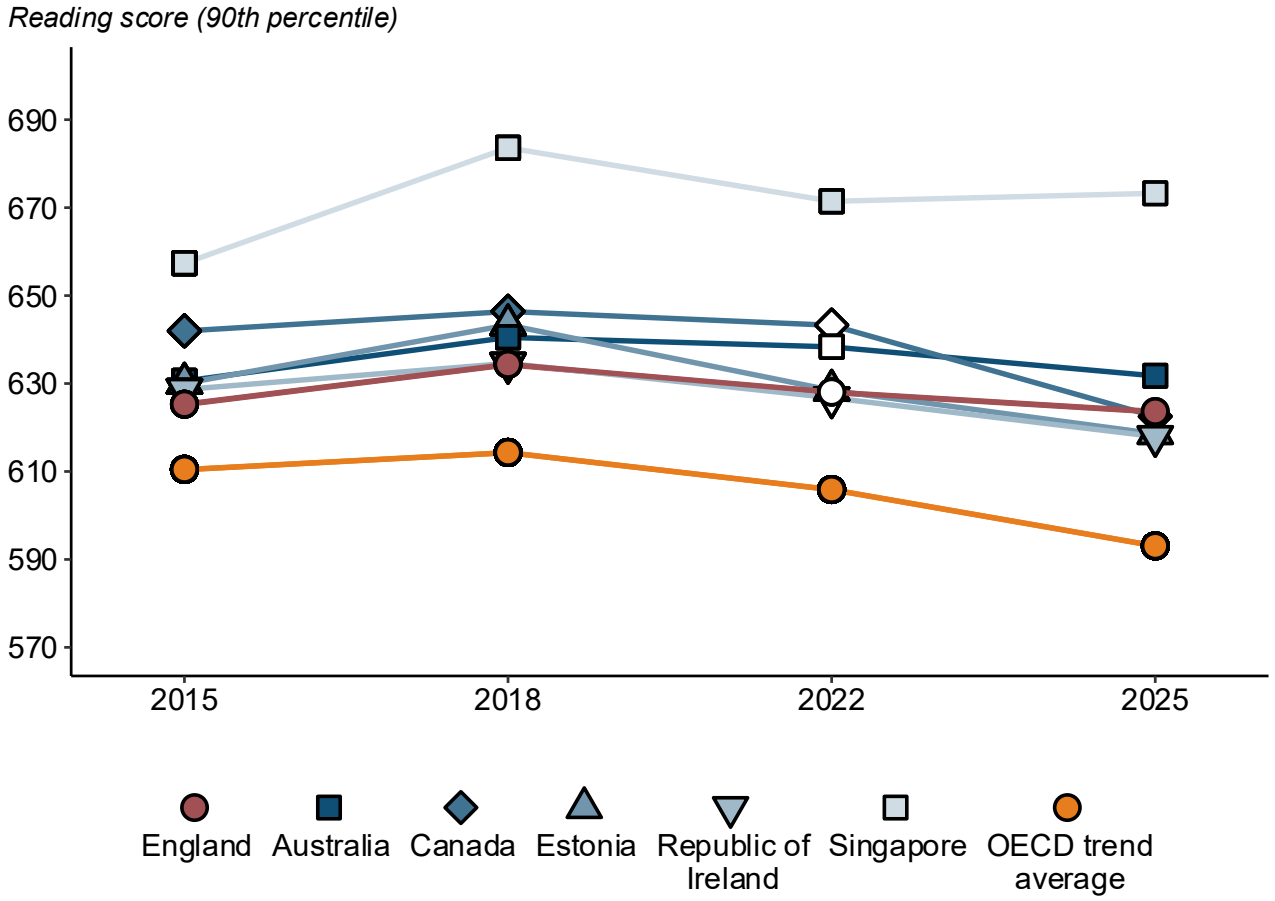
Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the respective score in England.
Interdecile ranges were calculated as 90th percentile – 10th percentile.
Interdecile ranges may appear inconsistent with percentile scores due to rounding.

Source: OECD PISA database for 2025

Figure 3.4 shows the trends in the performance at the 90th percentile in reading since PISA 2015 in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore and the OECD trend average. There was no significant difference in the score at the 90th percentile in England in PISA 2025 (624) compared to 2022 (628), 2018 (634) and 2015 (625).

The scores at the 90th percentile in Canada, Estonia, the Republic of Ireland and the OECD trend average were significantly below the respective scores in PISA 2022, 2018 and 2015. In Australia there was no significant difference between the score at the 90th percentile in PISA 2025 (632) and that in 2022 (638) and 2015 (631), but this score was significantly below the score in 2018 (640). Similarly, in Singapore there was no significant difference between the score at the 90th percentile in 2025 (673) and that in 2022 (671) but this score was significantly below the score in 2018 (684) and significantly above the score in 2015 (657).

Figure 3.4 Trends in reading performance at the 90th percentile in England, comparator countries, and on average across OECD trend countries



Country	2015	2018	2022	2025
England	625	634	628	624
Australia	631	* 640	638	632
Canada	* 642	* 646	* 643	622
Estonia	* 630	* 643	* 628	619
Republic of Ireland	* 629	* 635	* 627	618
Singapore	* 657	* 684	671	673
OECD trend average	* 610	* 614	* 606	593

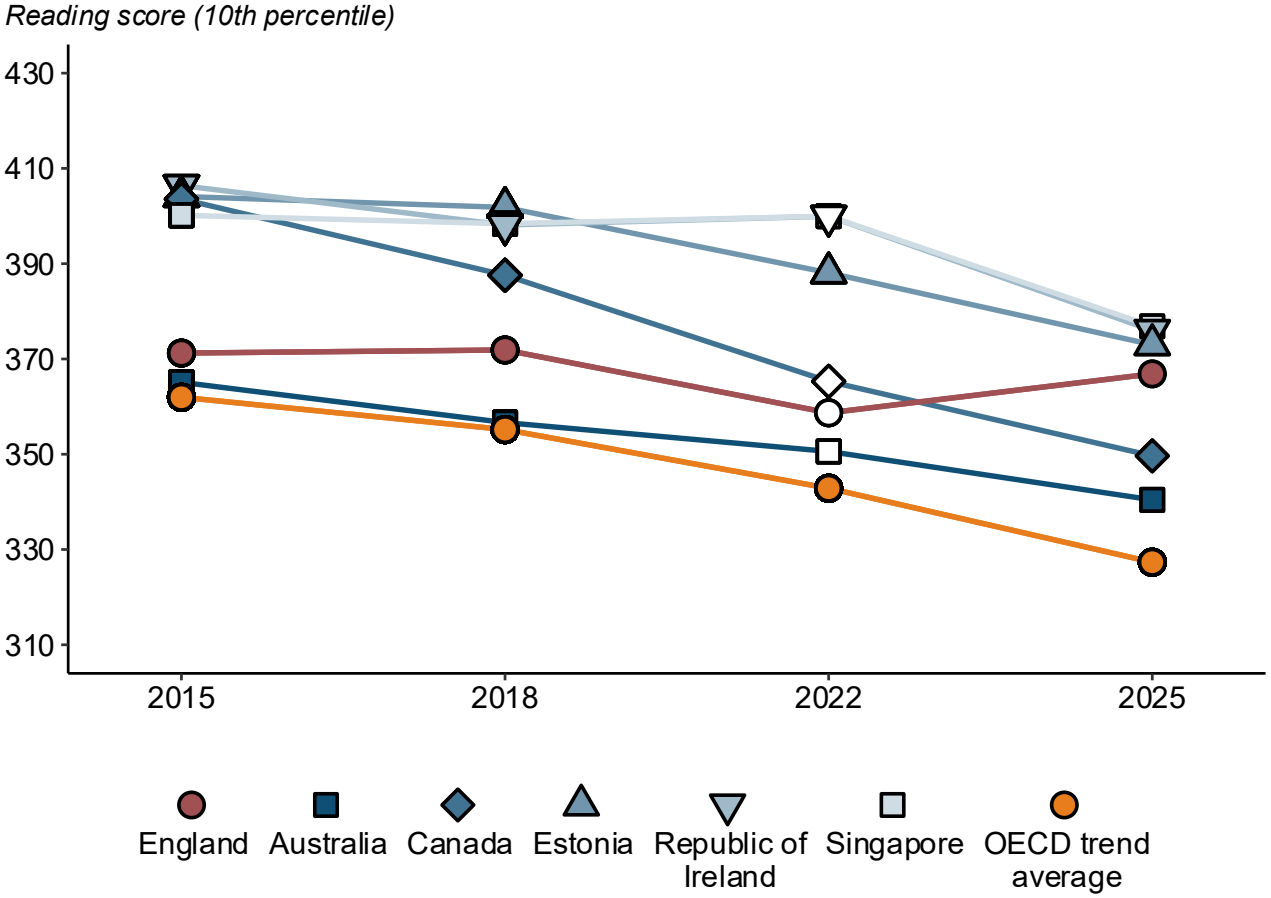
Base: All participating pupils in the included countries.
Asterisks (*) indicate the score shown was significantly different to the score in that country in PISA 2025.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

Figure 3.5 shows the trends in performance at the 10th percentile in reading since PISA 2015 in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore, and the OECD trend average.

The score at the 10th percentile in England (367) was not significantly different from the respective scores in 2022 (359), 2018 (372) and 2015 (371). By contrast, on average across OECD trend countries and all the comparator countries, the score at the 10th percentile in PISA 2025 was significantly below the corresponding scores in 2022, 2018 and 2015.

Figure 3.5 Trends in reading performance at the 10th percentile in England, comparator countries, and on average across OECD trend countries



Country	2015	2018	2022	2025
England	371	372	359	367
Australia	* 365	* 357	* 351	340
Canada	* 404	* 388	* 365	350
Estonia	* 404	* 402	* 388	373
Republic of Ireland	* 406	* 398	* 400	376
Singapore	* 400	* 398	* 400	377
OECD trend average	* 362	* 355	* 343	327

Base: All participating pupils in the included countries.
Asterisks (*) indicate the score shown was significantly different to the score in that country in PISA 2025.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.

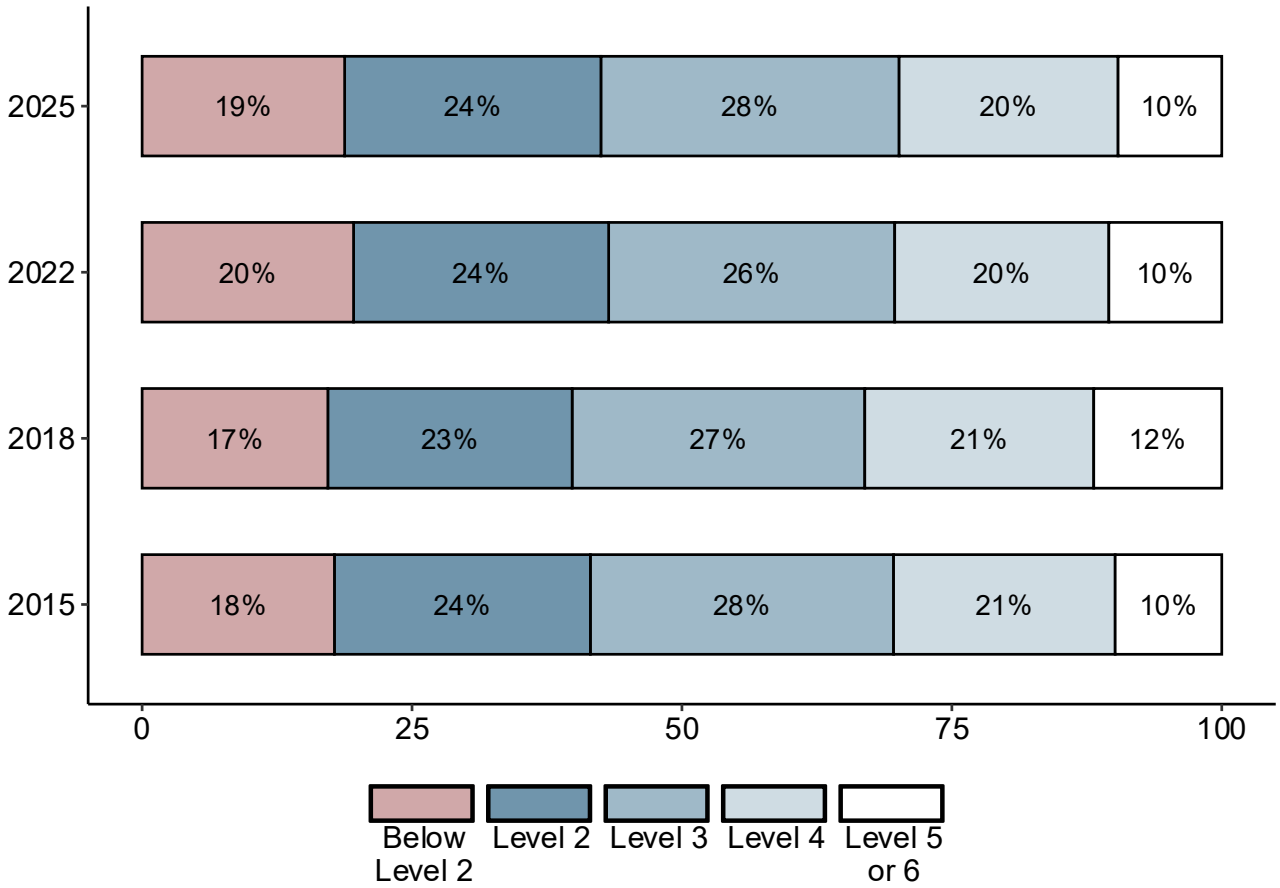
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

3.7 Performance across reading proficiency levels

Another way of examining the spread of performance is by looking at performance at each of the PISA proficiency levels. The PISA proficiency levels describe the tasks that pupils performing at each level can do. They are devised internationally and are illustrated in the international report (OECD, 2026). Reading performance in PISA is described in terms of 6 proficiency levels (Levels 1−6, with Level 1 subdivided into 1c, 1b and 1a). These performance levels are outlined in the PISA 2025 Assessment and Analytical Framework. Level 2 is considered the baseline level of proficiency in reading, where pupils have sufficient skill in reading that they are able to participate fully in society.

In total, 10% of pupils in England performed at the highest reading proficiency levels (Levels 5 or 6), which was significantly larger than the OECD average of 6%. England had 19% of pupils working at the lower proficiency levels (below Level 2), which was significantly smaller than the OECD average of 31%. Figure 3.6 shows the percentage of pupils in England performing at each reading proficiency level over the 4 most recent cycles of PISA.

Figure 3.6 Percentage of pupils performing at each reading proficiency level in England in PISA 2025, 2022, 2018 and 2015



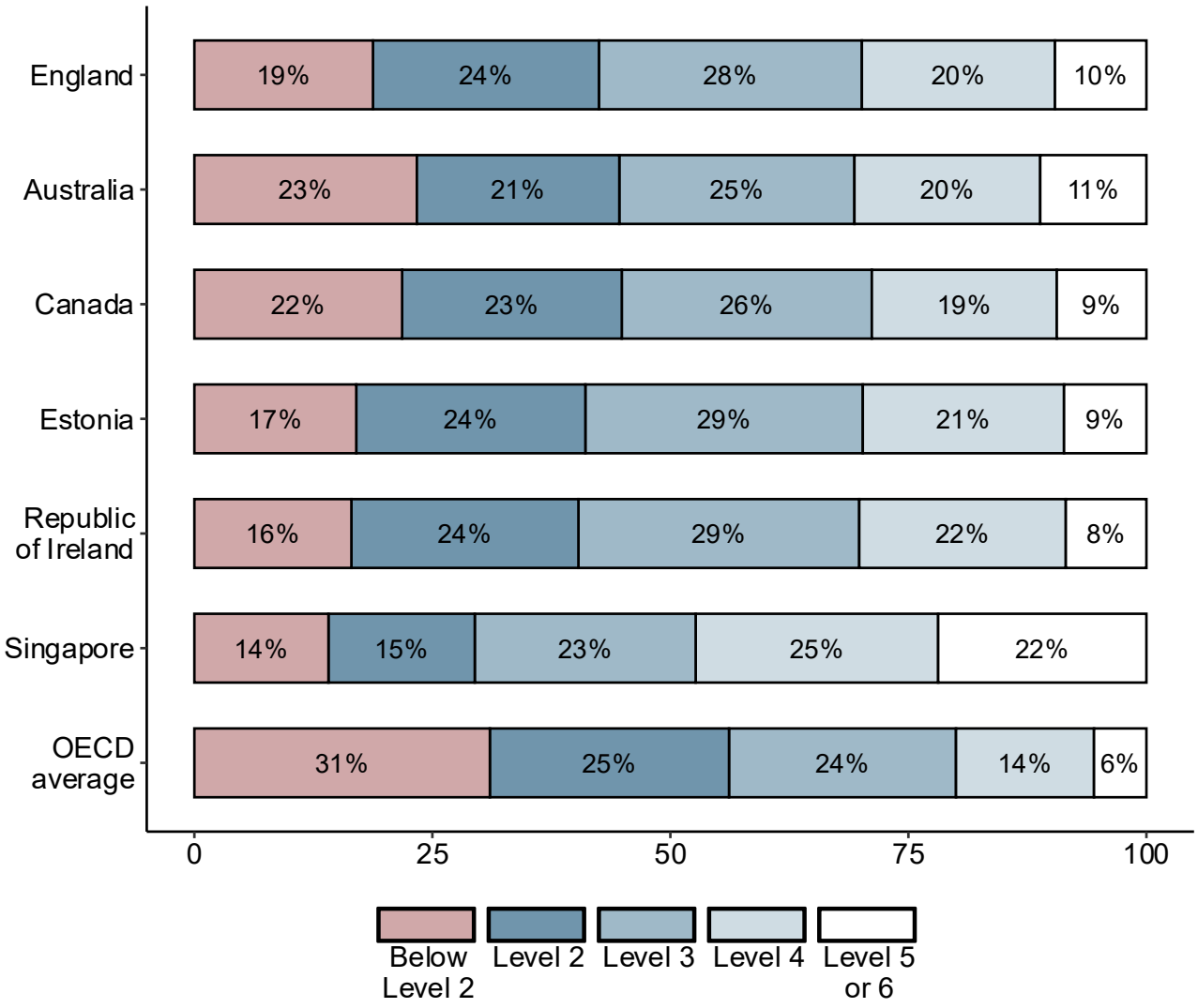
PISA Cycle	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
2025	19%	24%	28%	20%	10%
2022	20%	24%	26%	20%	10%
2018	17%	23%	27%	21%	12%
2015	18%	24%	28%	21%	10%

Base: All participating pupils in England.
Individual percentages may not total 100% due to rounding.
It was not possible at the point of writing to calculate whether there were significant differences between percentages across the PISA cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

Figure 3.7 shows the percentage of pupils in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore, and on average across OECD countries, achieving each of the proficiency levels for reading in PISA 2025.

Figure 3.7 Percentage of pupils performing at each reading proficiency level in England, comparator countries, and on average across OECD countries



Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	19%	24%	28%	20%	10%
Australia	* 23%	* 21%	* 25%	20%	11%
Canada	* 22%	23%	26%	19%	9%
Estonia	17%	24%	29%	21%	9%
Republic of Ireland	* 16%	24%	29%	22%	8%
Singapore	* 14%	* 15%	* 23%	* 25%	* 22%
OECD average	* 31%	25%	* 24%	* 14%	* 6%

Base: All participating pupils in the countries included.

Individual percentages for a country may not total 100% due to rounding.

Asterisks (*) indicate that the score shown was significantly different from the respective score England.

Source: OECD PISA database for 2025

At the highest proficiency levels (Levels 5 or 6), the percentage of pupils in England (10%) was not significantly different from the percentages of pupils in Australia (11%), Canada (9%), Estonia (9%) and the Republic of Ireland (8%) but was significantly smaller than the percentage of pupils in Singapore (22%).

At the lowest proficiency levels (below Level 2), the percentage of pupils in England (19%) was not significantly different from the percentage of pupils in Estonia (17%). It was significantly smaller than the percentages of pupils in Australia (23%) and Canada (22%) but significantly larger than the percentages in the Republic of Ireland (16%) and Singapore (14%).

4 Performance in mathematics

4.1 Chapter overview

This chapter reports on the performance of pupils in England in the mathematics domain in PISA 2025. It draws on findings outlined in the international report (OECD, 2026) and places outcomes for England's pupils in the context of those findings. This performance is considered alongside that of previous cycles: PISA 2022, 2018, and 2015. It outlines how the performance of pupils in England in PISA 2025 compares to that of pupils in other participating countries, as well as how performance has changed over time. Mathematics was assessed using the mathematics framework developed for PISA 2022 when mathematics was most recently the major domain.

4.2 Key findings

- Pupils in England achieved an average mathematics score of 492 in PISA 2025, which was significantly above the OECD average of 463.
- Pupils in 9 countries had average mathematics scores that were significantly above the average score of pupils in England: the Beijing, Shanghai, Jiangsu, and Zhejiang regions in China (B-S-J-Z (China)), Singapore, Macao, Taiwan, Japan, South Korea, Hong Kong, Estonia and Switzerland. Pupils in Canada had an average mathematics score (485) that was not significantly different to the average score of pupils in England. Pupils in the remaining 79 countries all had average mathematics scores significantly below those of pupils in England[34].
- The average mathematics score achieved by pupils in England in PISA 2025 (492) was significantly below the average mathematics score achieved in PISA 2018 (504) but was not significantly different from the average scores that pupils achieved in PISA 2022 (492) and 2015 (493).
- By contrast, the average mathematics score across the OECD trend countries in PISA 2025 was 465, which was significantly below the average mathematics score across OECD trend countries in PISA 2022 (475), 2018 (490) and 2015 (487).
- The scores for pupils in England were significantly above the average across OECD trend countries[35] for every PISA cycle since 2015.
- The range between England's highest- and lowest-performing pupils in PISA 2025 was 268 points. This was significantly larger than the OECD average of 244 points.

[34] In PISA 2025 there was 1 country without performance estimates for mathematics.
[35] The 35 OECD trend countries are those OECD countries in PISA 2025 that have participated in every cycle since PISA 2015, excluding Costa Rica and Spain.

- In England, 14% of pupils performed at the highest proficiency levels (Levels 5 or 6), which was significantly larger than the OECD average of 8%. England had 25% of pupils working at the lower proficiency levels (below Level 2), significantly smaller than the OECD average of 35%.

4.3 Introduction to mathematics in PISA

Mathematical literacy in PISA is a pupil's 'capacity to reason mathematically and to formulate, employ, and interpret mathematics to solve problems in a variety of real-world contexts' (OECD, 2023). The framework for assessing pupils' mathematical literacy was most recently revised in PISA 2022, when mathematics was the major domain of assessment.

The PISA mathematics framework relates mathematical reasoning and three processes of the problem-solving (mathematical modelling) cycle: formulate, employ, and interpret and evaluate. It also describes how mathematical content knowledge is organised into four content subdomains: Quantity, Uncertainty and Data, Change and Relationships, Space and Shape.

More information on the current PISA mathematics framework and example mathematics test-items can be found in the OECD's mathematics framework.

4.4 The performance of pupils in England in mathematics

Pupils in England who participated in PISA 2025 achieved an average score of 492 points in mathematics. This was significantly above the OECD average of 463 points.

Pupils in 9 countries had average mathematics scores that were significantly above the average score of pupils in England: B-S-J-Z (China), Singapore, Macao, Taiwan, Japan, South Korea, Hong Kong, Estonia and Switzerland. Pupils in Canada had an average mathematics score (485) that was not significantly different to the average score of pupils in England. Pupils in the remaining 79 countries all had average mathematics scores significantly below those of pupils in England. Table 4.1 shows the average mathematics score for pupils in England relative to pupils in every other higher-performing country[36] and on average across OECD countries.

Among the other 37 OECD countries that participated in 2025, pupils in 4 countries (Japan (525), South Korea (522), Estonia (508), and Switzerland (499)) had an average mathematics score significantly above the average score of pupils in England.

[36] Higher−performing countries in the mathematics domain are those countries whose pupils had an average score over 440 points.

Table 4.1 Average mathematics scores of pupils in higher-performing countries in PISA 2025 relative to the average score of pupils in England

Mathematics performance relative to pupils in England	Country and average mathematics score
Countries whose pupils had an average mathematics score significantly above that in England in PISA 2025	B-S-J-Z (China) (612), Singapore (563), Macao (549), Taiwan (546), Japan (525), South Korea (522), Hong Kong (522), Estonia (508), and Switzerland (499)
Countries whose pupils had an average mathematics score not significantly different from that in England in PISA 2025	**England (492)** and Canada (485)
Countries whose pupils had an average mathematics score significantly below that in England in PISA 2025	Poland (484), the Netherlands (483), the Republic of Ireland (480), Belgium (480), New Zealand (480), Australia (478), Austria (477), Czech Republic (477), Denmark (471), Lithuania (470), Slovak Republic (469), Finland (469), Italy (468), Sweden (464), Germany (464), **OECD average (463)**, United States (463), Türkiye (462), Latvia (460), Portugal (460), Slovenia (460), Hungary (459), Luxembourg (458), France (458), Spain (457), Croatia (455), United Arab Emirates (453), Norway (452), Iceland (450), and Vietnam (443), as well as the remaining 50 countries whose pupils had average scores below 440 points.

Base: All higher-performing countries in PISA 2025 that also participated in PISA 2022.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

In PISA 2025, among the other 89 participating countries, pupils in 22 countries had an average mathematics score significantly above the OECD average, while pupils in 9 countries had an average score that was not significantly different from the OECD average. Pupils in the remaining 58 countries had an average score significantly below the OECD average.

As in previous cycles, most of the top-performing countries in mathematics were from East Asia (B-S-J-Z (China) (612), Singapore (563), Macao (549), Taiwan (546), Japan (525), South Korea (522), and Hong Kong (522). The average score of pupils in B-S-J-Z (China) was significantly above that of pupils in Singapore, with both countries having average scores significantly above the average of pupils in all other countries.

The European countries whose pupils had an average score significantly above the OECD average were Estonia (508), Switzerland (499), Poland (484), the Netherlands (483), the Republic of Ireland (480), Belgium (480), Austria (477), Czech Republic (477), Denmark (471), Lithuania (470), Slovak Republic (469), and Finland (469). Pupils in two other comparator countries, Canada (485) and Australia (478), also had an average score in mathematics significantly above the OECD average.

4.5 Mathematics performance over time

Pupils in England achieved an average score of 492 points in mathematics in PISA 2025, which was the same as the score in PISA 2022. The average score in PISA 2025 was significantly below the average score of 504 in PISA 2018 but not significantly different from the average score of 493 in 2015.

On average across the OECD trend countries the mathematics score in PISA 2025 was 465, which was significantly below the average mathematics score across OECD trend countries in PISA 2022 (475), PISA 2018 (490) and PISA 2015 (487).

In total, of the 75 countries, including England, that participated in both PISA 2022 and PISA 2025, 9 countries saw a significant increase in their pupils' average mathematics score in 2025 compared with 2022. A further 40 countries saw a significant decrease in their pupils' average mathematics score, and the remaining 26 countries saw no significant change in their pupils' average mathematics scores.

Table 4.2 shows the changes in the average mathematics scores of pupils in higher-performing countries, including England, and the OECD trend average between PISA 2022 and PISA 2025.

Table 4.2 Changes in pupils' average mathematics score between PISA 2022 and PISA 2025 in higher-performing countries

Trend in mathematics performance	Country and change in pupils' average mathematics score
Countries whose pupils had an average mathematics score in PISA 2025 significantly above the average mathematics score in PISA 2022	United Arab Emirates (+21) and Türkiye (+8)
Countries whose pupils had an average mathematics score in PISA 2025 not significantly different from the average mathematics score in PISA 2022	Slovak Republic (+5), New Zealand (+1), **England (−1)**, Taiwan (−1), United States (−2), Estonia (−2), Macao (−3), Italy (−3), Lithuania (−5), Poland (−5), South Korea (−5), the Netherlands (−9), and Japan (−10)
Countries whose pupils had an average mathematics score in PISA 2025 significantly below the average mathematics score in PISA 2022	Croatia (−8), Switzerland (−9), Iceland (−9), **OECD trend average (−9)**, Australia (−10), Belgium (−10), Czech Republic (−10), Austria (−10), Germany (−11), Canada (−12), Singapore (−12), the Republic of Ireland (−12), Portugal (−12), Hungary (−13), Finland (−15), Spain (−16), France (−16), Norway (−17), Sweden (−18), Hong Kong (−19), Denmark (−19), Latvia (−23), Slovenia (−25), and Vietnam (−26)

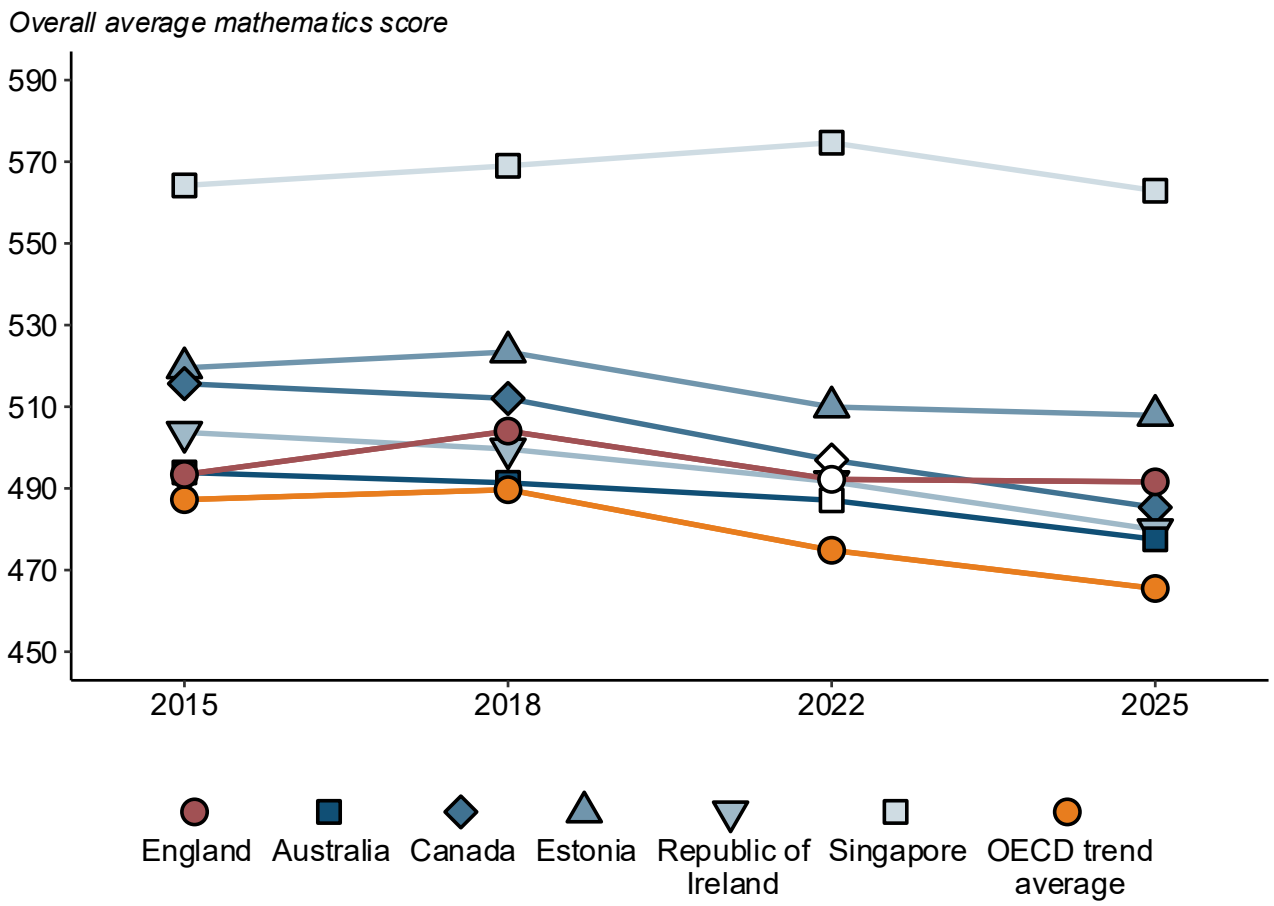
Base: All countries with average scores over 440 in mathematics in PISA 2025 that also participated in PISA 2022.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.
Caution is required when interpreting estimated changes in score because one or more PISA sampling standards were not met in PISA 2022 in some of the included countries.
Two countries with a similar change in score may have different outcomes from significance testing due to the different sample sizes and rounding.
Changes in score may appear inconsistent with scores due to rounding.

Source: OECD PISA database for 2025 and 2022

Figure 4.1 shows the trends over time in pupils' average mathematics scores in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore, and on average across the OECD trend countries. The average scores for pupils in Australia, Canada, the Republic of Ireland and the OECD trend average in PISA 2025 were all significantly below the corresponding scores in 2022, 2018 and 2015. Pupils' average score in PISA 2025 in Singapore (563) was significantly below that in 2022 (575) but was not significantly different from the corresponding scores in 2018 (569) and 2015 (564). In Estonia, there was no significant difference between pupils' average score in PISA 2025 (508) and that in

2022 (510), but the average score in 2025 was significantly below the scores in 2018 (523) and 2015 (520).

Figure 4.1 Trends in mathematics performance in England, comparator countries and on average across the OECD trend countries



Country	2015	2018	2022	2025
England	493	* 504	492	492
Australia	* 494	* 491	* 487	478
Canada	* 516	* 512	* 497	485
Estonia	* 520	* 523	510	508
Republic of Ireland	* 504	* 500	* 492	480
Singapore	564	569	* 575	563
OECD trend average	* 487	* 490	* 475	465

Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

4.6 Differences between the highest- and lowest-performing pupils in mathematics

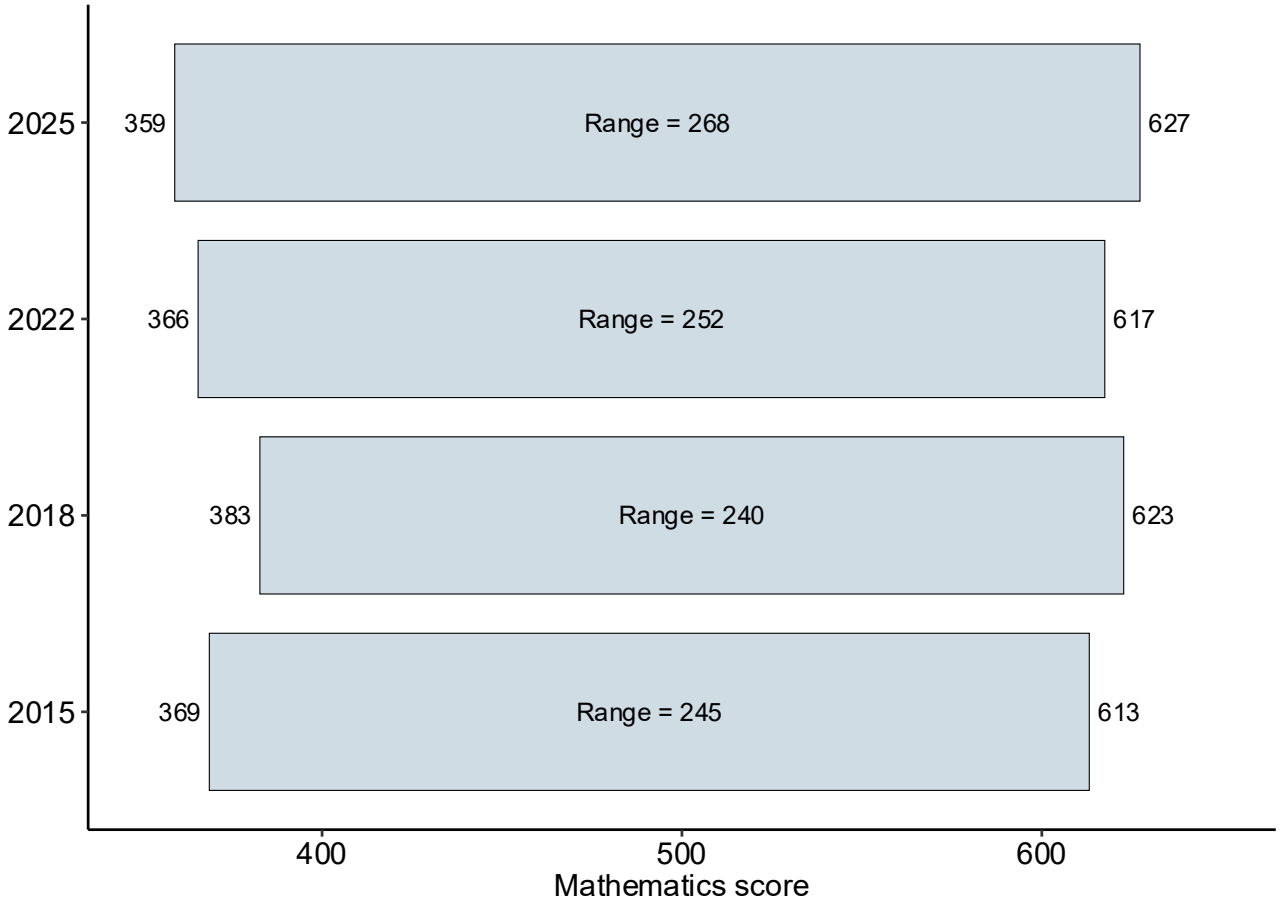
It is important to examine the difference in performance between the highest− and lowest−performing pupils in mathematics. This is because even where pupils in 2 countries have similar average scores in mathematics, there may be significant differences in how their pupils are performing across the attainment range. For example, a country with a wide spread of attainment may have a relatively high percentage of pupils who are performing at the lowest levels and a high percentage of pupils performing at the highest levels – they will have greater disparity across their population of pupils. On the other hand, a country with a lower spread of attainment may have fewer very high-performing pupils but may also have fewer lower-performing pupils – they will have less disparity across their pupils. Despite these differences, it would be possible for pupils in these 2 countries to obtain the same average score, masking important differences between them.

The first way in which the spread of performance in each country can be examined is by looking at the distribution of scores. The 90th percentile is the score above which the highest-performing 10% of pupils obtain, while the 10th percentile is the score below which the lowest-performing 10% of pupils obtain. The difference between the highest- and lowest-performing pupils at the 90th and 10th percentiles, the interdecile range (shortened to range), is a better measure of the spread of scores for comparing countries than using the very highest- and lowest-performing pupils, as the latter comparison may be affected by a small number of pupils with unusually high or low scores.

In PISA 2025, the interdecile range between England's highest- and lowest-performing pupils was 268 points. This was significantly larger than the OECD average range of 244 points. The interdecile range for England's pupils in PISA 2022 was 252 points, which was significantly larger than the OECD trend average range of 237 points.

Figure 4.2 shows the trend in the distribution of PISA mathematics scores in England since PISA 2015. The interdecile range in PISA 2025 was significantly larger than the ranges in PISA 2022, PISA 2018 and PISA 2015.

Figure 4.2 Trends in the range in mathematics performance between the highest- and lowest-performing pupils in England



PISA cycle	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
2025	359	627	268
2022	366	617	* 252
2018	* 383	623	* 240
2015	369	* 613	* 245

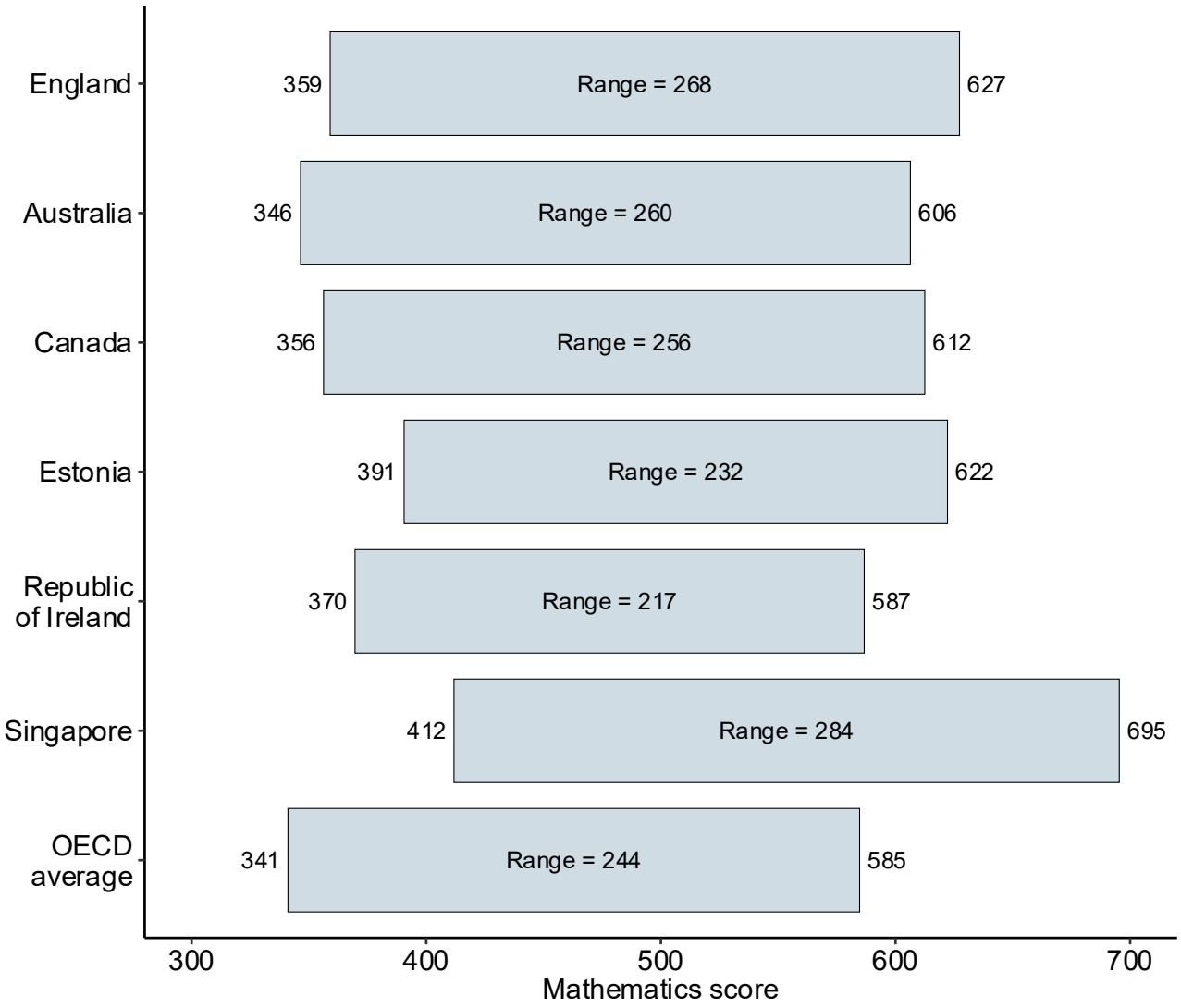
Base: All participating pupils in England.
Asterisks (*) indicate that the score shown was significantly different from the respective score for PISA 2025.
Interdecile ranges were calculated as 90th percentile – 10th percentile.
Interdecile ranges may appear inconsistent with percentile scores due to rounding.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

In PISA 2025, the score at the 90th percentile in mathematics in England was 627 points, and the score at the 10th percentile was 359 points. On average across OECD countries the score at the 90th percentile in mathematics was 585 points, which was significantly below the score in England. The average score across OECD countries at the 10th percentile was 341 points, which was also significantly below the respective score in England.

The interdecile range in Singapore (284) was significantly larger than in England, while the ranges in Estonia (232), Canada (256) and the Republic of Ireland (217) were significantly smaller than in England. There were no significant differences between the interdecile range in England and the range in Australia (260). Figure 4.3 shows the differences between the scores at the 90th and 10th percentiles in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore and the OECD average.

Figure 4.3 Range of mathematics performance between the highest- and lowest-performing pupils in England, comparator countries and the OECD average



Country	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
England	359	627	268
Australia	* 346	* 606	260
Canada	356	* 612	* 256
Estonia	* 391	622	* 232
Republic of Ireland	* 370	* 587	* 217
Singapore	* 412	* 695	* 284
OECD average	* 341	* 585	* 244

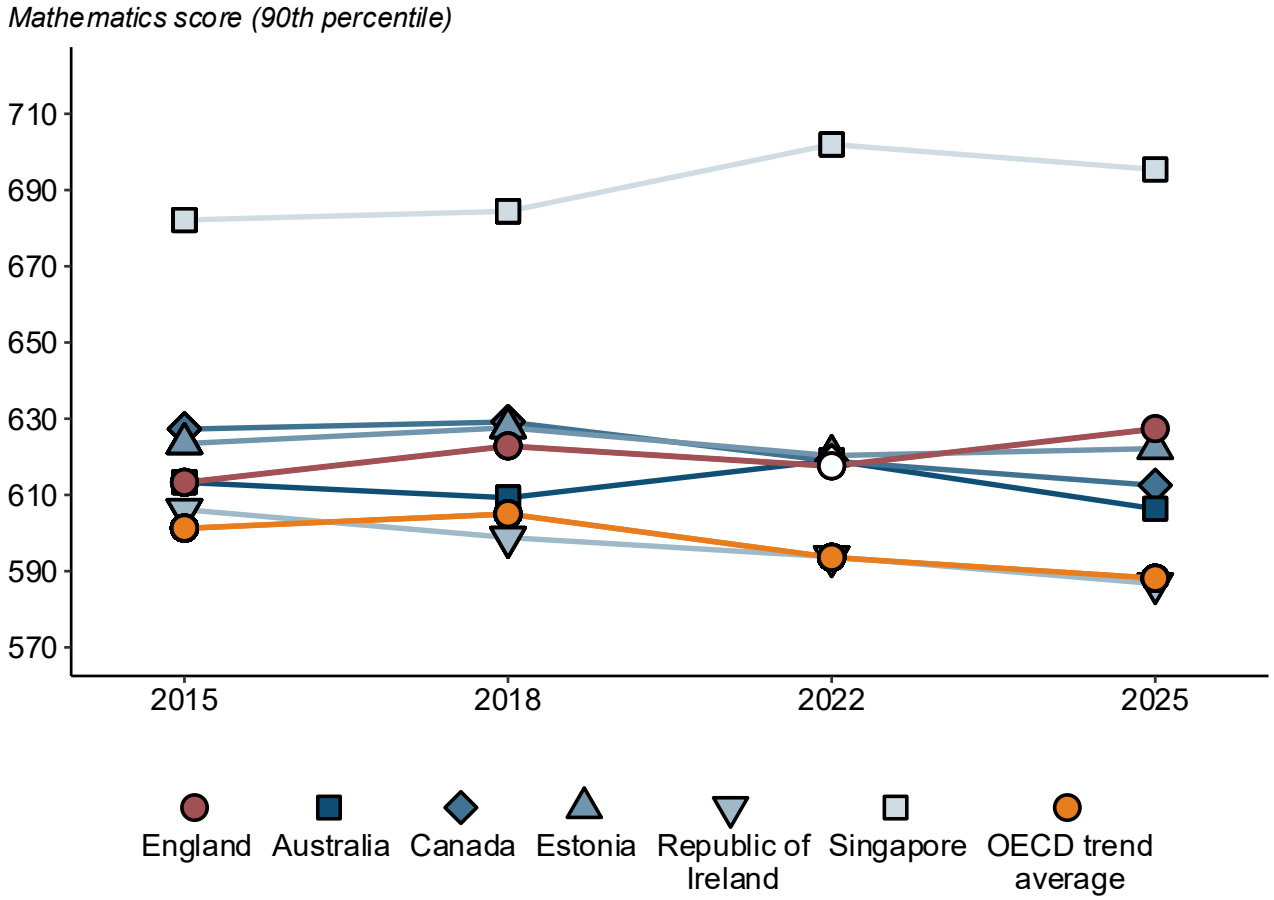
Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the respective score in England.
Interdecile ranges were calculated as 90th percentile – 10th percentile.
Interdecile ranges may appear inconsistent with percentile scores due to rounding.

Source: OECD PISA database for 2025

To further consider these differences between the highest- and the lowest-performing pupils in mathematics in England, scores at the 90th and 10th percentiles can be compared with those of other countries. While there have been no significant changes in the score at the 90th percentile in England since PISA 2022, the OECD trend average score at the 90th percentile in PISA 2025 (588) was significantly below that in 2022 (594). This contrasts with England, Canada, Estonia, the Republic of Ireland, and Singapore, where there was no significant difference in the score at the 90th percentile between PISA 2025 and PISA 2022. While the score at the 90th percentile in Australia in PISA 2025 (606) was significantly below the respective score in PISA 2022 (619), it was not significantly different from the scores in PISA 2018 (609) or 2015 (613).

Figure 4.4 shows the trends in the performance at the 90th percentile across the 4 most recent cycles of PISA for England, Australia, Canada, Estonia, the Republic of Ireland, Singapore, and the OECD trend average.

Figure 4.4 Trends in mathematics performance at the 90th percentile in England, comparator countries and on average across OECD trend countries



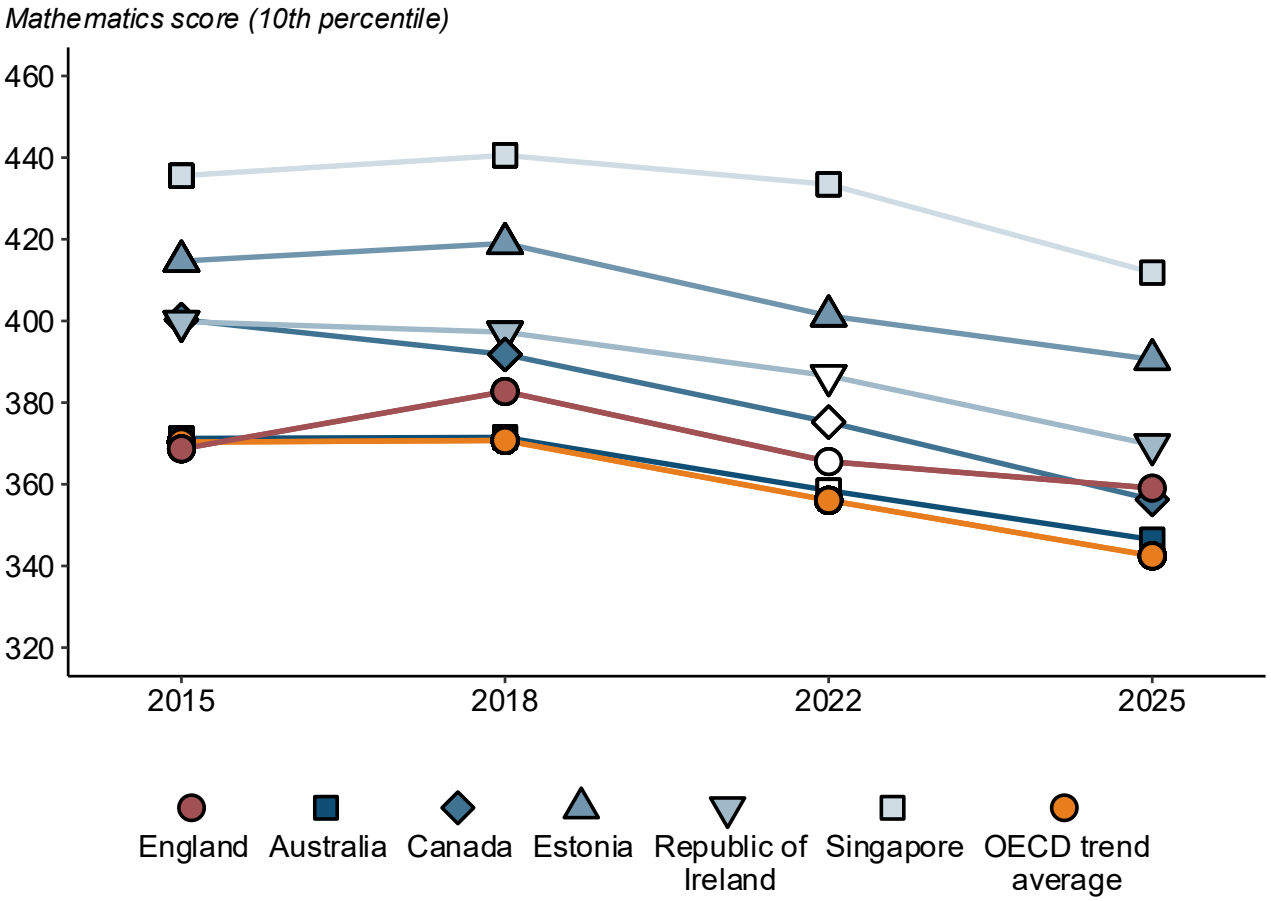
Country	2015	2018	2022	2025
England	* 613	623	617	627
Australia	613	609	* 619	606
Canada	* 627	* 629	619	612
Estonia	623	628	620	622
Republic of Ireland	* 606	* 599	594	587
Singapore	* 682	* 684	702	695
OECD trend average	* 601	* 605	* 594	588

Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

In England the score at the 10th percentile in PISA 2025 (359) was not significantly different from the scores in PISA 2022 (366) or in 2015 (369) but was significantly below the score in PISA 2018 (383). By contrast, on average across OECD trend countries and in all of the comparator countries there has been a decline in the score at the 10th percentile since PISA 2015. Figure 4.5 shows the trends in the performance at the 10th percentile across the 4 most recent cycles of PISA for England, Australia, Canada, Estonia, the Republic of Ireland, Singapore, and the OECD trend average.

Figure 4.5 Trends in mathematics performance at the 10th percentile in England, comparator countries and on average across OECD trend countries



Country	2015	2018	2022	2025
England	369	* 383	366	359
Australia	* 371	* 371	* 358	346
Canada	* 400	* 392	* 375	356
Estonia	* 415	* 419	* 401	391
Republic of Ireland	* 400	* 397	* 387	370
Singapore	* 436	* 441	* 433	412
OECD trend average	* 370	* 371	* 356	342

Base: All participating pupils in the included countries.
Asterisks (*) indicate that the score shown was significantly different from the score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

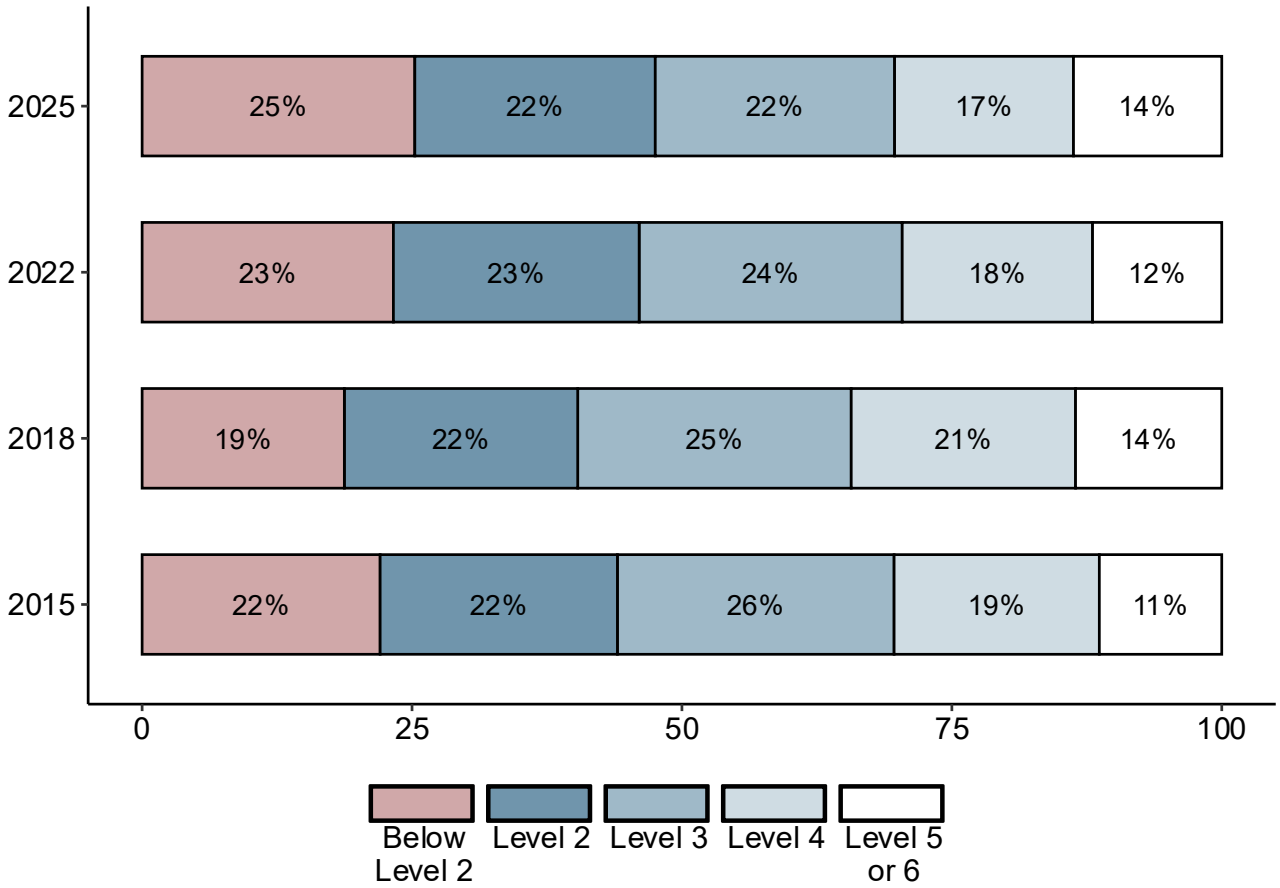
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

4.7 Performance across mathematics proficiency levels

Another way to examine the spread of performance is to look at performance in England at each of the PISA mathematics proficiency levels. The PISA proficiency levels describe the tasks that pupils performing at each level can do. They are devised internationally and are illustrated in the international report (OECD, 2026). Mathematics performance in PISA is described in terms of 6 proficiency levels (Levels 1–6, with Level 1 subdivided into 1c, 1b, and 1a). These proficiency levels are outlined in the PISA 2025 Assessment and Analytical Framework. Level 2 is considered the baseline level of proficiency in mathematics where pupils can begin to use mathematics in simple real-life situations, which is needed to participate fully in society.

In total, 14% of pupils in England performed at the highest mathematics proficiency levels (Levels 5 or 6), which was significantly larger than the OECD average of 8%. England had 25% of pupils working at the lower proficiency levels (below Level 2), which was significantly smaller than the OECD average of 35%. Figure 4.6 shows the percentage of pupils in England performing at each mathematics proficiency level over the 4 most recent cycles of PISA.

Figure 4.6 Percentage of pupils performing at each mathematics proficiency level in England in PISA 2025, 2022, 2018 and 2015



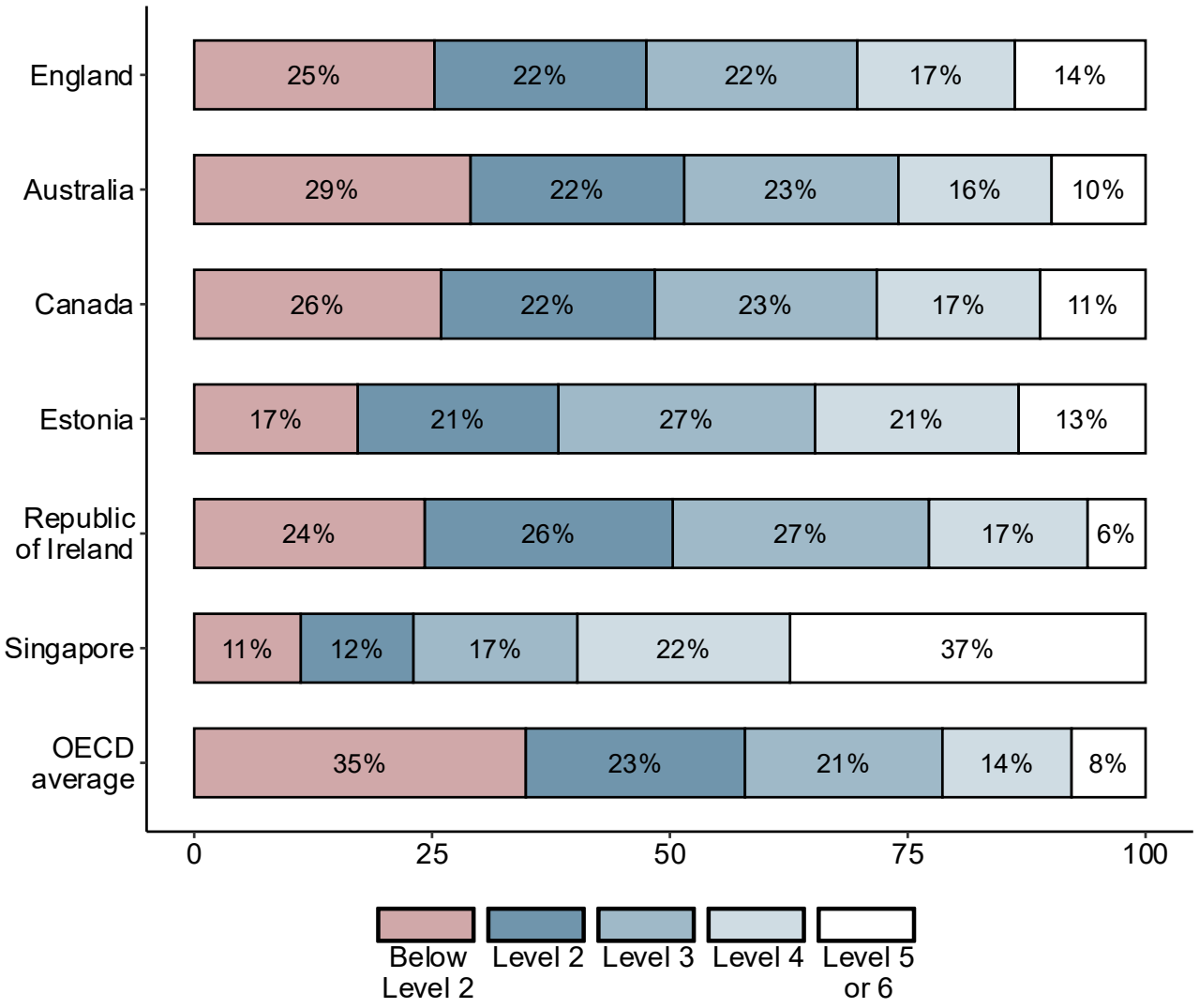
PISA cycle	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
2025	25%	22%	22%	17%	14%
2022	23%	23%	24%	18%	12%
2018	19%	22%	25%	21%	14%
2015	22%	22%	26%	19%	11%

Base: All participating pupils in England.
Individual percentages may not total 100% due to rounding.
It was not possible at the point of writing to calculate whether there were significant differences between percentages across the PISA cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

Figure 4.7 shows the percentage of pupils in England, Australia, Canada, Estonia, the Republic of Ireland, Singapore, and on average across OECD countries achieving each of the proficiency levels for mathematics in PISA 2025.

Figure 4.7 Percentage of pupils performing at each mathematics proficiency level in England, comparator countries and on average across OECD countries



Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	25%	22%	22%	17%	14%
Australia	* 29%	22%	23%	16%	* 10%
Canada	26%	22%	23%	17%	* 11%
Estonia	* 17%	21%	* 27%	* 21%	13%
Republic of Ireland	24%	* 26%	* 27%	17%	* 6%
Singapore	* 11%	* 12%	* 17%	* 22%	* 37%
OECD average	* 35%	23%	* 21%	* 14%	* 8%

Base: All participating pupils in the countries included.
Asterisks (*) indicate that the score shown was significantly different from the respective score in England.
Individual percentages for a country may not total 100% due to rounding.

Source: OECD PISA database for 2025

At the highest proficiency levels (Levels 5 or 6), the percentage of pupils in England (14%) was significantly larger than the percentages of pupils in Australia (10%), Canada (11%), and the Republic of Ireland (6%), but significantly smaller than the percentage of pupils in Singapore (37%) and not significantly different from the percentage of pupils in Estonia (13%).

At the lowest proficiency levels (below Level 2), the percentage of pupils in England (25%) was significantly smaller than the percentage of pupils in Australia (29%), not significantly different from the percentages of pupils in Canada (26%) or the Republic of Ireland (24%) but significantly larger than the percentages of pupils in Estonia (17%) and Singapore (11%).

5 Equity and Inclusion: Does performance differ by gender?

5.1 Chapter Overview

In this chapter, we explore differences in pupils' PISA average scores in science, reading, and mathematics by gender. As explained in Chapter 1, the OECD average is the average score for all the OECD countries participating in 2025. The OECD trend average is the average score for all the OECD countries that participated in each of the latest 4 PISA cycles (2015, 2018, 2022 and 2025), excluding Costa Rica and Spain.

5.2 Key findings

5.2.1 Science

- In 2025, the average science score for girls in England (509) was not significantly different from the average score for 2022, while the average science score for boys in England (522) was significantly[37] above the average score for 2022. There were no significant differences in the OECD trend averages for girls and boys over the same period.
- Over the longer term, girls' and boys' science scores in England were stable between 2015 and 2025. This was also the case for the OECD trend average for girls, while, for boys, the OECD trend average in 2025 was significantly below the score achieved in 2015.
- In 2025, there was a significant gender gap in science scores in England (−13 score points)[38] between the performance of girls and boys in England in science in PISA 2025 (509 for girls and 522 for boys), a significant change from the previous 3 PISA cycles when there were no significant differences between girls' and boys' science scores reported. Over the same period, the OECD trend average showed significant gender gaps in 2025 and 2018 (favouring girls) and in 2015 (favouring boys).
- There was no significant gender gap in England in 2025 in science scores at the 10th percentile[39] of science scores, while girls performed significantly below boys at the 90th percentile of science scores.
- In England, the percentage of girls (11%) who achieved the highest science proficiency levels (Levels 5 and 6) in 2025 was significantly smaller than the

[37] See Chapter 1 Section 1.4.2 for an explanation of statistical significance.
[38] Gaps were calculated as girls' scores − boys' scores. A negative number indicates the average score for girls is below the average score for boys.
[39] See Chapter 2 Section 2.6 for an explanation of percentiles.

percentage of boys (16%), while there was no significant difference in the percentages of girls (17%) and boys (16%) performing below the baseline science proficiency level.

5.2.2 Reading

- In 2025, girls and boys in England achieved average scores of 503 and 492, respectively, in reading. Both scores were not significantly different from the respective scores achieved in 2022. By contrast, the OECD trend average scores for both girls and boys in 2025 were significantly below the scores achieved in 2022.
- Over the longer term, girls' and boys' reading scores in England were also stable between 2015 and 2025 while, over the same period, the OECD trend averages for both girls and boys in 2025 were significantly below the scores achieved in 2015.
- In 2025, girls in England significantly outperformed boys in terms of average reading scores, although the gender gap significantly narrowed from 23 points in 2015 to 11 points in 2025. Over the same period, there was also a significant gender gap in favour of girls in the OECD trend average with the gap widening from 27 points in 2015 to 30 points in 2025.
- The gender gap in average reading scores in favour of girls in England in 2025 was mirrored at the 10th percentile of reading scores, while at the 90th percentile girls' and boys' reading scores were not significantly different.
- In England, there was no significant difference between the percentages of girls and boys who achieved the highest reading proficiency levels (10% compared with 9% at Levels 5 or 6) in PISA 2025, while a significantly smaller percentage of girls performed below the baseline reading proficiency level (16% compared with 21% for boys below Level 2).

5.2.3 Mathematics

- In 2025, girls and boys in England achieved average scores of 478 and 504, respectively, in mathematics. For girls and boys, these scores were not significantly different from those recorded in 2022. However, the OECD trend average mathematics scores for girls and boys in 2025 were significantly below the scores achieved in 2022.
- Over the longer term, between 2015 and 2025, both girls' and boy's mathematics scores in England were stable, while the OECD trend averages for girls and boys in 2025 were both significantly below the equivalent scores in 2015.
- In 2025, boys significantly outperformed girls in terms of average mathematics scores, mirroring the pattern observed in the previous 3 PISA cycles. This was the

case for England and for the OECD trend average. There was a significant widening of the mathematics gender gap over this period in England and in the OECD trend average.

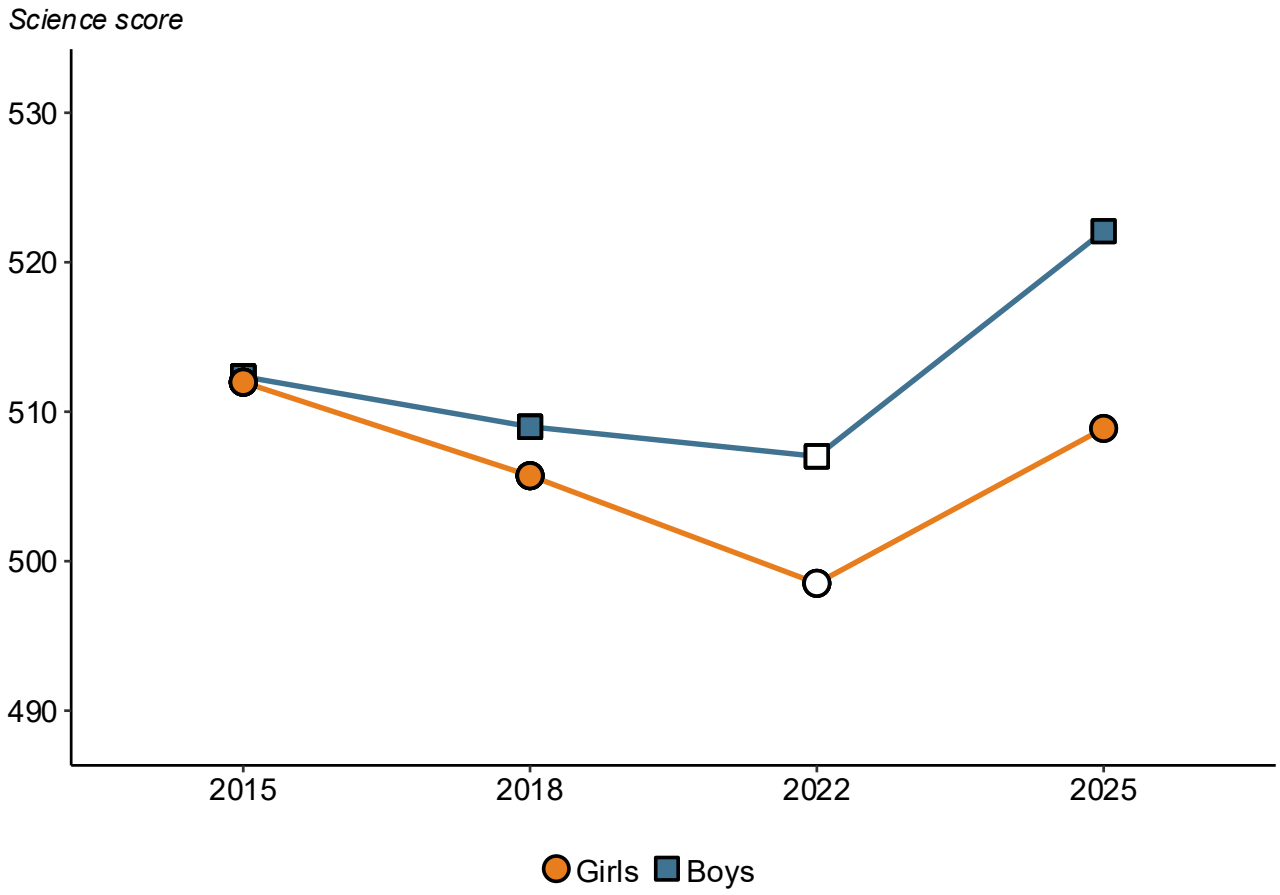
- The 2025 gender gap in average mathematics scores in favour of boys in England was not observed at the 10th percentile mathematics scores, while boys scored significantly above girls at the 90th percentile.
- A significantly smaller percentage of girls achieved the highest mathematics proficiency levels compared with boys (10% compared with 17% at Levels 5 or 6) and a significantly larger percentage of girls performed below the baseline mathematics proficiency level (28% compared with 22% below Level 2).

5.3 Science

5.3.1 How did girls and boys in England perform in science?

In PISA 2025, the average science score for girls in England (509) was not significantly different from the average scores for each of the previous 3 cycles. The average score for boys in England (522) was significantly above the average scores for PISA 2022 (507) and 2018 (509) but was not significantly different from the score in 2015 (see Figure 5.1).

Figure 5.1 Trend in girls' and boys' science performance in England



Gender	2015	2018	2022	2025
Girls	512	506	499	509
Boys	512	* 509	* 507	522

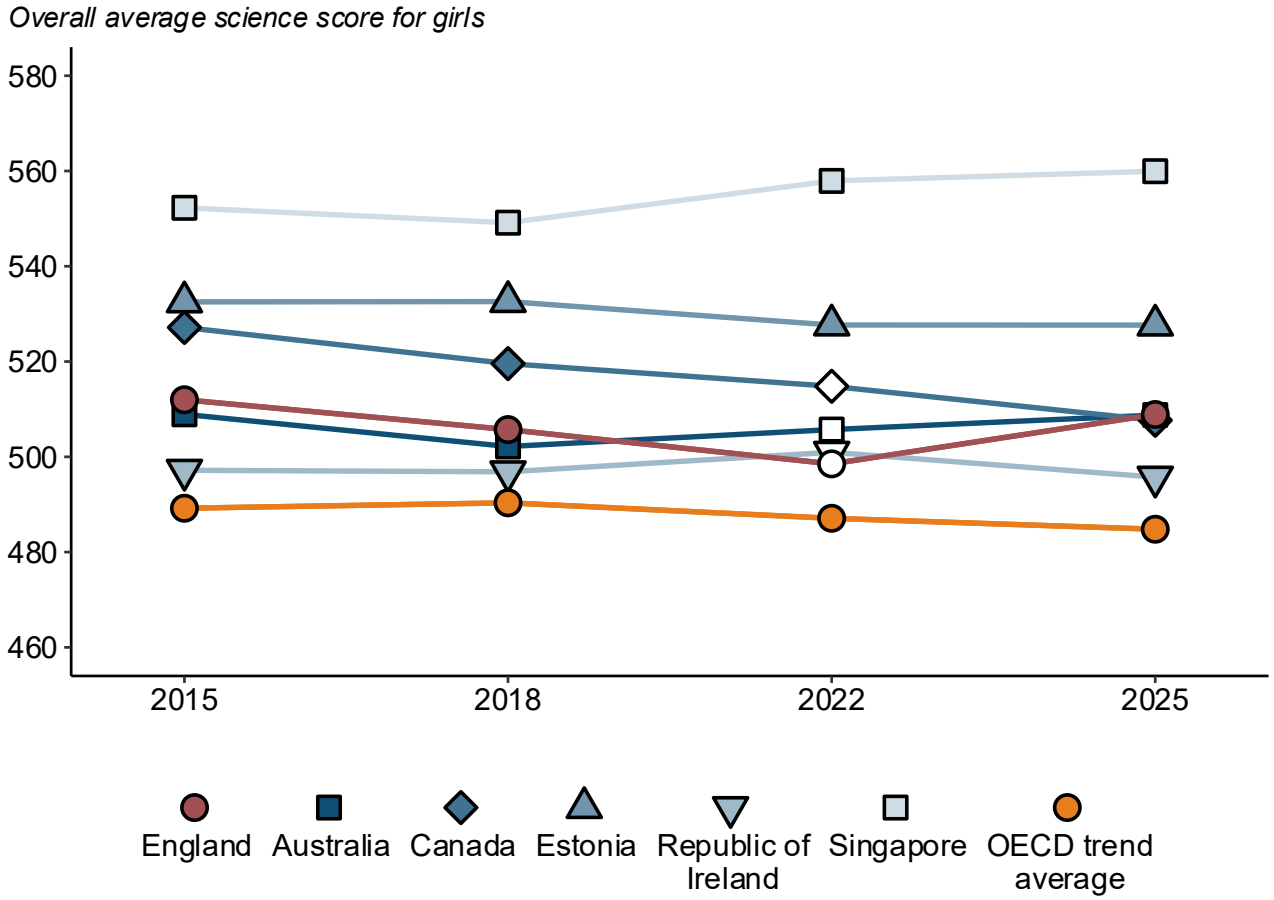
Base: All participating pupils in England.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

5.3.2 What does PISA tell us about girls' performance in science?

There was a stable trend for girls' science performance in England, with the average score in 2025 (509) not significantly different from that in 2015 (512). The score in PISA 2025 was also not significantly different to scores in 2022 and 2018. Figure 5.2 shows that this pattern was also observed in Australia, Estonia, and the Republic of Ireland, and in the OECD trend average. In Singapore, the average score for girls in 2025 (560) was significantly above the score in 2018 (549), but the longer-term trend was stable between 2015 and 2025. By contrast, in Canada, there was a significant downward trend when comparing girls' average score in 2025 (508) with the score in 2015 (527).

Figure 5.2 Trends in girls' science performance in England, comparator countries and the OECD trend average



Country	2015	2018	2022	2025
England	512	506	499	509
Australia	509	502	506	509
Canada	* 527	* 520	515	508
Estonia	533	533	528	528
Republic of Ireland	497	497	501	496
Singapore	552	* 549	558	560
OECD trend average	489	490	487	485

Base: All participating pupils in the countries included.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

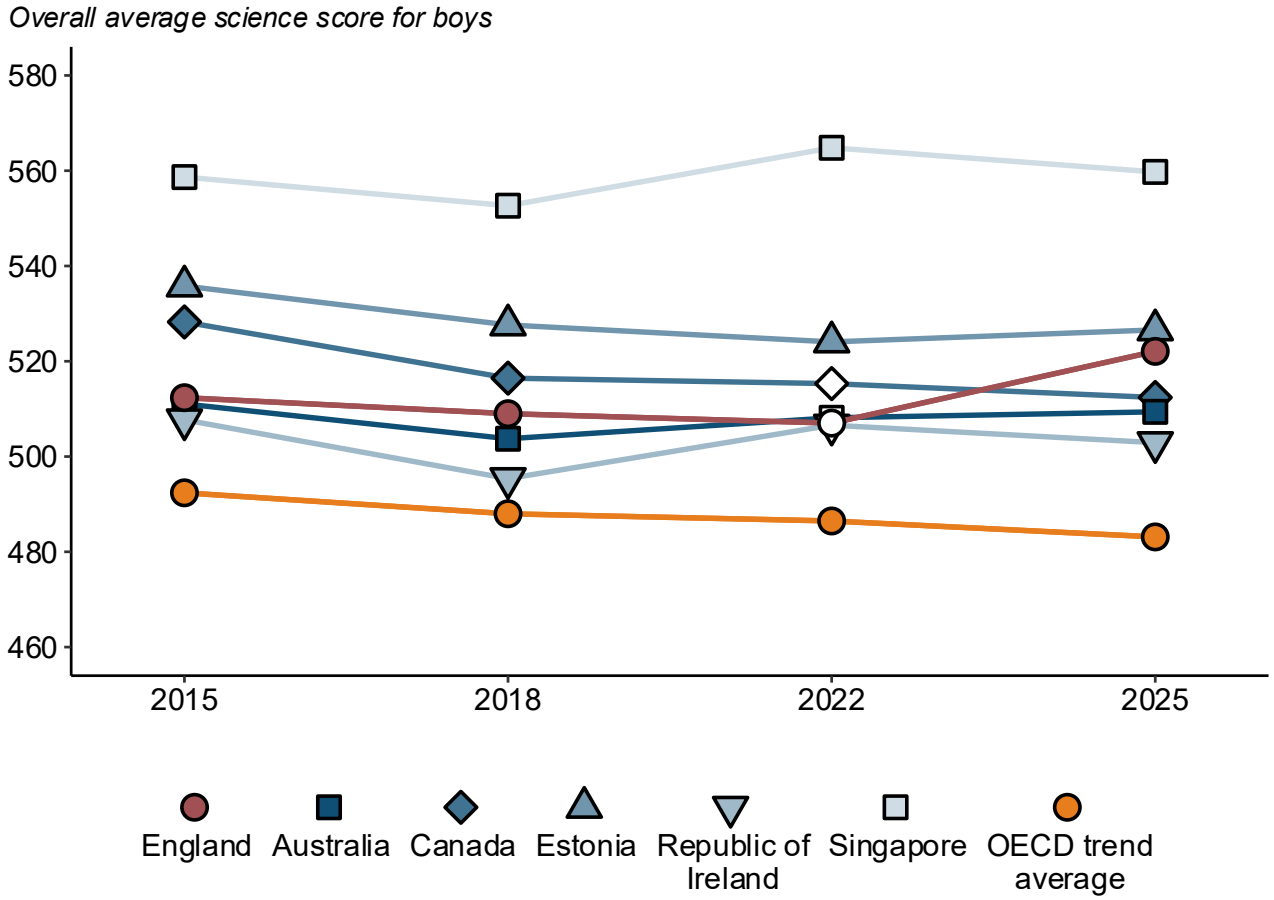
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

5.3.3 What does PISA tell us about boys' performance in science?

In England, the average score for boys in 2025 (522) was significantly above the scores for both 2022 (507) and 2018 (509). England was the only country to see this pattern when compared with boys' scores in each of the comparator countries and the OECD trend average.

As shown in Figure 5.3, the trend for England's boys was stable between 2015 and 2025 with the respective average scores (512 and 522) not significantly different. This pattern was also observed in each comparator country except Canada where there was a significant downward trend in science scores between 2015 (528) and 2025 (512), mirroring the pattern of the corresponding OECD trend averages (492 and 483 respectively).

Figure 5.3 Trends in boys' science performance in England, comparator countries and the OECD trend average



Country	2015	2018	2022	2025
England	512	* 509	* 507	522
Australia	511	504	508	509
Canada	* 528	516	515	512
Estonia	536	528	524	527
Republic of Ireland	508	495	507	503
Singapore	559	553	565	560
OECD trend average	* 492	488	486	483

Base: All participating pupils in the countries included.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

5.3.4 How have gender gaps in science performance changed over time?

As shown in Figure 5.4, there was a significant gap (−13 score points)[40] between the performance of girls and boys in England in 2025. By contrast, there was no significant difference between girls' and boys' science scores in 2022, 2018 or 2015.

In Australia, there were no significant gaps between the scores for girls and boys in each of the latest 4 cycles, while in Canada a significant gap only occurred in 2025 (−5 points) and in Estonia only in 2018 (5 points). Girls in the Republic of Ireland performed significantly below boys in 2015 (−11 points) and 2025 (−7 points). This was also the case for girls in Singapore in both 2015 (−6 points) and 2022 (−7 points). However, there was no significant gap in Singapore in 2025 (0 points). The OECD trend averages show significant gaps favouring girls in 2025 and 2018 and boys in 2015, with no significant difference in 2022.

In 2025, England's gender gap (−13 points) was significantly different from the gaps in each comparator country (except the Republic of Ireland), as well as the OECD trend average gap.

[40] Gaps were calculated as girls' scores − boys' scores. A negative number indicates the average score for girls is below the average score for boys.

Figure 5.4 Gender gaps in pupils' science performance in England, comparator countries and the OECD trend average

Country	2015	2018	2022	2025
England	0	–3	–8	* –13
Australia	–2	–2	–2	–1
Canada	–1	3	–1	* –5
Estonia	–3	* 5	4	1
Republic of Ireland	* –11	1	–6	* –7
Singapore	* –6	–4	* –7	0
OECD trend average	* –3	* 2	1	* 2

Base: All participating pupils in the countries included.
Gaps were calculated as girls' scores − boys' scores. A negative number indicates the average score for girls is below the average score for boys.
The length of each bar represents the gap before rounding but the figure reported is the gap after rounding. Two countries with the same or similar gap may have different outcomes from significance testing due to the different sample sizes and rounding.
Asterisks (*) indicate that girls' average scores are significantly different from boys' average scores within individual PISA cycles.
Caution is required when interpreting estimated changes in score because one or more PISA sampling standards were not met in PISA 2022 in some of the included countries.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

The trend in England between 2015 and 2025 was a significant widening of the science gender gap (0 points in 2015 compared with −13 points in 2025). By contrast, in each of the comparator countries, the trends between 2015 and 2025 were stable with score differences between these two cycles not significant.

Table 5.1 places England's gender gap in science the context of all higher-performing countries in PISA 2025 (where pupils achieved an average science score above 440)[41]. In 7 countries (including England), the average science score for girls was significantly below the score for boys. In 27 countries, there was no significant difference between girls' and boys' average scores. In 11 countries, the average score for girls was significantly above the score for boys, as was the case for the OECD average.

[41] Gaps were calculated as girls' scores − boys' scores. A negative number indicates that, on average, the score for girls was below the score for boys.

Table 5.1 Gender gaps in science performance in higher-performing countries

Gender gaps in science performance	Country and gender gap in the average score in science between girls and boys
Countries where the average score in science for girls was significantly above that for boys	Finland (+22), Slovenia (+21), Croatia (+20), Malta (+19), Israel (+13), Sweden (+12), Latvia (+12), United Arab Emirates (+11), Taiwan (+11), Lithuania (+10), Norway (+10), and **OECD average (+1)**
Countries where there was no significant difference between the average scores in science for girls and boys	France (+6), Switzerland (+5), Netherlands (+5), Slovak Republic (+5), Ukrainian regions (17 of 27) (+4), Portugal (+4), Czech Republic (+3), New Zealand (+2), South Korea (+2), Iceland (+2), Belgium (+2), Poland (+1), Estonia (+1), Vietnam (+1), Singapore (0), Spain (0), Australia (−1), Macao (−1), Denmark (−1), Luxembourg (−1), Uruguay (−2), Austria (−3), Germany (−3), Italy (−3), Türkiye (−4), Hungary (−8), and United States (−8)
Countries where the average score in science for girls was significantly below that for boys	Canada (−5), Republic of Ireland (−7), Chile (−9), Japan (−10), **England (−13)**, B-S-J-Z (China) (−14), and Hong Kong (−16)

Base: All participating countries with average scores over 440 in science in PISA 2025.
Gaps were calculated as girls' scores − boys' scores. A negative number indicates the average score for girls is below the average score for boys.
Two countries with the same or similar gap may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

5.3.5 How did girls and boys in England perform at the 10th and 90th percentiles in science

This section compares the performance of the highest− and lowest−achieving girls and boys using the 10th (lowest) and 90th (highest) percentile scores for science and provides the difference (the interdecile range, shortened to range) between these two scores.

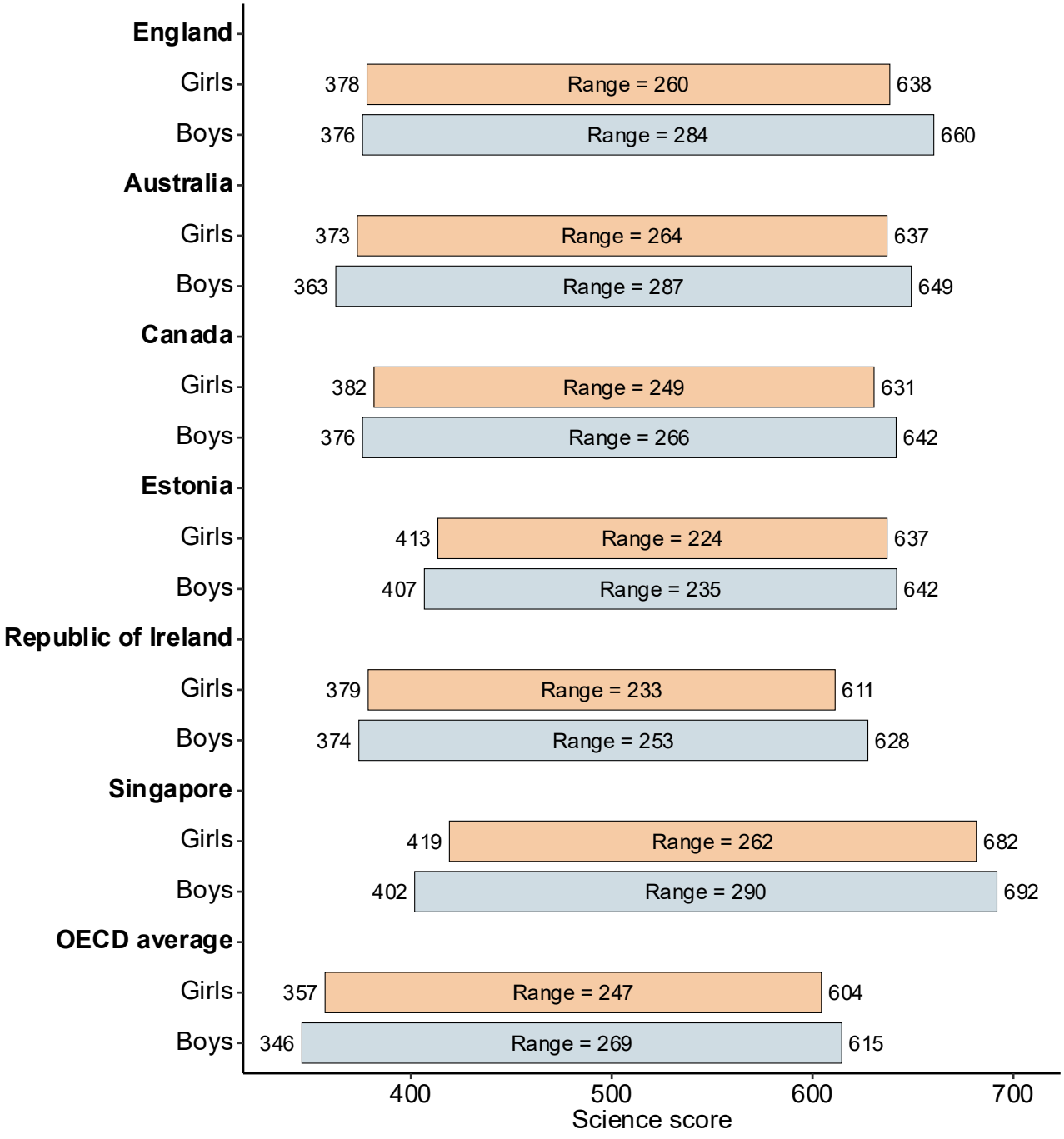
Figure 5.5 shows the average scores at the 10th and 90th percentiles and interdecile ranges for pupils in England, its comparator countries and the OECD average while Table 5.2 shows the significance of differences between girls' and boys' average scores and gender gaps.

In PISA 2025, the average science score for girls at the 10th percentile in England (378) was not significantly different from the corresponding score for boys (376). This pattern was also observed in Canada, Estonia and the Republic of Ireland. By contrast, the OECD average science score for girls at the 10th percentile (357) was significantly above the

score for boys (346), a gender gap of 12 points after rounding. This pattern was also observed in Australia and Singapore.

The score at the 90th percentile for girls in England (638) was significantly below the score for boys (660), a gender gap of −22 points. This significant gender gap was also reflected in the OECD average, with girls (604) performing significantly below boys (615) at the 90th percentile, a gap of −10 points. Only in Estonia among the comparator countries was the score for girls not significantly below the score for boys at the 90th percentile.

Figure 5.5 Performance of girls and boys at the 10th and 90th percentiles in science in England, comparator countries and the OECD average



Country	Group	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
England	Girls	378	638	260
England	Boys	376	660	284
Australia	Girls	373	637	264
Australia	Boys	363	649	287
Canada	Girls	382	631	249
Canada	Boys	376	642	266
Estonia	Girls	413	637	224
Estonia	Boys	407	642	235
Republic of Ireland	Girls	379	611	233
Republic of Ireland	Boys	374	628	254
Singapore	Girls	419	682	262
Singapore	Boys	402	692	290
OECD average	Girls	357	604	247
OECD average	Boys	346	615	269

Base: All participating pupils in the countries included.
Interdecile ranges were calculated as 90th percentile − 10th percentile.
Interdecile ranges may appear inconsistent due to rounding.

Source: OECD PISA database for 2025

The range of scores in England for girls (260) was significantly narrower than the range for boys (284) by −24 points. This gender gap in England was driven by the significantly stronger performance of boys at the 90th percentile (a 22-point difference). By contrast, the gender gap across the OECD countries was driven by a combination of boys' significantly weaker performance at the 10th percentile and significantly stronger performance at the 90th percentile.

As in England and the OECD average, in each of the comparator countries apart from Estonia, the range of scores for girls was also significantly narrower than the range for boys. In Estonia the ranges of science scores for girls and boys were not significantly different.

Table 5.2: Gender gap at the 10th and 90th percentiles in science in England, comparator countries and the OECD average

Country	Gender gap at the 10th percentile	Gender gap at the 90th percentile	Gender gap in the interdecile range
England	2	* −22	* −24
Australia	* 11	* −12	* −23
Canada	6	* −11	* −17
Estonia	7	−5	−11
Republic of Ireland	5	* −16	* −21
Singapore	* 17	* −10	* −28
OECD average	* 12	* −10	* −22

Base: All participating pupils in the countries included.
Gaps were calculated as girls' scores − boys' scores and range of girls' scores − range of boys' scores.
Asterisks (*) indicate a significant gender gap (significant difference between girls' and boys' scores and significant difference in ranges of scores).
Two countries with the same or similar score or gap may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

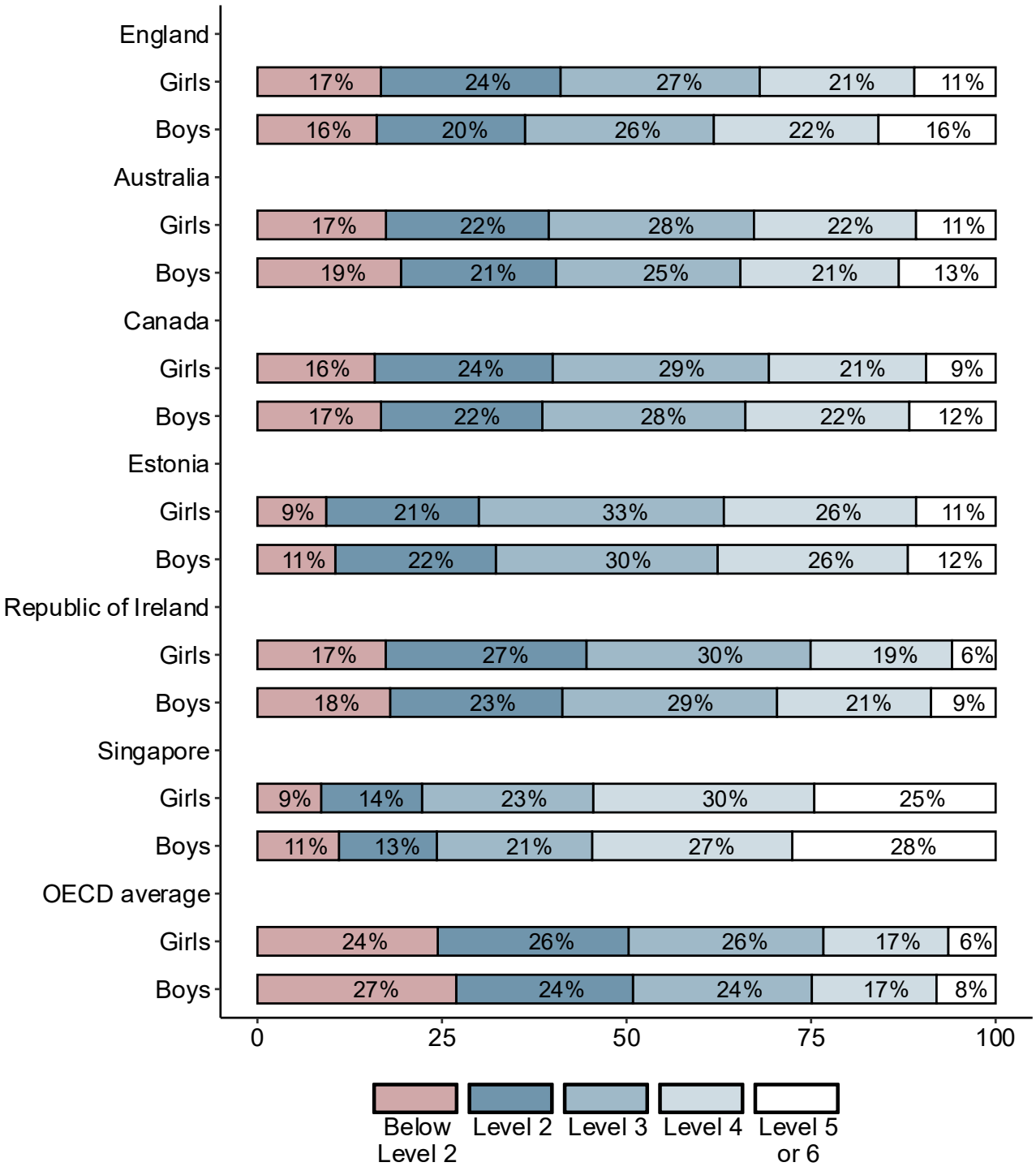
5.3.6 To what extent did girls and boys in England reach the highest and lowest PISA proficiency levels in science compared with the comparator countries and the OECD averages?

This section compares girls' and boys' performance in terms of the percentages attaining each of the PISA proficiency levels for science (levels range between 1 and 6). In this section the proportion of higher-performing girls and boys (those attaining Level 5 or 6) and lower-performing girls and boys (those attaining below Level 2) are compared.

Figure 5.6 shows the percentage of girls and boys achieving each science proficiency level in England, its comparator countries and the OECD average while Table 5.3 shows the significance of differences between girls' and boys' achievement at these levels.

In PISA 2025, the percentage of girls in England performing at Levels 5 or 6 in science (11%) was significantly smaller than the percentage of boys (16%), a gap of −5 points. The corresponding OECD averages show the same pattern of significant difference (6% of girls and 8% of boys respectively). There was no significant difference between the percentages of girls (17%) and boys (16%) performing below Level 2 in England while there was between the corresponding OECD averages (24% of girls and 27% of boys respectively).

Figure 5.6 Percentage of girls and boys performing at each science proficiency level in England, comparator countries and the OECD average



Country	Group	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	Girls	17%	24%	27%	21%	11%
England	Boys	16%	20%	26%	22%	16%
Australia	Girls	17%	22%	28%	22%	11%
Australia	Boys	19%	21%	25%	21%	13%
Canada	Girls	16%	24%	29%	21%	9%
Canada	Boys	17%	22%	28%	22%	12%
Estonia	Girls	9%	21%	33%	26%	11%
Estonia	Boys	11%	22%	30%	26%	12%
Republic of Ireland	Girls	17%	27%	30%	19%	6%
Republic of Ireland	Boys	18%	23%	29%	21%	9%
Singapore	Girls	9%	14%	23%	30%	25%
Singapore	Boys	11%	13%	21%	27%	28%
OECD average	Girls	24%	26%	26%	17%	6%
OECD average	Boys	27%	24%	24%	17%	8%

Base: All participating pupils in the countries included.
Individual percentages may not total 100% due to rounding.

Source: OECD PISA database for 2025

As in England, the percentage of girls performing at Levels 5 or 6 was significantly smaller than the percentage of boys in each of the comparator countries, except in Estonia. Only in Australia and Singapore were the percentages of girls performing below Level 2 significantly smaller than the percentages of boys (17% compared with 19% and 9% compared with 11% respectively).

Table 5.3 Gender gap in the percentage of pupils at each proficiency level in science in England, comparator countries and the OECD average

Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	1%	* 4%	1%	−1%	* −5%
Australia	* −2%	1%	* 3%	0%	* −2%
Canada	−1%	* 2%	* 2%	−1%	* −2%
Estonia	−1%	−1%	3%	0%	−1%
Republic of Ireland	−1%	* 4%	1%	−2%	* −3%
Singapore	* −2%	0%	2%	* 3%	* −3%
OECD average	* −2%	* 2%	* 2%	0%	* −2%

Base: All participating pupils in the countries included.
Gaps were calculated as percentage of girls − percentage of boys. A negative number indicates the percentage for girls is below the percentage for boys.
Asterisks (*) indicate significant gender gaps.
Two countries with the same or similar percentages may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

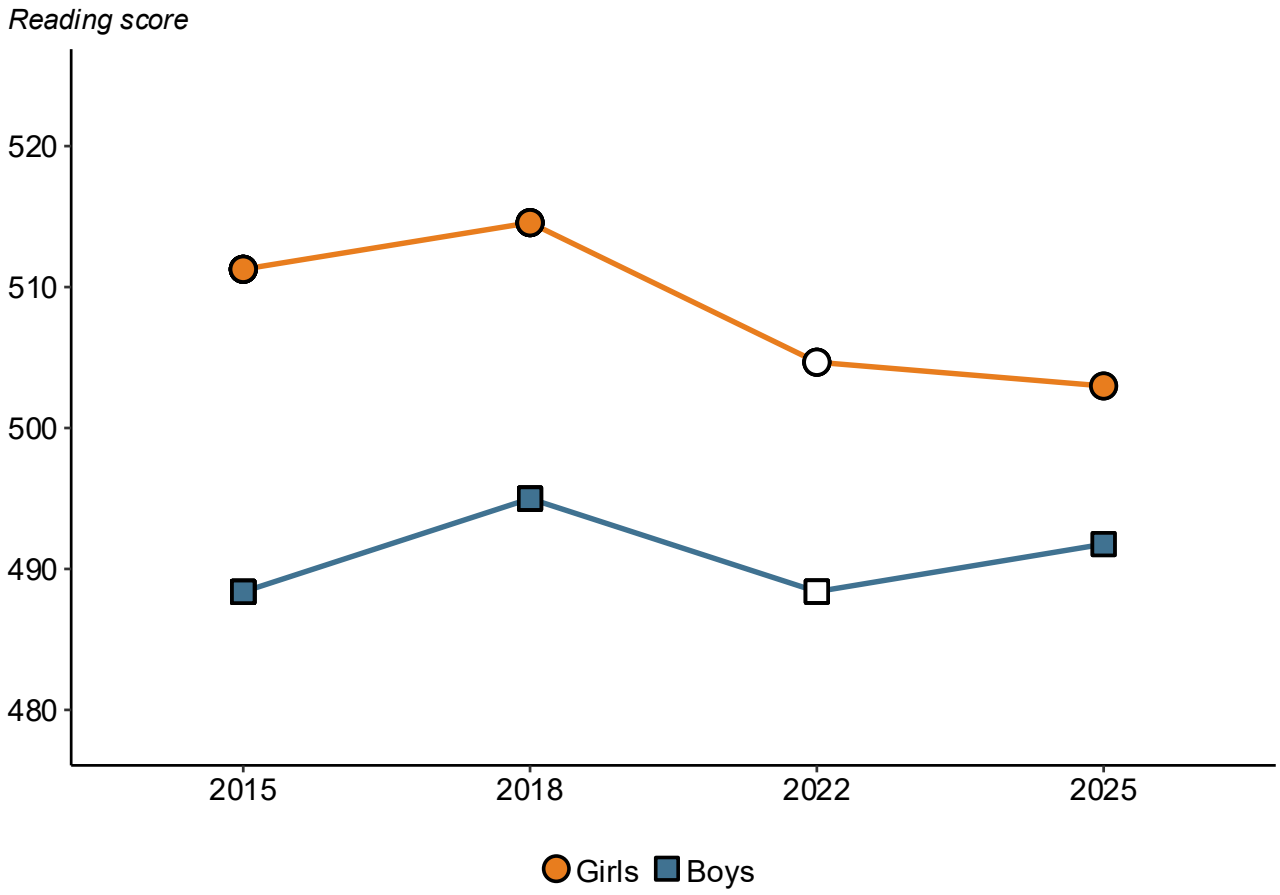
5.4 Reading

5.4.1 How did girls and boys in England perform in reading?

As shown in Figure 5.7, in England, the average score for girls in PISA 2025 (503) was not significantly different from the corresponding scores in 2022 (505) and 2015 (511). However, it was significantly below the average score in 2018 (515).

The average score for boys in 2025 (492) was not significantly different from the corresponding scores for each of the previous 3 cycles (see Figure 5.7).

Figure 5.7 Trend in girls' and boys' reading performance in England



Gender	2015	2018	2022	2025
Girls	511	* 515	505	503
Boys	488	495	488	492

Base: All participating pupils in England.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

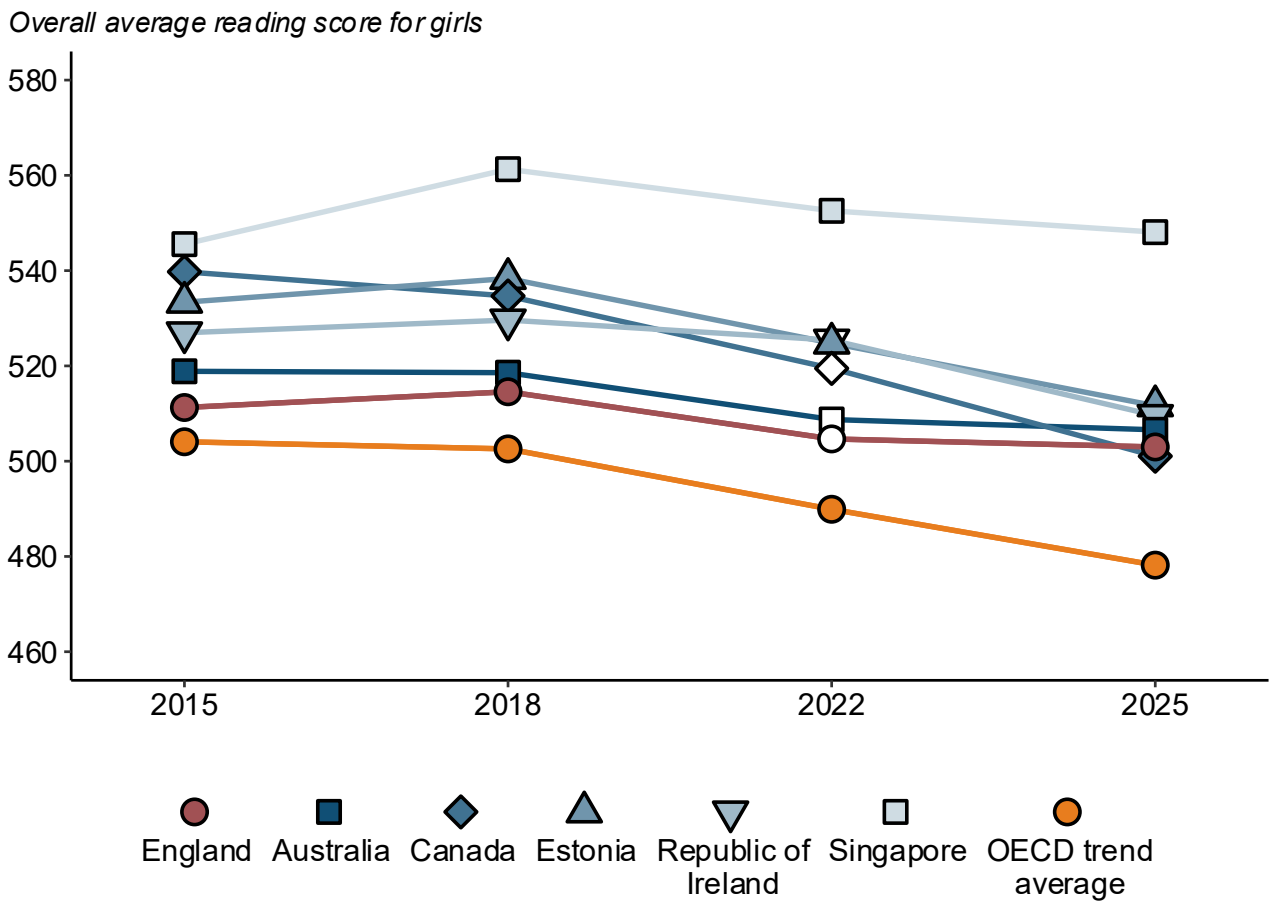
5.4.2 What does PISA tell us about girls' performance in reading?

The average reading scores for girls in England show a stable trend between 2015 and 2025 with no significant difference between the scores (511 and 503 respectively). The same pattern was observed in Singapore. By contrast, the average scores in each of the other comparator countries and the OECD trend average show the score for 2025 to be significantly below the score for 2015, reflecting downward trends.

In 2025, the average scores in England, each of the comparator countries and the OECD trend were significantly below the equivalent scores in 2018. In England, Australia and Singapore the reading score for 2025 was not significantly below the score for 2022 while

the reverse was the case for the remaining comparator countries and the OECD trend average

Figure 5.8 Trends in girls' reading performance in England, comparator countries and the OECD trend average



Country	2015	2018	2022	2025
England	511	* 515	505	503
Australia	* 519	* 519	509	507
Canada	* 540	* 535	* 519	501
Estonia	* 533	* 538	* 525	512
Republic of Ireland	* 527	* 530	* 525	510
Singapore	546	* 561	553	548
OECD trend average	* 504	* 503	* 490	478

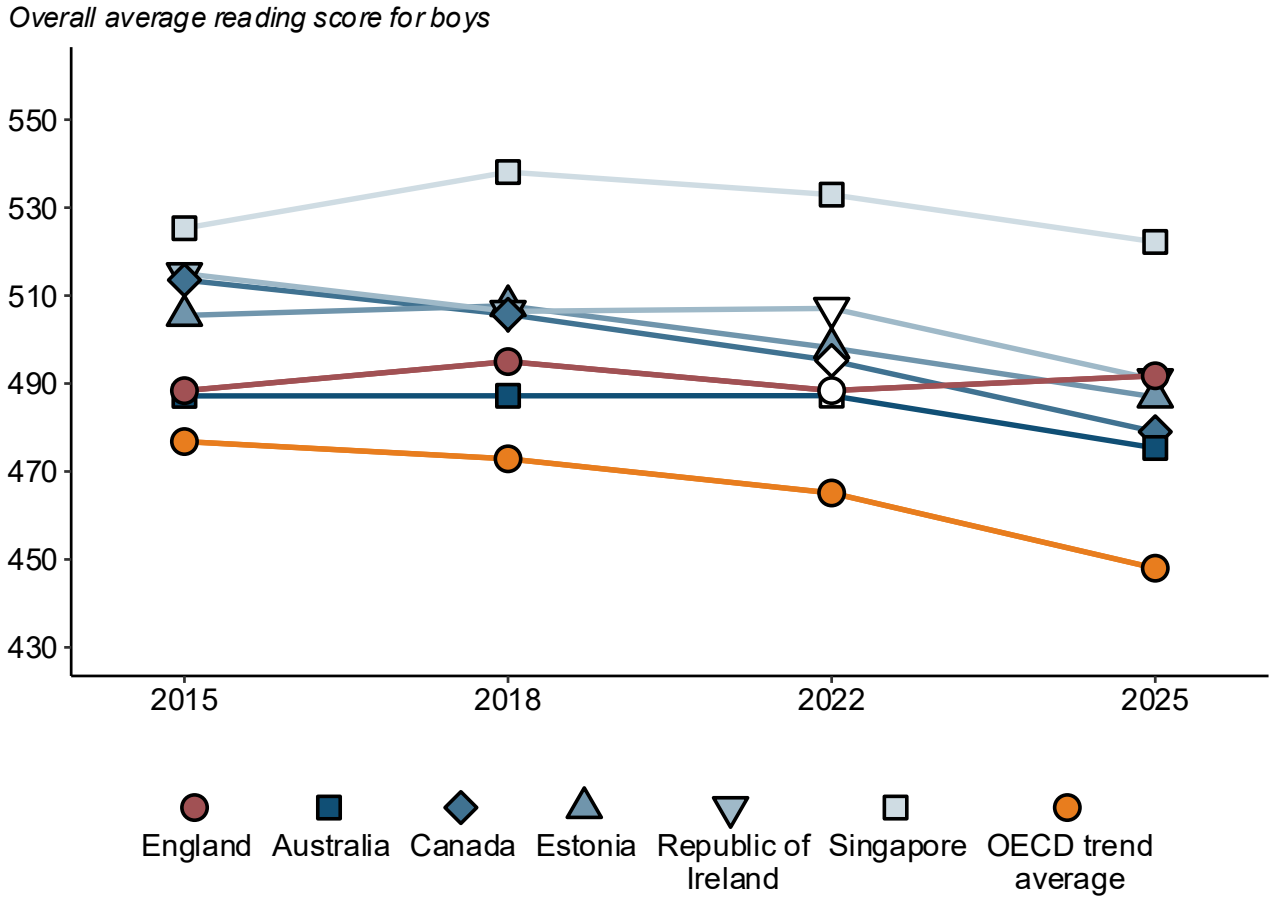
Base: All participating pupils in the countries included.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

5.4.3 What does PISA tell us about boys' performance in reading?

The trend for boys' reading performance in England was stable between 2015 and 2025 (see Figure 5.9). Similarly, the average score for 2025 (492) was not significantly different from the corresponding scores in 2018 (495) and 2022 (488). The longer term trend was also observed for boys in Singapore. By contrast, the average scores for 2025 in each of the other comparator countries and the OECD trend average were significantly below the corresponding scores in 2015, reflecting downward trends. In each comparator country boys' science scores in 2022 and 2018 were also significantly below the scores in 2025.

Figure 5.9 Trends in boys' reading performance in England, comparator countries and the OECD trend average



Country	2015	2018	2022	2025
England	488	495	488	492
Australia	* 487	* 487	* 487	475
Canada	* 514	* 506	* 495	479
Estonia	* 505	* 508	* 498	487
Republic of Ireland	* 515	* 506	* 507	491
Singapore	525	* 538	* 533	522
OECD trend average	* 477	* 473	* 465	448

Base: All participating pupils in the countries included.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

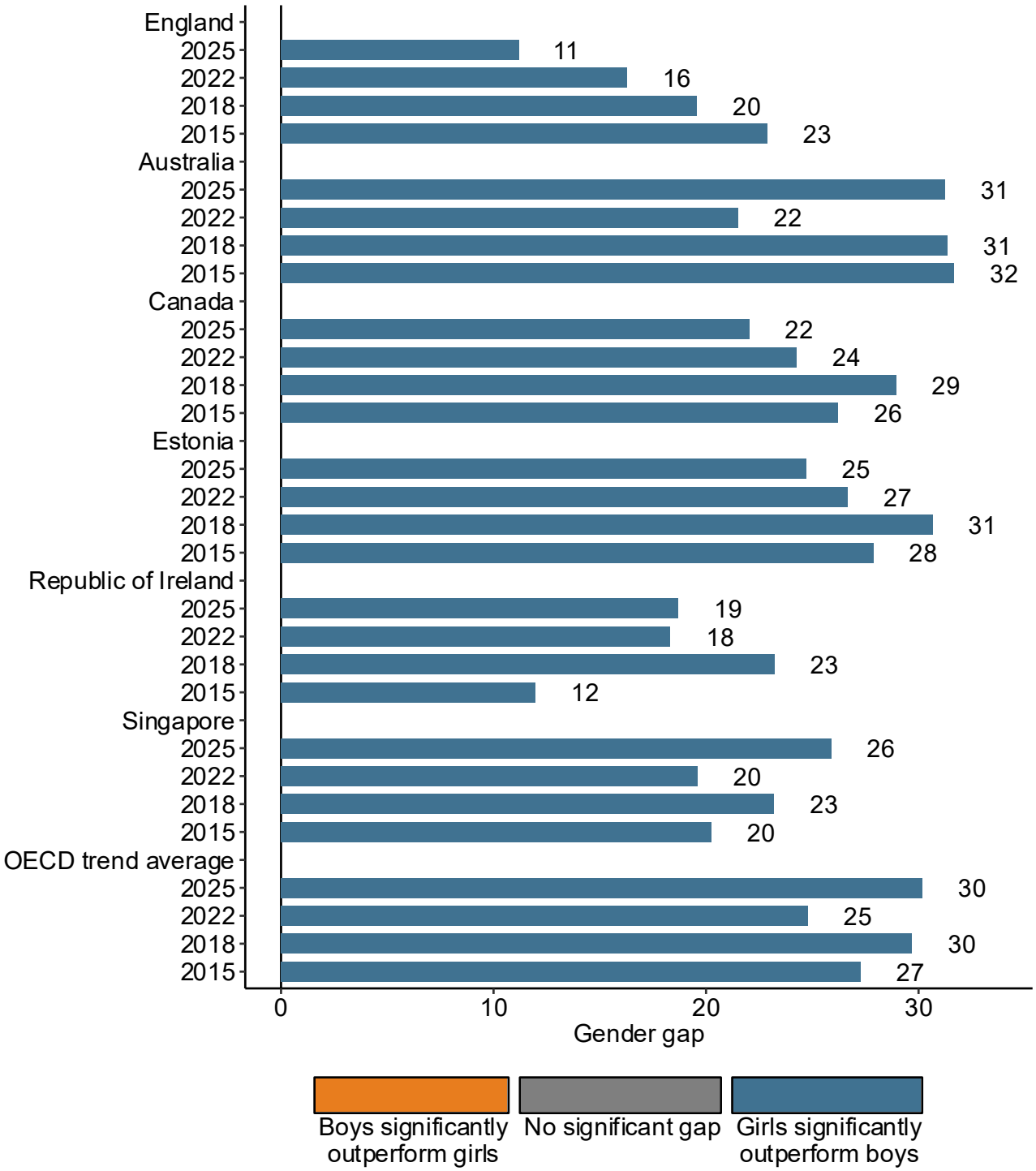
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

5.4.4 How have gender gaps in reading performance changed over time?

As shown in Figure 5.10, in 2025 there was a significant gap of 11 points between the average reading score for girls in England and the average score for boys. The gender gap in England (11 points) was significantly narrower than the OECD trend average gap (30 points) and the gaps in each of the comparator countries in 2025 (Australia 31 points, Canada 22 points, Estonia 25 points, Singapore 26 points) apart from the Republic of Ireland where the gender gap in reading in 2025 (19 points) was not significantly different from the gap in England.

In each comparator country, as in England and the OECD trend averages, gender gaps show girls significantly outperforming boys in each of the latest 4 PISA cycles.

Figure 5.10: Gender gaps in reading performance in England, comparator countries and the OECD trend average



Country	2015	2018	2022	2025
England	* 23	* 20	* 16	* 11
Australia	* 32	* 31	* 22	* 31
Canada	* 26	* 29	* 24	* 22
Estonia	* 28	* 31	* 27	* 25
Republic of Ireland	* 12	* 23	* 18	* 19
Singapore	* 20	* 23	* 20	* 26
OECD trend average	* 27	* 30	* 25	* 30

Base: All participating pupils in the countries included.

Gaps were calculated as girls' scores − boys' scores. A positive number indicates the average score for girls is above the average score for boys.

The length of each bar represents the gap before rounding but the figure reported is the gap after rounding.

Asterisks (*) indicate that girls' average scores are significantly different from boys' average scores within individual PISA cycles.

Two countries with the same or similar gap may have different outcomes from significance testing due to the different sample sizes and rounding.

PISA sampling standards were not all met in PISA 2022.

OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

The 2025 gender gap in reading in England (11 points) was significantly narrower than the gap in 2015 (23 points). This reflects a trend of the gender gap in England narrowing over this period. The reverse was the case for the OECD trend average with the gap in reading scores significantly widening between 2015 (27 points) and 2025 (30 points).

By contrast, in each of the comparator countries, stable trends were observed between 2015 and 2025 with the gaps recorded not significantly different. The only significant changes in the gender gaps in the comparator countries were observed in Australia (the gender gap in reading significantly widening from 22 points in 2022 to 31 points in 2025) and Canada (the gender gap significantly narrowing from 29 points in 2018 to 22 points in 2025.

Table 5.4 places England's gender gap in reading in the context of all higher-performing countries in PISA 2025 (where pupils achieved an average reading score above 440)[42]. In each country and on average across the OECD countries, the average reading score for girls was significantly above the score for boys.

[42] Gaps were calculated as girls' scores − boys' scores. A positive number indicates the average score for girls in above the average score for boys.

Table 5.4 Gender gaps in reading performance in higher-performing countries

Gender gaps in reading performance	Country and gender gap in the average score in reading between girls and boys
Countries where the average score in reading for girls was significantly above that for boys	Slovenia (+52), Croatia (+47), Finland (+46), Lithuania (+44), Sweden (+41), Taiwan (+39), Norway (+39), Slovak Republic (+37), Poland (+37), Netherlands (+35), Portugal (+33), Belgium (+33), New Zealand (+33), France (+32), Australia (+31), Czech Republic (+31), Switzerland (+31), Denmark (+31), **OECD average (+30)**, Luxembourg (+30), South Korea (+28), Italy (+28), Singapore (+26), Spain (+26), Austria (+26), Germany (+25), Estonia (+25), United States (+24), Macao (+22), Canada (+22), Türkiye (+22), Hungary (+20), Republic of Ireland (+19), Japan (+14), Hong Kong (+12), **England (+11),** and B-S-J-Z (China) (+7)

Base: All participating countries with average scores over 440 in reading in PISA 2025.
Gaps were calculated as girls' scores − boys' scores. A positive number indicates the average score for girls is above the average score for boys.

Source: OECD PISA database for 2025

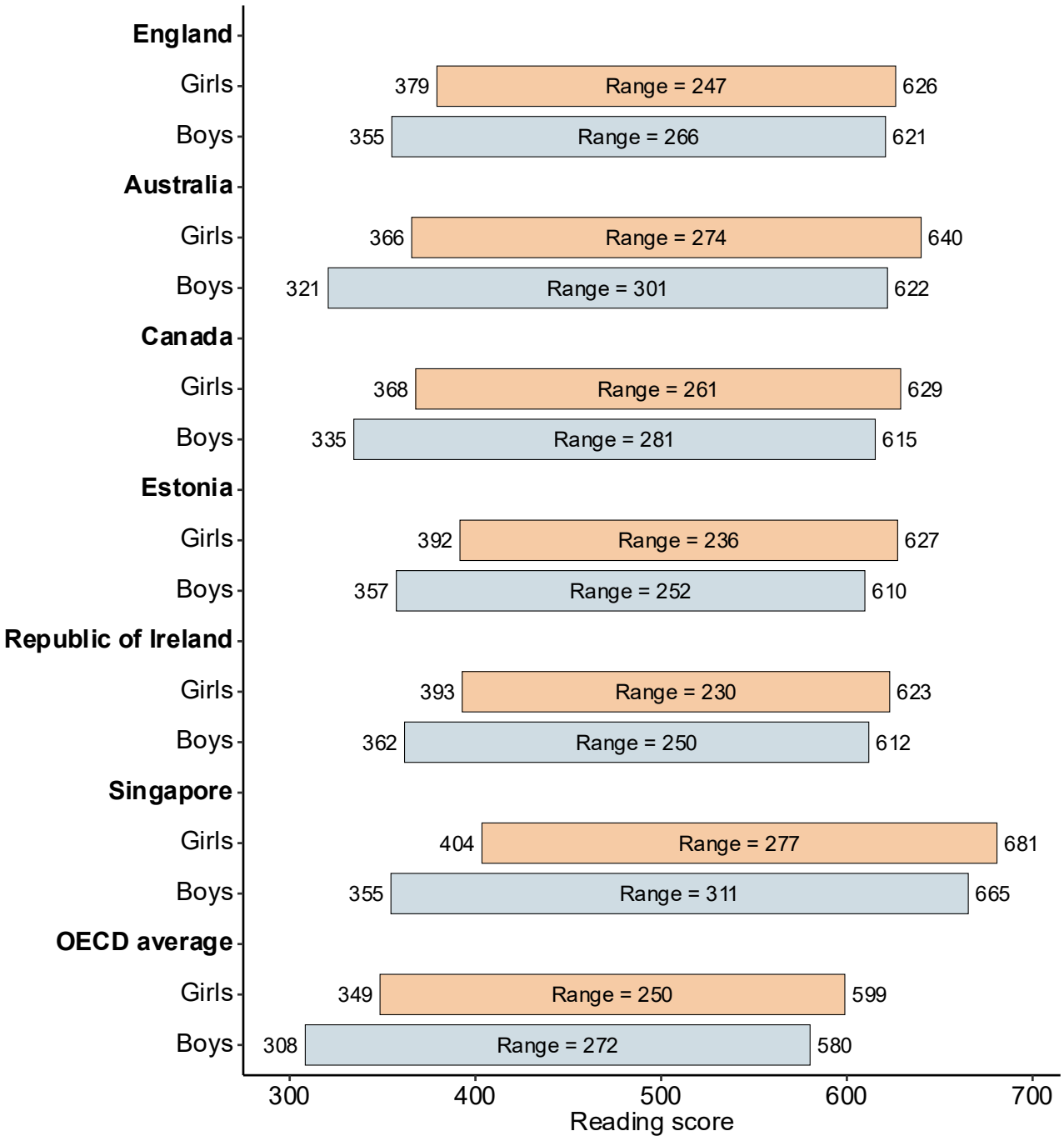
5.4.5 How did girls and boys in England perform at the 10th and 90th percentiles in reading?

This section compares the performance of the highest− and lowest−achieving girls and boys using the 10th (lowest) and 90th (highest) percentile scores for reading and provides the difference (the interdecile range, shortened to range) between these two scores.

Figure 5.11 shows the average scores at the 10th and 90th percentiles and interdecile ranges for pupils in England, its comparator countries and the OECD average while Table 5.5 shows the significance of differences between girls' and boys' average scores and gender gaps.

In England, the average reading score at the 10th percentile for girls in PISA 2025 (379) was significantly above the corresponding score for boys (355). This pattern was also found in each of the comparator countries and on average across OECD countries. However, the average score at the 90th percentile for girls (626) was not significantly different from the corresponding score for boys (621). By contrast, girls significantly outperformed boys in each of the comparator countries and on average across OECD countries at the 90th percentile. The gender gap in England was therefore mostly driven by the weaker performance of boys at the 10th percentile.

Figure 5.11 Performance of girls and boys at the 10th and 90th percentiles in reading in England, comparator countries and the OECD average



Country	Group	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
England	Girls	379	626	247
England	Boys	355	621	266
Australia	Girls	366	640	274
Australia	Boys	321	622	301
Canada	Girls	368	629	261
Canada	Boys	335	615	281
Estonia	Girls	392	627	236
Estonia	Boys	357	610	252
Republic of Ireland	Girls	393	623	230
Republic of Ireland	Boys	362	612	250
Singapore	Girls	404	681	277
Singapore	Boys	355	665	311
OECD average	Girls	349	599	250
OECD average	Boys	308	580	272

Base: All participating pupils in the countries included.
Interdecile ranges were calculated as 90th percentile − 10th percentile.
Ranges may appear inconsistent due to rounding.

Source: OECD PISA database for 2025

The range of scores in England for girls (247) was significantly narrower than the range for boys (266) by −19 points. In each of the comparator countries, the range for girls was also significantly narrower than the range for boys, as was the case for the OECD average range.

Table 5.5 Gender gap at the 10th and 90th percentiles in reading in England, comparator countries and the OECD average

Country	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
England	* 24	5	* –19
Australia	* 45	* 18	* –27
Canada	* 33	* 14	* –20
Estonia	* 34	* 18	* –17
Republic of Ireland	* 31	* 11	* –20
Singapore	* 49	* 15	* –34
OECD average	* 40	* 19	* –22

Base: All participating pupils in the countries included.
Interdecile ranges were calculated as 90th percentile – 10th percentile.
Gaps were calculated as girls' scores – boys' scores and range of girls' scores – range of boys' scores.
Asterisks (*) indicate a significant gender gap (significant difference between girls' and boys' average score and significant difference in ranges of scores).
Two countries with the same or similar score or gap may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

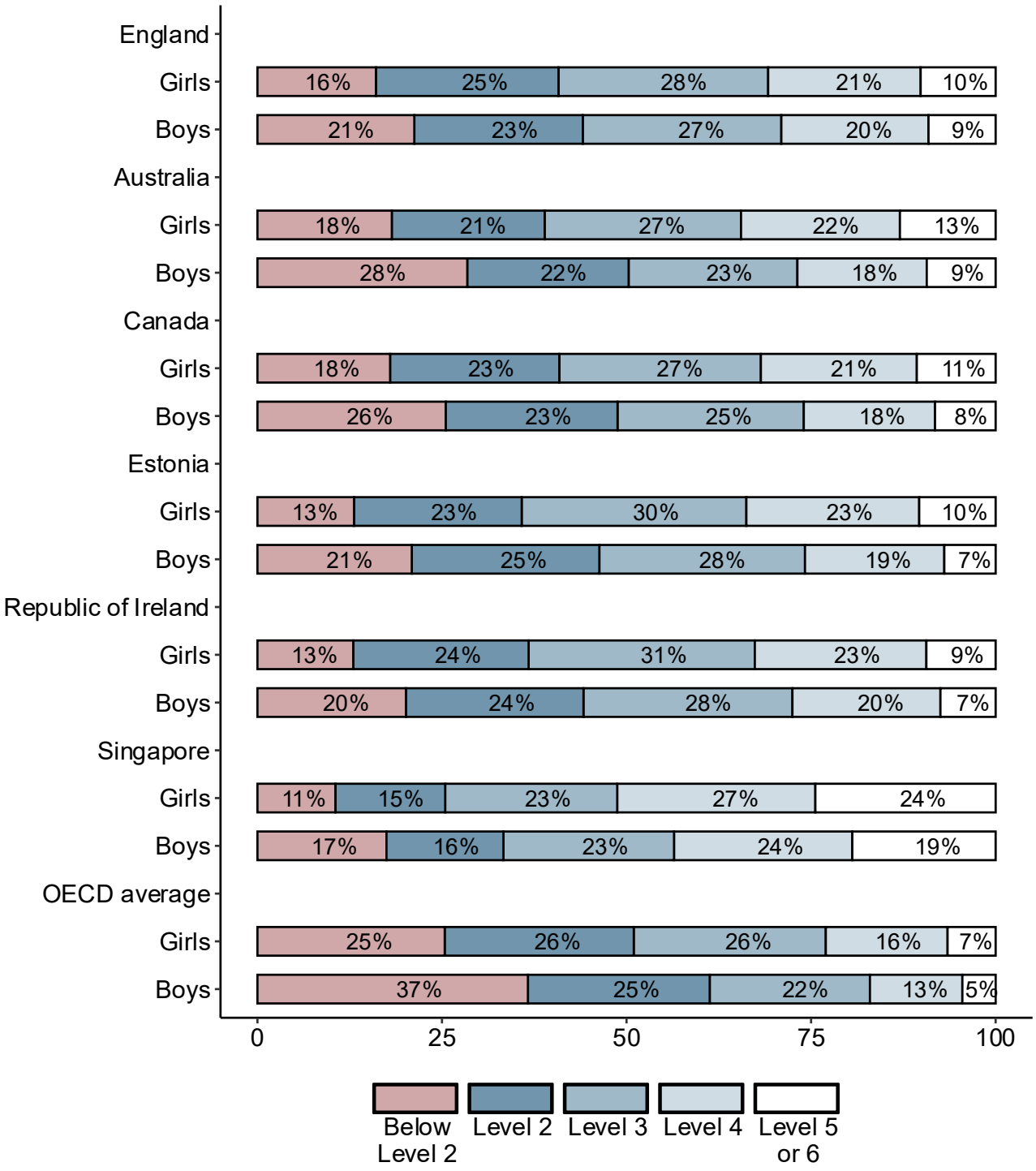
5.4.6 To what extent did girls and boys in England reach the highest and lowest PISA proficiency levels in reading?

This section compares girls' and boys' performance in terms of the percentages attaining each of the PISA proficiency levels for reading (levels range between 1 and 6). In this section the proportion of higher-performing girls and boys (those attaining Level 5 or 6) and lower-performing girls and boys (those attaining below Level 2) are compared.

Figure 5.12 shows the percentage of girls and boys achieving each science proficiency level in England, its comparator countries and the OECD average while Table 5.6 shows the significance of differences between girls' and boys' achievement at these levels.

In England, the percentage of girls performing at Levels 5 or 6 in reading (10%) was not significantly different from the percentage of boys (9%) in 2025. However, the percentage of girls performing below Level 2 (16%) was significantly smaller than the percentage of boys (21%).

Figure 5.12 Percentage of girls and boys performing at each reading proficiency level in England, comparator countries and the OECD average



Country	Group	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	Girls	16%	25%	28%	21%	10%
England	Boys	21%	23%	27%	20%	9%
Australia	Girls	18%	21%	27%	22%	13%
Australia	Boys	28%	22%	23%	18%	9%
Canada	Girls	18%	23%	27%	21%	11%
Canada	Boys	26%	23%	25%	18%	8%
Estonia	Girls	13%	23%	30%	23%	10%
Estonia	Boys	21%	25%	28%	19%	7%
Republic of Ireland	Girls	13%	24%	31%	23%	9%
Republic of Ireland	Boys	20%	24%	28%	20%	7%
Singapore	Girls	11%	15%	23%	27%	24%
Singapore	Boys	17%	16%	23%	24%	19%
OECD average	Girls	25%	26%	26%	16%	7%
OECD average	Boys	37%	25%	22%	13%	5%

Base: All participating pupils in the countries included.
Individual percentages may not total 100% due to rounding.

Source: OECD PISA database for 2025

By contrast to England, the percentage of girls performing at Levels 5 or 6 was significantly larger than the percentage of boys in each of the comparator countries and as shown in the OECD average. However, as in England, the percentage of girls performing below Level 2 was significantly smaller than the percentage of boys in each comparator country and as shown in the OECD average.

Table 5.6 Gender gap in the percentage of pupils at each proficiency level in reading in England, comparator countries and the OECD average

Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	* −5%	2%	2%	1%	1%
Australia	* −10%	−1%	* 4%	* 4%	* 4%
Canada	* −8%	0%	* 2%	* 3%	* 2%
Estonia	* −8%	−3%	3%	* 5%	* 3%
Republic of Ireland	* −7%	0%	2%	* 3%	* 2%
Singapore	* −7%	−1%	0%	* 3%	* 5%
OECD average	* −11%	* 1%	* 4%	* 4%	* 2%

Base: All participating pupils in the countries included.
Gaps were calculated as percentage of girls − percentage of boys. A negative number indicates the percentage for girls is below the percentage for boys.
Asterisks (*) indicate significant gender gaps.
Two countries with the same or similar percentage may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

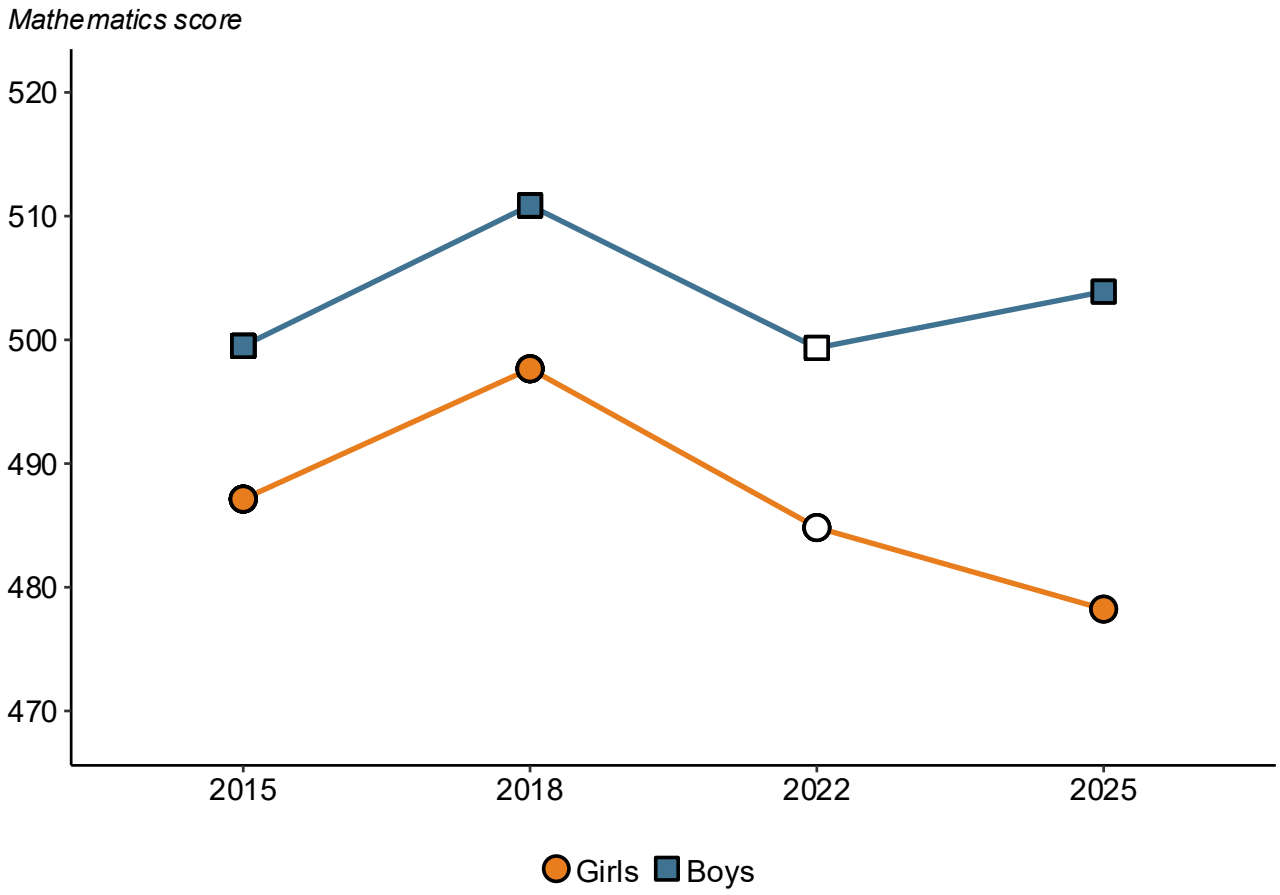
5.5 Mathematics

5.5.1 How did girls and boys in England perform in mathematics?

In England, the average score for girls in 2025 (478) was not significantly different from the corresponding scores in 2022 (485) and 2015 (487). However, it was significantly below the average score in 2018 (498).

The average score for boys in 2025 (504) was not significantly different from the corresponding scores for each of the previous 3 cycles (see Figure 5.13).

Figure 5.13 Trend in girls' and boys' mathematics performance in England



Gender	2015	2018	2022	2025
Girls	487	* 498	485	478
Boys	500	511	499	504

Base: All participating pupils in England.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure. OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

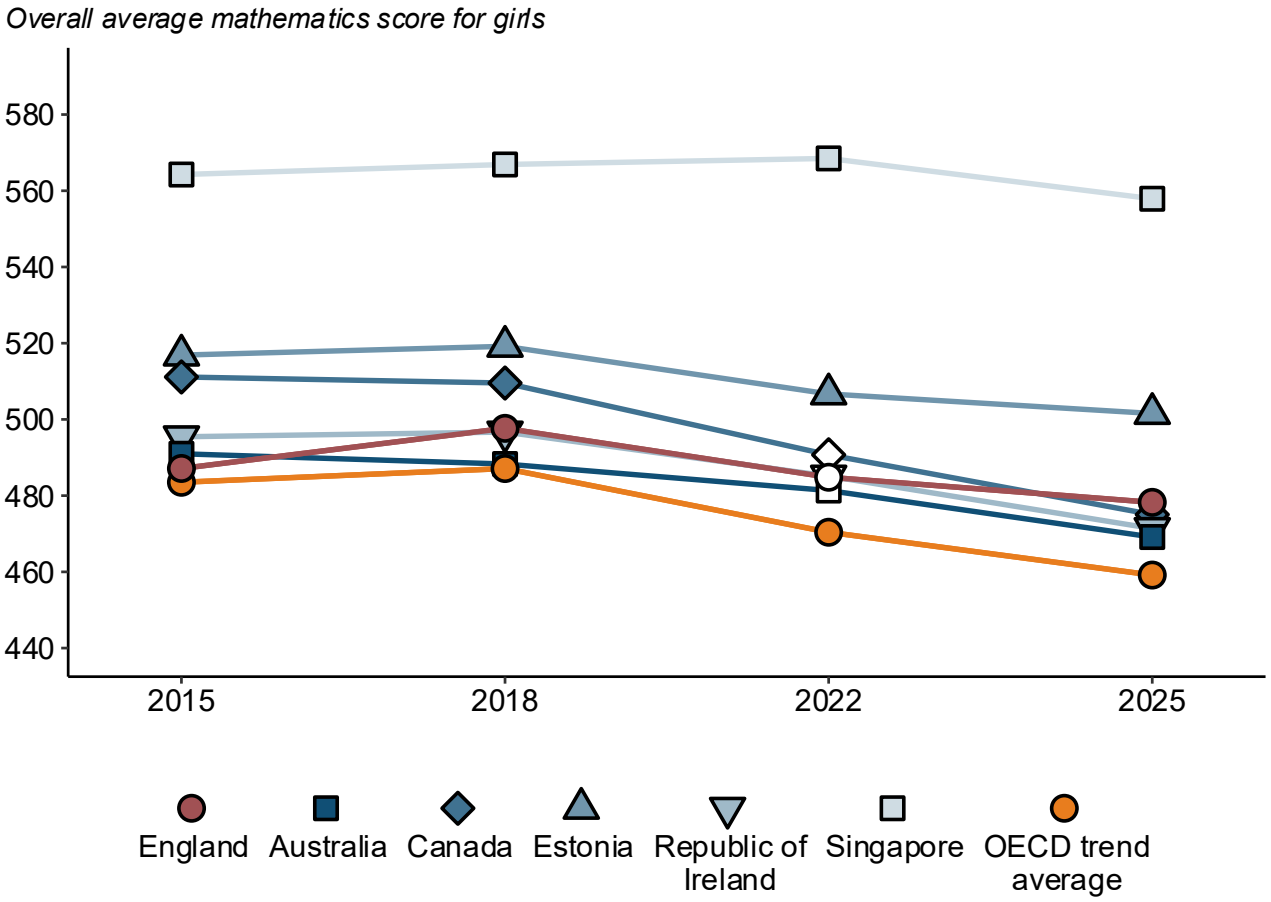
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

5.5.2 What does PISA tell us about girls' performance in mathematics?

In England, the longer-term trend in the average mathematics score for girls was stable between 2015 and 2025 with the respective scores not significantly different from one another (487 and 478 respectively). The same pattern was observed in Singapore. By contrast, the average score for girls in 2025 was significantly below the average score for 2015 in each of the remaining comparator countries and the OECD trend average, signalling significant downward trends in each case.

The average scores in England, each comparator country and the OECD trend average in 2018 were also significantly above the equivalent scores in 2025 (see Figure 5.14). This was also the case when comparing the scores in 2022 with the 2025 scores, except in England and Estonia.

Figure 5.14 Trends in girls' mathematics performance in England, comparator countries and the OECD trend average



Country	2015	2018	2022	2025
England	487	* 498	485	478
Australia	* 491	* 488	* 481	469
Canada	* 511	* 510	* 491	475
Estonia	* 517	* 519	507	502
Republic of Ireland	* 495	* 497	* 485	471
Singapore	564	* 567	* 568	558
OECD trend average	* 484	* 487	* 470	459

Base: All participating pupils in the countries included.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

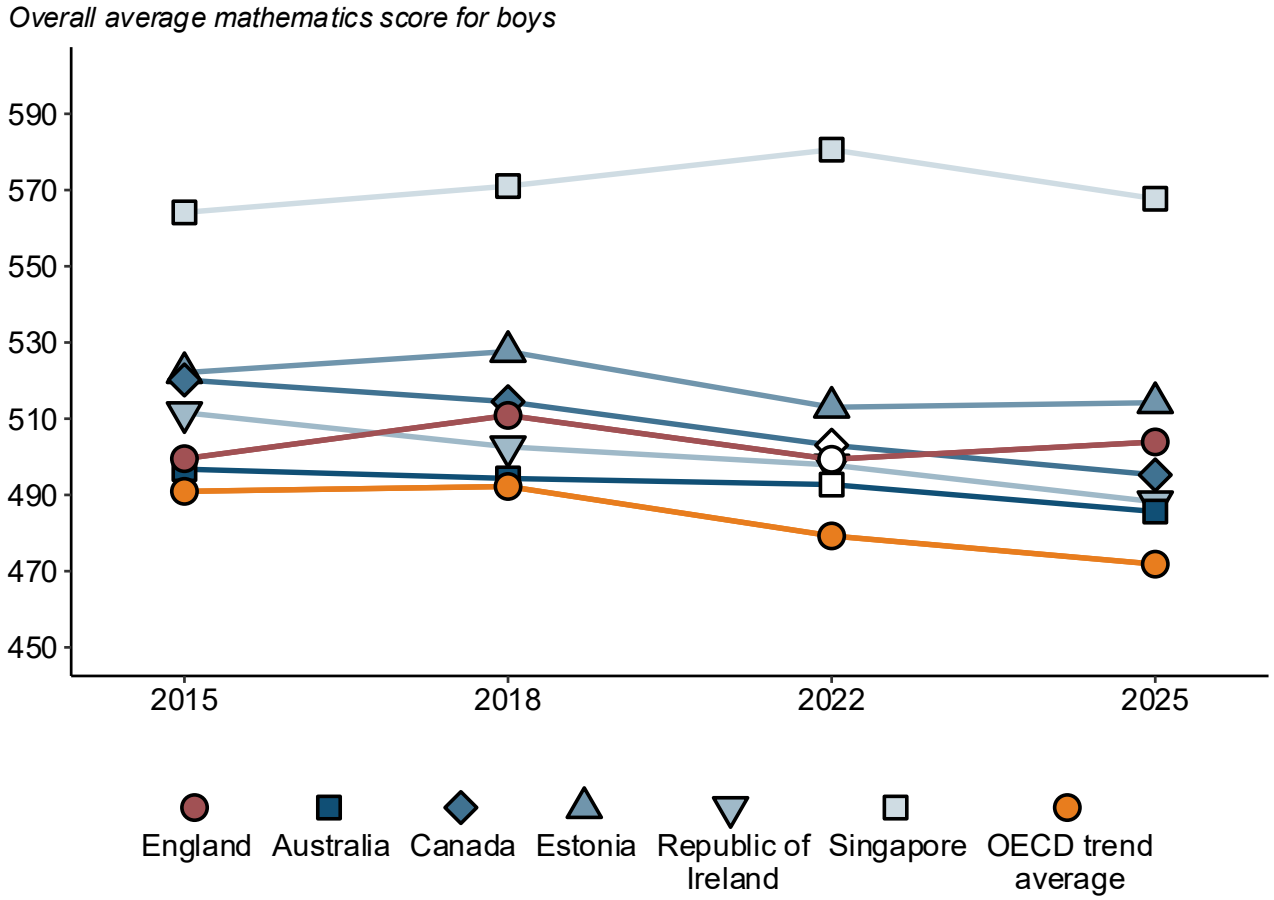
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

5.5.3 What does PISA tell us about boys' performance in mathematics?

In England, the trend in the average mathematics score for boys was stable with the 2015 score (500) not significantly different from the 2025 score (504). Similarly, the scores in England for 2018 (511) and 2022 (499) were also not significantly different from the 2025 score (504). By contrast, in Australia, Canada, the Republic of Ireland and the OECD trend average, boys' scores in 2025 were significantly below the corresponding scores in 2015, reflecting downward trends over this period. In Estonia and Singapore, as in England, stable trends were observed between 2015 and 2025 (see Figure 5.15).

In Australia, Canada, Estonia, the Republic of Ireland and for the OECD trend average, boys' mathematics scores in 2025 were also significantly below the scores in 2018. This was also the case when comparing the scores in 2022 with 2025 in Canada, the Republic of Ireland, Singapore and the OECD trend average.

Figure 5.15 Trends in boys' mathematics performance in England, comparator countries and the OECD trend average



Country	2015	2018	2022	2025
England	500	511	499	504
Australia	* 497	* 494	493	486
Canada	* 520	* 514	* 503	495
Estonia	522	* 528	513	514
Republic of Ireland	* 512	* 503	* 498	488
Singapore	564	571	* 581	568
OECD trend average	* 491	* 492	* 479	472

Base: All participating pupils in the countries included.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
Two countries with the same or similar score may have different outcomes from significance testing due to the different sample sizes and rounding.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

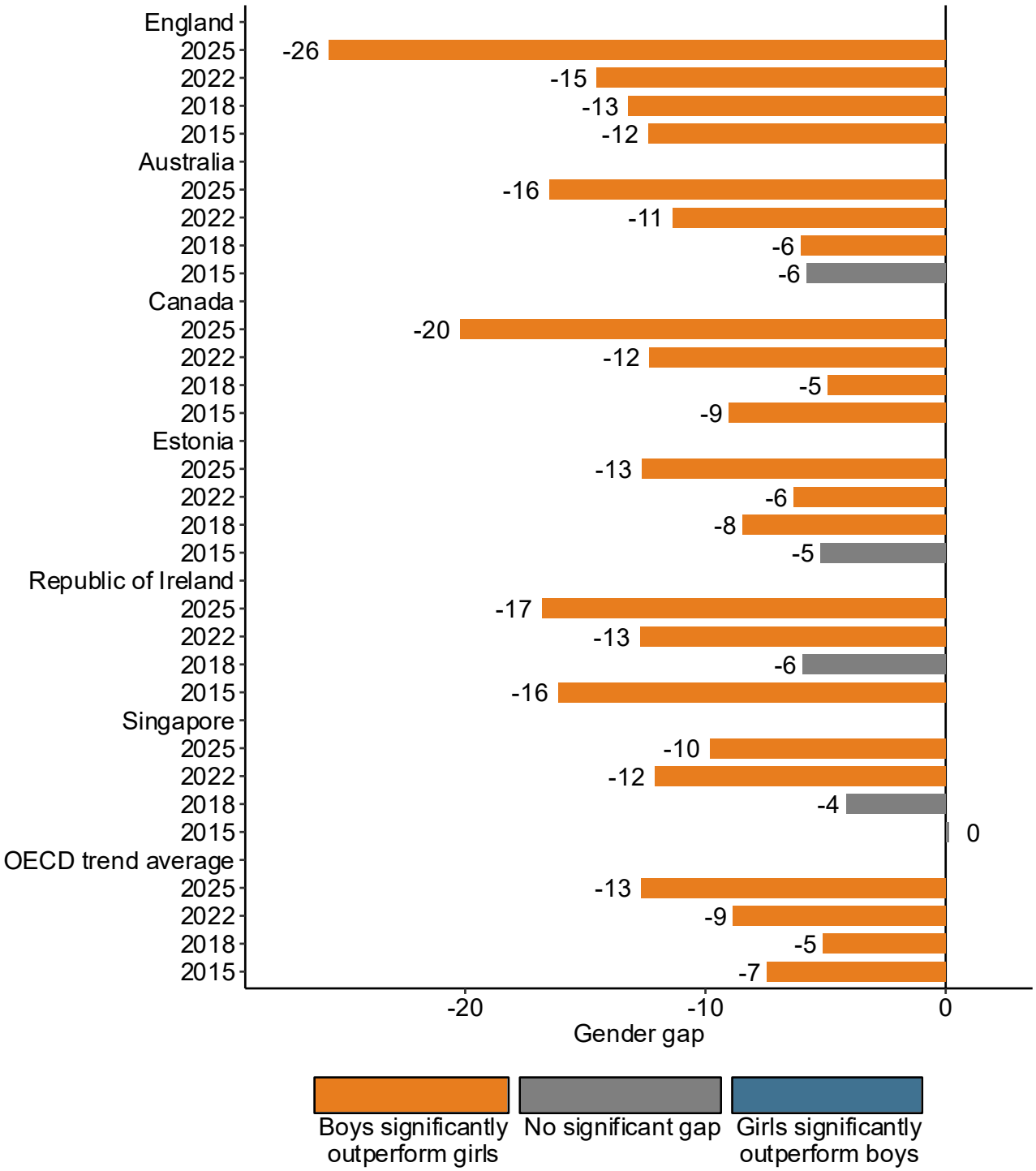
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

5.5.4 How have gender gaps in mathematics performance changed over time?

As shown in Figure 5.16, in 2025, there was a significant 26-point gender gap between the average mathematics score for girls in England (478) and the score for boys (504). This gender gap in favour of boys was also reflected in comparator countries and the OECD trend average in most cycles with gaps only not significant in Australia (2015), Estonia (2015), the Republic of Ireland (2018) and Singapore (2015 and 2018).

England's gender gap in mathematics in 2025 (−26 points) was significantly wider than the OECD trend average in 2025 (−13 points) and significantly wider than the gender gaps in Australia (−16 points), Estonia (−13 points) and Singapore (−10 points). There were no significant differences between the gender gap in mathematics in 2025 in England (−26 points) and the gender gap in either the Republic of Ireland (−17 points) or Canada (−20 points).

Figure 5.16 Gender gaps in mathematics performance in England, comparator countries and the OECD trend average



Country	2015	2018	2022	2025
England	* −12	* −13	* −15	* −26
Australia	−6	* −6	* −11	* −16
Canada	* −9	* −5	* −12	* −20
Estonia	−5	* −8	* −6	* −13
Republic of Ireland	* −16	−6	* −13	* −17
Singapore	0	−4	* −12	* −10
OECD trend average	* −7	* −5	* −9	* −13

Base: All participating pupils in the countries included.
Gaps were calculated as girls' scores − boys' scores. A negative number indicates the average score for girls is below the average score for boys.
The length of each bar represents the gap before rounding but the figure reported is the gap after rounding.
Asterisks (*) indicate that girls' average scores are significantly different from boys' average scores within individual PISA cycles.
Two countries with the same or similar gap may have different outcomes from significance testing due to the different sample sizes and rounding.
PISA sampling standards were not all met in PISA 2022.
OECD trend averages were calculated using PISA 2025 data for OECD countries whose data was included in all cycles.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

In England, the trend between 2015 and 2025 was of a significant widening of the gender gap in mathematics (−12 points compared with −26 points respectively). The same trend was observed in the OECD trend average and in each of the comparator countries except Estonia and the Republic of Ireland.

The gender gaps in mathematics in 2025 were also significantly wider compared with 2018 in England, the OECD trend average and each of the comparator countries except Estonia and Singapore. Compared with 2022 only the OECD trend average and the gap in Canada were significantly wider in 2025.

Table 5.7 places England's gender gap in mathematics the context of all higher-performing countries in PISA 2025 (where pupils achieved an average score above 440)[43]. In 35 countries (including England), the average score for girls was significantly below the score for boys, as was the case for the OECD average. In 5 countries, there was no significant difference between girls' and boys' average scores in mathematics and in no countries was the average score for girls significantly above the score for boys.

[43] Gaps were calculated as girls' scores − boys' scores. A negative number indicates the average score for girls is below the average score for boys.

Table 5.7 Gender gaps in mathematics performance in higher-performing countries

Gender gaps in mathematics performance	Country and gender gap in the average score in mathematics between girls and boys
Countries where there was no significant difference between the average scores in mathematics for girls and boys	Slovenia (+3), Taiwan (−1), Croatia (−1), Sweden (−2), and Finland (−2)
Countries where the average score in mathematics for girls was significantly below that for boys	United Arab Emirates (−4), Norway (−6), Vietnam (−6), Latvia (−7), Lithuania (−9), Netherlands (−9), Singapore (−10), Portugal (−11), South Korea (−11), Germany (−11), Slovak Republic (−11), Czech Republic (−12), New Zealand (−12), Iceland (−12), Poland (−13), France (−13), Estonia (−13), Switzerland (−13), **OECD average (−13)**, Spain (−14), Denmark (−14), Belgium (−16), Japan (−16), Australia (−16), Republic of Ireland (−17), Italy (−17), Hong Kong (−17), Türkiye (−18), Macao (−19), Luxembourg (−19), Hungary (−19), Canada (−20), B-S-J-Z (China) (−21), Austria (−23), United States (−24), and **England (−26)**

Base: All participating countries with average scores over 440 in mathematics in PISA 2025.
Gaps were calculated as girls' scores − boys' scores. A negative number indicates the average score for girls is below the average score for boys.
There were no countries where the average score in mathematics for girls was significantly above that for boys.

Source: OECD PISA database for 2025

5.5.5 How did girls and boys in England perform at the 10th and 90th percentiles in mathematics?

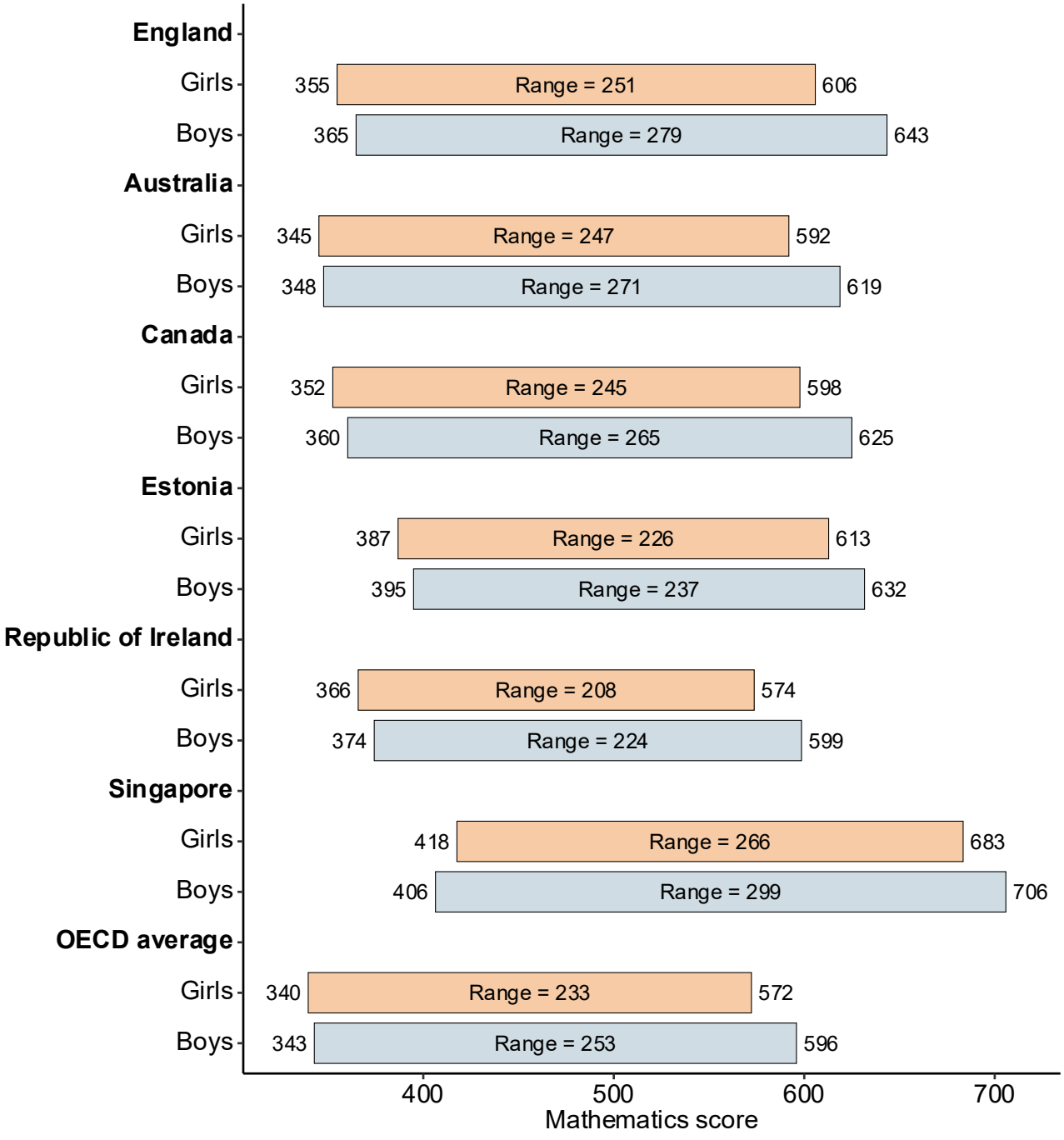
This section compares the performance of the highest− and lowest−achieving girls and boys using the 10th (lowest) and 90th (highest) percentile scores for mathematics and provides the difference (the interdecile range, shortened to range) between these two scores.

Figure 5.17 shows the average scores at the 10th and 90th percentiles and interdecile ranges for pupils in England, its comparator countries and the OECD average while Table 5.8 shows the significance of differences between girls' and boys' average scores and gender gaps.

In England, the average mathematics score at the 10th percentile for girls in PISA 2025 (355) was not significantly from the corresponding score for boys (365). This pattern was

also observed in Australia, Estonia, the Republic of Ireland and Singapore. By contrast, in Canada and on average across OECD countries, boys significantly outperformed girls in mathematics at the 10th percentile. The average score at the 90th percentile for girls in England (606) was significantly below the corresponding score for boys (643), a gap of −38 points after rounding. This pattern of performance was also observed in each of the comparator countries and the OECD average. The gender gap in England was therefore mostly driven by the stronger performance of boys at the 90th percentile.

Figure 5.17 Performance of girls and boys at the 10th and 90th percentiles in mathematics in England, comparator countries and the OECD average



Country	Gender group	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
England	Girls	355	606	251
England	Boys	365	643	279
Australia	Girls	345	592	247
Australia	Boys	348	619	271
Canada	Girls	352	598	245
Canada	Boys	360	625	265
Estonia	Girls	387	613	226
Estonia	Boys	395	632	237
Republic of Ireland	Girls	366	574	208
Republic of Ireland	Boys	374	599	224
Singapore	Girls	418	683	266
Singapore	Boys	406	706	299
OECD average	Girls	340	572	233
OECD average	Boys	343	596	253

Base: All participating pupils in the countries included.
Interdecile ranges were calculated as 90th percentile − 10th percentile.
Interdecile ranges may appear inconsistent due to rounding.

Source: OECD PISA database for 2025

The range of scores for girls in England (251) was significantly narrower than the range for boys (279) by −28 points. This pattern was also observed in each of the comparator countries (apart from Estonia) and in the OECD average range.

Table 5.8 Gender gap at the 10th and 90th percentiles in mathematics in England, comparator countries and the OECD average

Country	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
England	−10	* −38	* −28
Australia	−2	* −27	* −24
Canada	* −8	* −27	* −19
Estonia	−8	* −19	−11
Republic of Ireland	−8	* −25	* −16
Singapore	11	* −22	* −34
OECD average	* −3	* −24	* −20

Base: All participating pupils in the countries included.
Interdecile ranges were calculated as 90th percentile − 10th percentile.
Gaps were calculated as girls' scores − boys' scores and range of girls' scores − range of boys' scores.
Asterisks (*) indicate a significant gender gap (significant difference between girls' and boys' average score and significant difference in ranges of scores).
Two countries with the same or similar gap may have different outcomes from significance testing due to the different sample sizes and rounding.

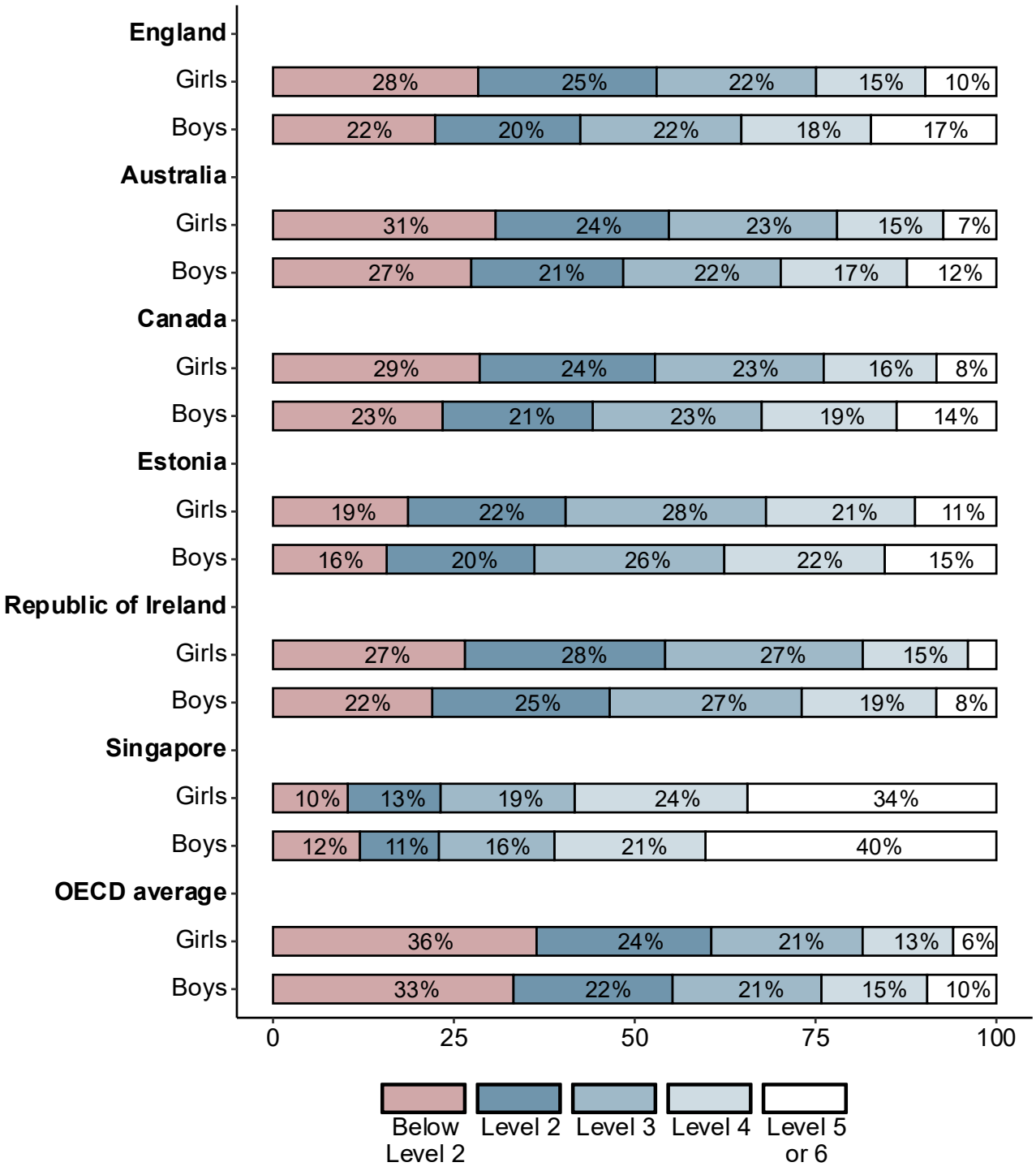
Source: OECD PISA database for 2025

5.5.6 To what extent did girls and boys in England reach the highest and lowest PISA proficiency levels in reading compared with the OECD averages and comparator countries?

This section compares girls' and boys' performance in terms of the percentages attaining each of the PISA proficiency levels for mathematics (levels range between 1 and 6). In this section the proportion of higher-performing girls and boys (those attaining Level 5 or 6) and lower-performing girls and boys (those attaining below Level 2) are compared.

In PISA 2025, the percentage of girls in England (10%) performing at Levels 5 or 6 was significantly smaller compared with boys (17%). The corresponding OECD averages show the same pattern of significant difference in mathematics (with 6% of girls and 10% of boys performing at this level respectively). In England, a significantly larger percentage of girls performed below Level 2 compared with boys (28% and 23% respectively). The same pattern of significant difference was found in the corresponding OECD averages (36% and 33% respectively).

Figure 5.18 Percentage of girls and boys performing at each mathematics proficiency level in England, comparator countries and the OECD average



Country	Group	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	Girls	28%	25%	22%	15%	10%
England	Boys	22%	20%	22%	18%	17%
Australia	Girls	31%	24%	23%	15%	7%
Australia	Boys	27%	21%	22%	17%	12%
Canada	Girls	29%	24%	23%	16%	8%
Canada	Boys	23%	21%	23%	19%	14%
Estonia	Girls	19%	22%	28%	21%	11%
Estonia	Boys	16%	20%	26%	22%	15%
Republic of Ireland	Girls	27%	28%	27%	15%	4%
Republic of Ireland	Boys	22%	25%	27%	19%	8%
Singapore	Girls	12%	11%	16%	21%	40%
Singapore	Boys	10%	13%	19%	24%	34%
OECD average	Girls	36%	24%	21%	13%	6%
OECD average	Boys	33%	22%	21%	15%	10%

Base: All participating pupils in the countries included.
Individual percentages may not total 100% due to rounding.
Percentages below 4.5% are not displayed on the chart for visual clarity.

Source: OECD PISA database for 2025

In each comparator country, as in England, the percentage of girls performing at Levels 5 or 6 was significantly below the percentage of boys. Correspondingly, the percentage of girls performing below Level 2 in each comparator country, except Singapore, was significantly above the percentage of boys, as in England and the OECD average. Table 5.9 shows the gender gaps at each proficiency level in England, the comparator countries and the OECD average.

Table 5.9 Gender gap in the percentage of pupils at each proficiency level in mathematics in England, comparator countries and the OECD average

Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	* 6%	* 5%	0%	* –3%	* –8%
Australia	* 3%	* 3%	1%	* –3%	* –5%
Canada	* 5%	* 3%	0%	* –3%	* –6%
Estonia	* 3%	1%	1%	–2%	* –4%
Republic of Ireland	* 5%	* 3%	1%	* –4%	* –4%
Singapore	–2%	2%	* 3%	3%	* –6%
OECD average	* 3%	* 2%	0%	* –2%	* –4%

Base: All participating pupils in the countries included.
Gaps were calculated as percentage of girls − percentage of boys. A negative number indicates the percentage for girls is below the percentage for boys.
Asterisks (*) indicate significant gender gaps.
Two countries with the same or similar percentage may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

6 Equity and Inclusion: Does performance differ by socioeconomic status?

6.1 Chapter Overview

In this chapter we explore differences in pupils' PISA scores in science, reading and mathematics according to socioeconomic status. As described in Chapter 1, the OECD average is the average for all 38 OECD countries participating in 2025. The OECD trend average is the average for the 35 countries that participated in each of the latest 4 PISA cycles (2015, 2018, 2022 and 2025)[44].

6.2 Key Findings

- England's average score on PISA's economic, social and cultural status (ESCS) Index was +0.10 indicating that, on average, pupils' socioeconomic status in England was higher than the average across all OECD countries. In each comparator country, the average score was also above 0: Australia (+0.48), Canada (+0.43), Estonia (+0.14), the Republic of Ireland (+0.33) and Singapore (+0.43).
- There was an 81 score point difference in average science scores between the most disadvantaged group of pupils and the least disadvantaged group of pupils in England in 2025. In reading this difference was 66 score points and in mathematics it was 89 score points. In science and mathematics the ranges of average scores in England were not significantly different from the average ranges across all OECD countries while in reading, the range of scores in England was significantly narrower than the average range of scores across all OECD countries.
- Pupils in England who were eligible for free school meals achieved average scores in science, reading and mathematics significantly below scores for pupils who were not eligible.
- The difference in science performance associated with a one-unit increase in the ESCS index in 2025 was significantly smaller in England (30 score points) than the average across OECD countries (36 score points).
- The difference in reading performance associated with a one-unit increase in the ESCS index in 2025 in England (24 score points) was significantly smaller than the average across OECD countries (32 score points).

[44] The 35 OECD trend countries are those OECD countries in PISA 2025 that have participated in every cycle since PISA 2015, excluding Costa Rica and Spain. See Chapter 1 for further details.

- The difference in mathematics performance associated with a one-unit increase in the ESCS index in 2025 in England (32 score points) was not significantly different from the average across OECD countries (35 score points).
- The percentages of variance in science performance in England that could be explained by socioeconomic status was 9%, while in reading it was 6% and mathematics 10%. On average across OECD countries 12% of the variance in both science and mathematics performance, and 9% of the variance in reading performance could be explained by socioeconomic status.
- In England 14% of pupils were academically resilient[45] in science, 16% were academically resilient in reading and 13% were academically resilient in mathematics. On average across OECD countries 12% of pupils were academically resilient in science and mathematics while 13% were academically resilient in reading.
- In England, the average science score for pupils with a first−generation immigrant background was significantly below the score for non−immigrant pupils and pupils with a second−generation immigrant background. This was also the case for reading and mathematics.
- The average science score for pupils in England with a second-generation immigration background was not significantly different from the average score for non−immigrant pupils. By contrast, the average reading and mathematics scores for pupils with a second−generation immigrant background were significantly above the average score for non−immigrant pupils.

6.3 Measures of socioeconomic status in England

This section reports on how science, reading and mathematics scores vary by pupils' socioeconomic background. This is achieved by looking at performance in PISA by free school meals (FSM) status and by using PISA's economic, social and cultural status (ESCS) index.

6.3.1 The ESCS Index

The ESCS Index is based on pupils' responses to questions about their parents' background, education, and possessions in their homes.

The index is standardised across OECD countries with an average of 0 (representing the average socioeconomic status of a 15-year-old pupil across all participating OECD countries) and a standard deviation of 1. This means almost all pupils will fall between −3

[45] A pupil is classified as being academically resilient if they are relatively disadvantaged in terms of their socioeconomic background (they are in the lowest quartile of the ESCS Index) but perform in the top quarter of pupils in that country.

and +3 on the index. If a country's ESCS index is above 0, on average, pupils' socioeconomic status is above the average across all OECD countries. If a country's ESCS index is below 0, on average, pupils' socioeconomic status is below the average across all OECD countries. The methodology for calculating the Economic, Social, and Cultural Status index (ESCS) was revised for the 2025 cycle. Although the index retains the same name and continues to measure socioeconomic background, a different methodology was used to calculate the index. At the time of writing, the exact details of these methodology changes were not available, and it was therefore not possible to make statistical comparisons between the 2025 cycle and previous cycles within this report.

England's average score on the ESCS Index was +0.10 indicating that, on average, pupils' socioeconomic status in England was higher than the average across all OECD countries. In each comparator country, the average score was also above 0: Australia (+0.48), Canada (+0.43), Estonia (+0.14), the Republic of Ireland (+0.33) and Singapore (+0.43).

Relative to the OECD average, there was a similar percentage of pupils in England with missing or otherwise unavailable ESCS estimates (10% compared with 11% respectively)[46]. This percentage of missing data should be considered when assessing the national representativeness of England's ESCS data[47].

6.3.2 Free school meals

In England, eligibility for free school meals is used as a proxy measure for socioeconomic disadvantage. In England, 24% of pupils were recorded in the National Pupil Database (NPD) as being eligible for FSM in 2025 or the previous 6 years. Using this criterion the average scores reported in this chapter are based on this data.

6.4 Analysis of the relationship between socioeconomic status and performance

There are 5 different ways to think about the relationship between socioeconomic status and attainment in PISA. Each of these is applied in the following sections for science (Section 6.5), reading (Section 6.6) and mathematics (Section 6.7).

1. **Measuring the difference in attainment, on average, between pupils with high socioeconomic status and those with low socioeconomic status using FSM data**

[46] For the comparator countries, the percentages of pupils with missing or otherwise unavailable ESCS estimates were Australia (5%), Canada (10%), Estonia (2%), the Republic of Ireland (3%) and Singapore (2%).
[47] ESCS is based on 3 questionnaire variables related to family background (parents' highest level of education, parents' highest occupational status and home possessions). If two or more variables are missing, a pupil is assigned a missing value for ESCS.

By dividing pupils into groups of those who were eligible or not for FSM in 2025 or at any point in the past 6 years, comparisons can be made between their average scores.

2. **Measuring the difference in attainment, on average, between pupils with high socioeconomic status and those with low socioeconomic status using the ESCS Index**

   By dividing pupils into 4 equal groups (quartiles) according to their ESCS score (see Chapter 1 Section 1.4.4 for a detailed explanation of this), a comparison can be made between their average scores. This includes calculating the interquartile range (shortened to range) of average scores between pupils who were most disadvantaged (Quartile 1) and those who were least disadvantaged (Quartile 4).

3. **Measuring the strength of the relationship between ESCS and PISA scores (the gradient of the slope)**

   The OECD plotted individual pupils' subject scores against their ESCS scores and calculated the average difference in performance associated with each unit on the ESCS index. This is known as the gradient or steepness of the slope where the steeper the slope, the larger the impact that disadvantage had on performance. Low values indicate that socioeconomic status had less impact on pupil attainment; high values indicate that socioeconomic background had more impact on pupil attainment. A slope of 30 would mean a one-unit increase in the ESCS index (which is quite a large change) is associated with 30 more points scored.

4. **Measuring the variation between pupils with similar socioeconomic status**

   As many factors influence an individual pupil's score other than their socioeconomic status, a range of PISA scores at each point on the index would be expected. The OECD plotted pupils' average subject scores against each point on the ESCS index to calculate the average percentage of score variation explained by socioeconomic status. This is referred to as the strength of the socioeconomic effect. A strong effect will show less variability in the attainment of pupils with the same socioeconomic status, which implies that socioeconomic status is a dominant factor in determining outcomes. A weak effect will show more variability in the attainment of pupils with the same socioeconomic status, which implies that socioeconomic status is not a dominant factor in determining outcomes.

5. **Calculating the percentage of pupils who were 'academically resilient'**

   Academically resilient pupils are those who succeed academically despite their comparatively low socioeconomic status. A pupil is classed as resilient in PISA if they were in the bottom quartile of the ESCS index in their country (Quartile 1) but performed in the top quartile of pupils in that country (Quartile 4).

6.5 What is the relationship between socioeconomic status and science performance in PISA in England, the comparator countries and the OECD average?

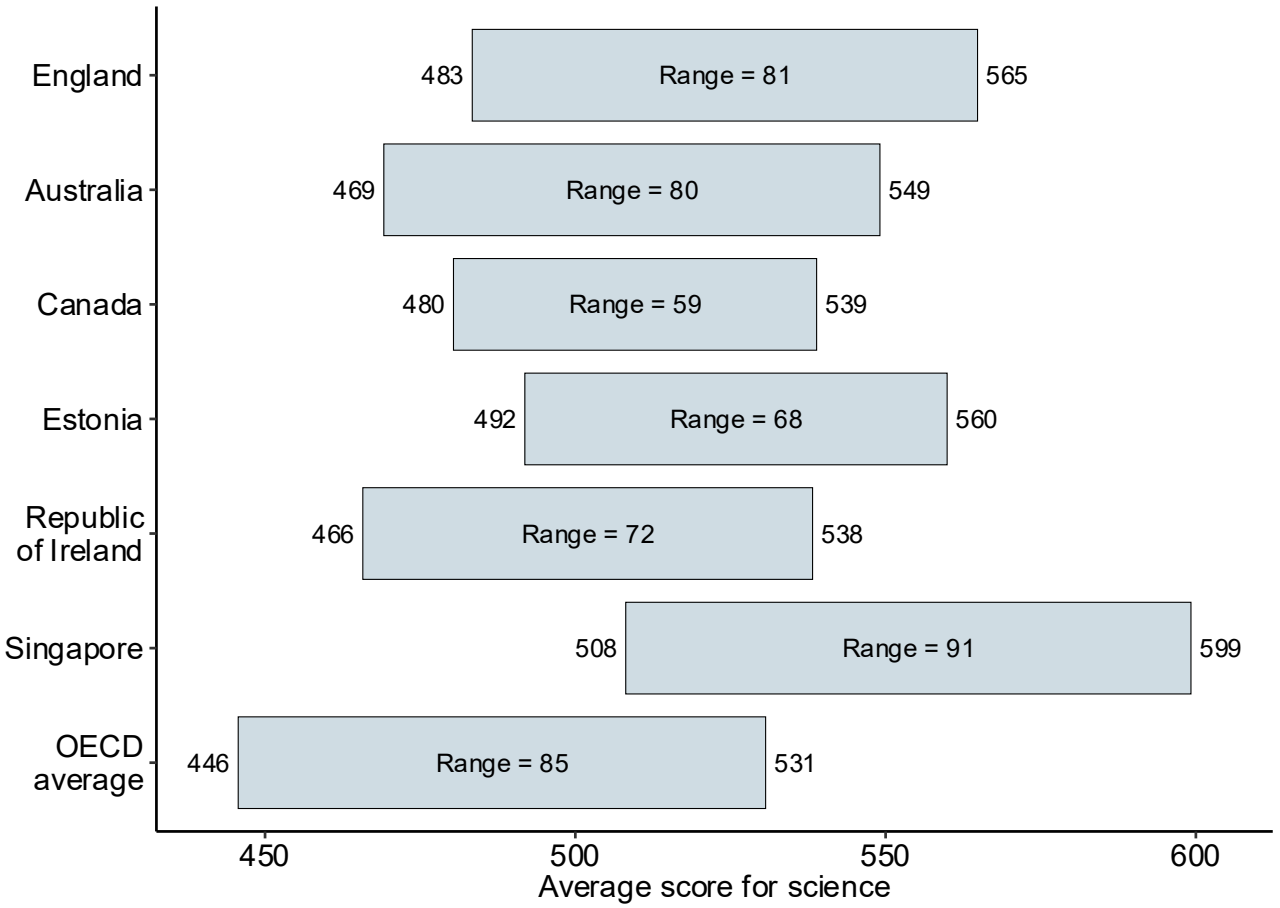
6.5.1 Science performance according to FSM eligibility

In England, pupils who were eligible for FSM in 2025 achieved an average science score of 474, significantly below the score for pupils who were not eligible for FSM (522).

6.5.2 Range in science performance between ESCS Quartile 1 and Quartile 4 in England, comparator countries and the OECD average

Figure 6.1 shows that the interquartile range (shortened to range) of science scores in England (81 points) between the most disadvantaged quartile (Quartile 1: 483) and least disadvantaged quartile of pupils (Quartile 4: 565) was not significantly different from the OECD average range (85 points) and the range in each comparator country except Canada. In Canada, the range was significantly narrower compared with England (59 compared with 81 points) and was driven by pupils in Quartile 4 in Canada (539) scoring significantly below pupils in Quartile 4 in England (565).

Figure 6.1 Range in science performance between ESCS Quartiles 1 and 4 in England, comparator countries and the OECD average



Country	ESCS Quartile 1	ESCS Quartile 4	ESCS interquartile range
England	483	565	81
Australia	* 469	* 549	80
Canada	480	* 539	* 59
Estonia	492	560	68
Republic of Ireland	* 466	* 538	72
Singapore	* 508	* 599	91
OECD average	* 446	* 531	85

Base: All participating pupils with ESCS data in the countries included.
Asterisks (*) indicate average scores and ranges that are significantly different from those for England's pupils.
The range was calculated as the average score for Quartile 4 – the average score for Quartile 1.
Ranges may appear inconsistent with quartile scores due to rounding.

Source: OECD PISA database for 2025

6.5.3 The strength of the relationship between ESCS and PISA science scores (gradient of the slope)

Socioeconomic status had a significantly smaller effect on science scores in England compared with the OECD average. In England there was a 30-point difference in science performance associated with a one-unit increase in ESCS, significantly below the OECD average (36 points). Australia and Singapore also recorded significantly stronger relationships between socioeconomic status and science scores (with 37- and 45-point differences associated with a one-unit increase in ESCS). The strength of the relationship between ESCS and science scores in England was not significantly different from that observed in Canada (29 points), Estonia (34 points) and the Republic of Ireland (32 points).

6.5.4 Variation in science scores between pupils with similar backgrounds

The percentage of the variation in science performance explained by socioeconomic status in England was 9%, compared with 12% on average across the OECD countries. In Estonia and the Republic of Ireland 10% of the variance in science performance was explained by the ESCS index while in Australia it was 9%, in Canada, 6% and in Singapore, 12%.

6.5.5 Percentage of pupils who were 'academically resilient' in science

In England, 14% of pupils were academically resilient in the context of science performance, not significantly different from the OECD average (12%). The academic resilience rates in Australia (13%), Canada (15%), Estonia (12%) and the Republic of Ireland (14%) were also not significantly different from the rate in England (14%), while in Singapore, the percentage of pupils who were academically resilient (11%) was significantly smaller than the rate in England.

6.5.6 To what extent did pupils in England reach the highest and lowest PISA proficiency levels in science by ESCS quartile?

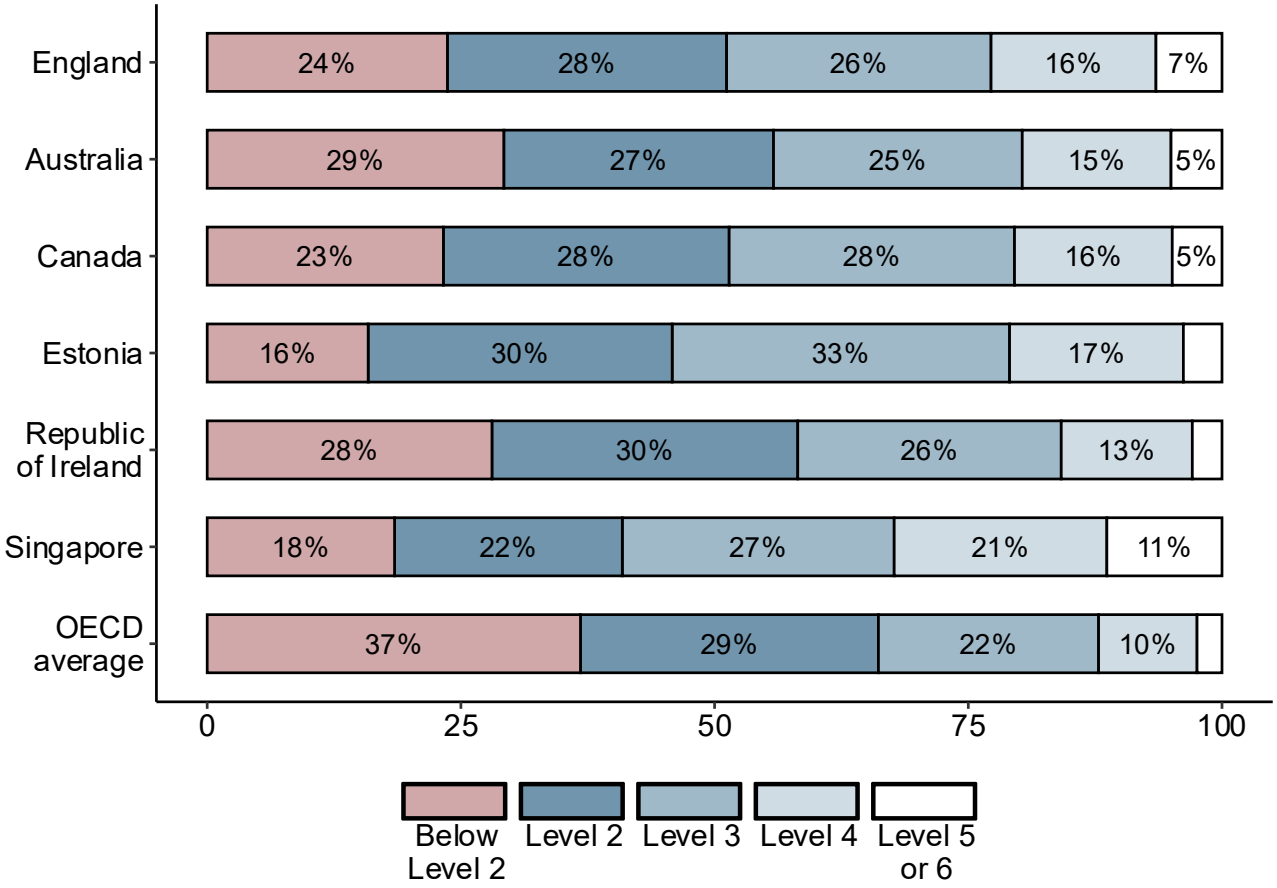
Quartile 1 (most disadvantaged pupils)

Figure 6.2 shows that 7% of pupils in Quartile 1 in England achieved Levels 5 or 6 in 2025. This percentage was significantly larger than the corresponding percentages of pupils in Estonia (4%), the Republic of Ireland (3%) and the OECD average (2%). By contrast, it was significantly smaller than the corresponding percentage of pupils in Singapore (11%) and not significantly different from the percentages in Australia or Canada (both 5%).

In Quartile 1, the percentage of pupils in England performing below the baseline proficiency level (below Level 2) in science (24%) was significantly smaller than the

corresponding percentages in Australia (29%), the Republic of Ireland (28%) and the OECD average (37%). By contrast, it was significantly larger than the corresponding percentages in Estonia (16%) and Singapore (18%), while it was not significantly different from the percentage in Canada (23%).

Figure 6.2 Percentage of pupils performing at each science proficiency level in ESCS Quartile 1 − England, comparator countries and OECD average



Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	24%	28%	26%	16%	7%
Australia	* 29%	27%	25%	15%	5%
Canada	23%	28%	28%	16%	5%
Estonia	* 16%	30%	* 33%	17%	* 4%
Republic of Ireland	* 28%	30%	26%	13%	* 3%
Singapore	* 18%	* 22%	27%	* 21%	* 11%
OECD average	* 37%	29%	* 22%	* 10%	* 2%

Base: All participating pupils with ESCS data in the countries included.
Asterisks (*) indicate significant differences between percentages of pupils in comparator countries or the OECD average compared with the percentage of pupils in England.
Individual percentages may not total 100% due to rounding.
Percentages below 4.5% are not displayed on the chart for visual clarity.

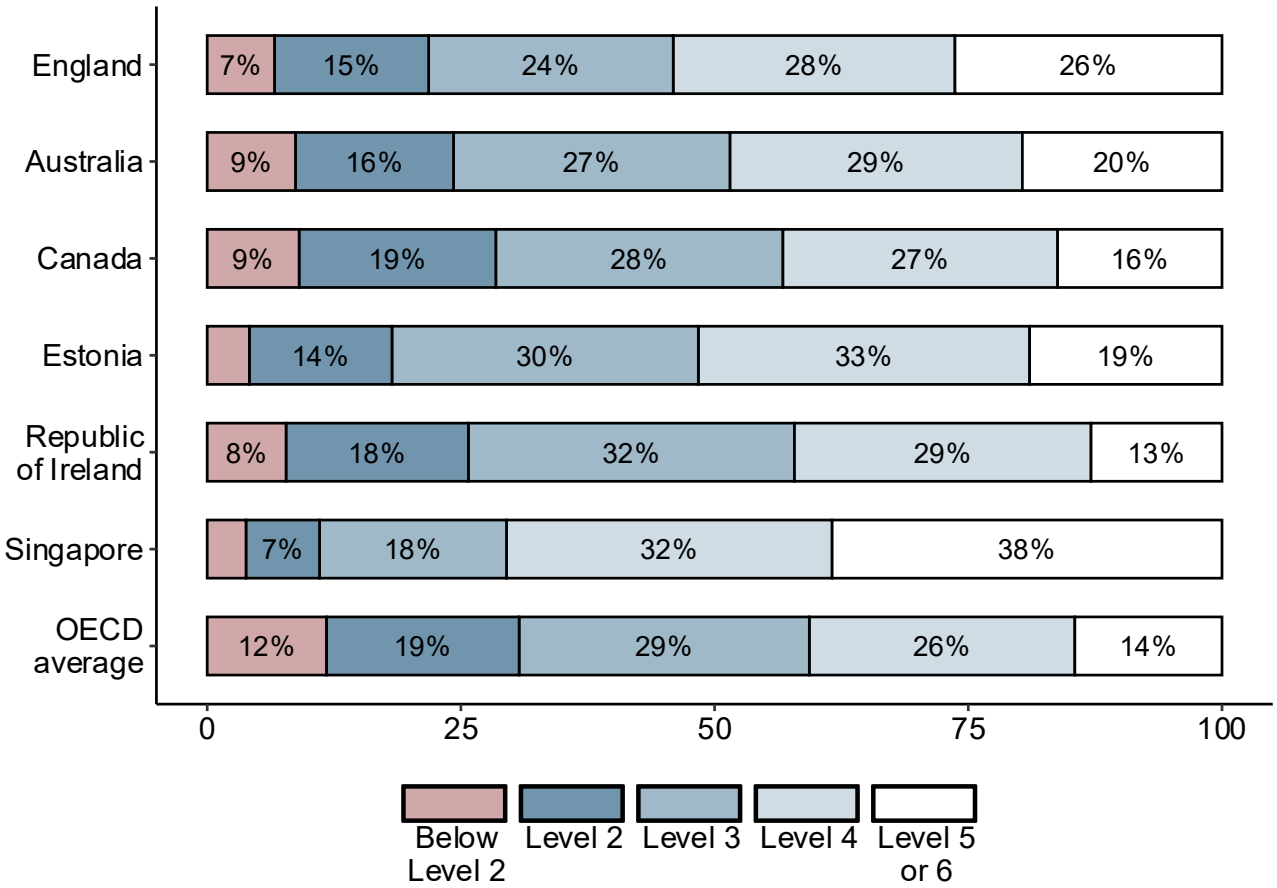
Source: OECD PISA database for 2025

Quartile 4 (least disadvantaged pupils)

In Quartile 4, the percentage of pupils in England in 2025 performing at the highest proficiency levels (Levels 5 or 6) in science (26%) was significantly larger than the corresponding percentages of pupils in Australia (20%), Canada (16%), Estonia (19%) and the Republic of Ireland (13%) as well as the OECD average (14%). By contrast, it was significantly below the corresponding percentage of pupils in Singapore (38%) (see Figure 6.3).

In Quartile 4, the percentage of pupils in England performing below the baseline proficiency level (below Level 2) in science (7%) was significantly smaller than the corresponding percentage in Canada (9%) and the OECD average (12%). By contrast, it was significantly larger than the corresponding percentages in Estonia (4%) and Singapore (4%) and not significantly different from the percentages in Australia (9%) and the Republic of Ireland (8%).

Figure 6.3 Percentage of pupils performing at each science proficiency level in ESCS Quartile 4 in England, comparator countries and OECD average



Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or Level 6
England	7%	15%	24%	28%	26%
Australia	9%	16%	27%	29%	* 20%
Canada	* 9%	* 19%	* 28%	27%	* 16%
Estonia	* 4%	14%	* 30%	33%	* 19%
Republic of Ireland	8%	18%	* 32%	29%	* 13%
Singapore	* 4%	* 7%	* 18%	32%	* 38%
OECD average	* 12%	* 19%	* 29%	26%	* 14%

Base: All participating pupils with ESCS data in the countries included.
Asterisks (*) indicate significant differences between the percentage of pupils in comparator countries or the OECD average compared with the percentage of pupils in England.
Individual percentages may not total 100% due to rounding.
Percentages below 4.5% are not displayed on the chart for visual clarity.

Source: OECD PISA database for 2025

6.6 What is the relationship between socioeconomic status and reading performance in PISA in England, the comparator countries and OECD average?

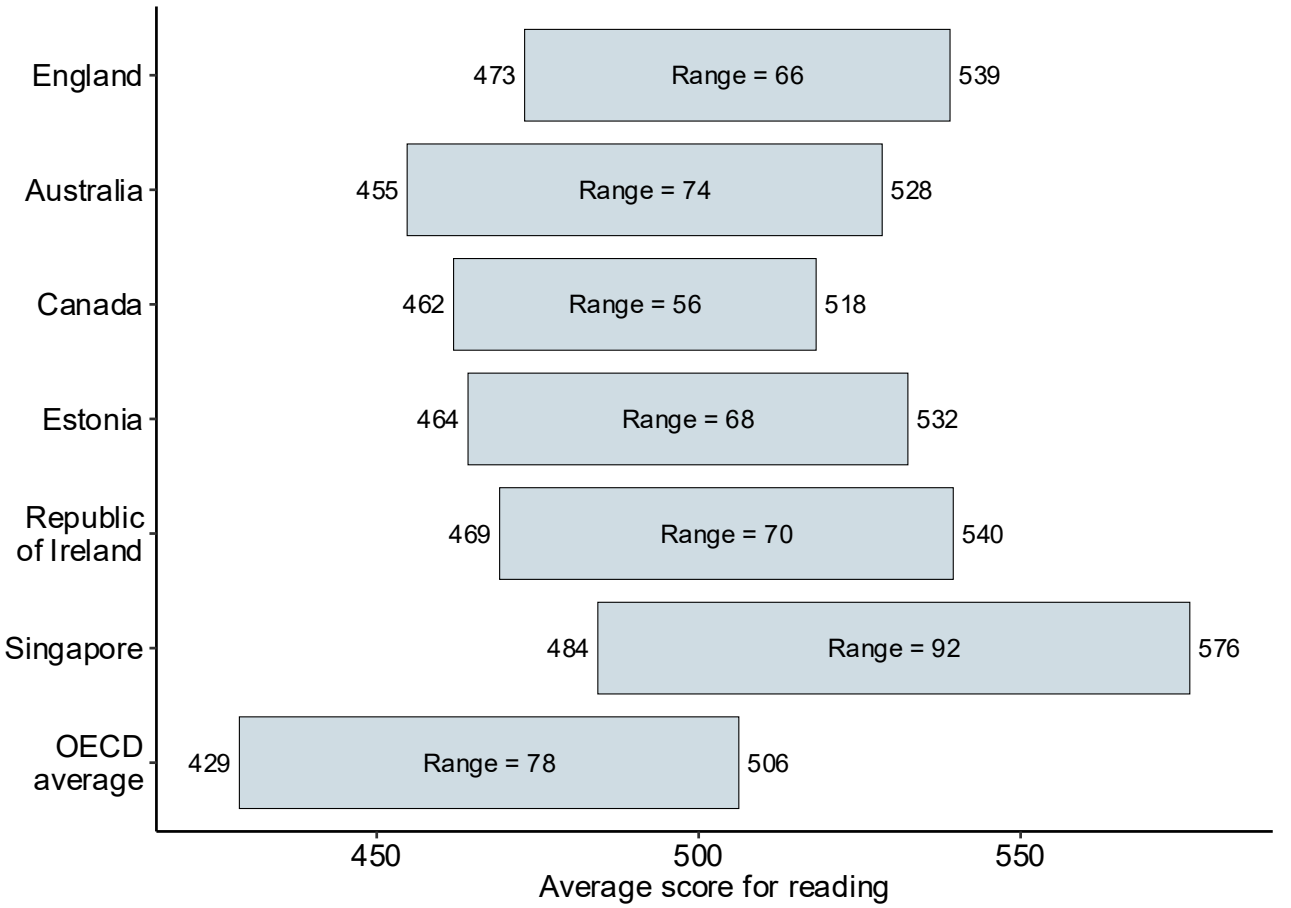
6.6.1 Reading performance according to FSM eligibility

In England, pupils who were eligible for FSM in 2025 achieved an average reading score of 463, significantly below the score for pupils who were not eligible for FSM (502).

6.6.2 Range in reading performance between ESCS Quartile 1 and Quartile 4 in England, comparator countries and the OECD average

The range of reading scores in England (66 points) between pupils in Quartile 1 (473) and pupils in Quartile 4 (539) was not significantly different from the ranges in Australia (74 points), Canada (56 points), Estonia (68 points) and the Republic of Ireland (70 points). By contrast, in Singapore and the OECD average there were significantly wider ranges of reading scores compared with England (92 and 78 points respectively). In Singapore this difference was mostly driven by the significantly higher score in Quartile 4 (576 in Singapore compared with 539 in England, a difference of 37 points). Pupils in Singapore also significantly outperformed pupils in England in Quartile 1, a score difference of 11 points. The significantly wider range in reading scores for the OECD average was mostly driven by a significantly lower score for Quartile 1 (429 compared with 473 in England, a difference of 44 points) (see Figure 6.4).

Figure 6.4: Range in reading performance between ESCS Index Quartiles 1 and 4 in England, comparator countries and the OECD average



Country	ESCS Quartile 1	ESCS Quartile 4	ESCS interquartile range
England	473	539	66
Australia	* 455	* 528	74
Canada	* 462	* 518	56
Estonia	464	532	68
Republic of Ireland	469	540	70
Singapore	* 484	* 576	* 92
OECD average	* 429	* 506	* 78

Base: All participating pupils with ESCS data in the countries included.
Asterisks (*) indicate average scores and ranges that are significantly different from those for England's pupils.
The range was calculated as the average score for Quartile 4 – the average score for Quartile 1.
Ranges may appear inconsistent with quartile scores due to rounding.

Source: OECD PISA database for 2025

6.6.3 The strength of the relationship between ESCS and PISA reading scores (the gradient of the slope)

In England there was a 24-point difference in reading performance associated with a one-unit increase in ESCS, significantly below the OECD average (32 points). This meant there was a significantly stronger relationship between socioeconomic status and reading scores in the OECD on average. The point difference in reading performance in England (24 points) was not significantly different from the average difference in reading scores associated with a one-unit increase in ESCS in Canada (27 points). By contrast, in the remaining comparator countries, there was a significantly stronger relationship between socioeconomic status and reading performance compared with England. The point differences in reading performance associated with one-unit increases in ESCS were: Australia (34 points), Estonia (33 points), the Republic of Ireland (30 points) and Singapore (45 points).

6.6.4 Variation in reading scores between pupils with similar backgrounds

The percentage of the variation in reading performance explained by socioeconomic status in England was 6%, compared with 9% on average across the OECD countries. In Estonia 8% of the variance in reading performance was explained by the ESCS index, while in Australia it was 7%, in Canada, 5%, in the Republic of Ireland 9%, and in Singapore 11%.

6.6.5 Percentage of pupils who were ‘academically resilient’ in reading

In England, 16% of pupils were academically resilient in the context of reading performance, significantly larger than the rate in Singapore (11%) and the OECD average (13%). By contrast, the academic resilience rates in Australia (14%), Canada (15%), Estonia (12%), and the Republic of Ireland (14%) were not significantly different from the rate in England (16%).

6.7 What is the relationship between socioeconomic status and mathematics performance in PISA in England, comparator countries and OECD average?

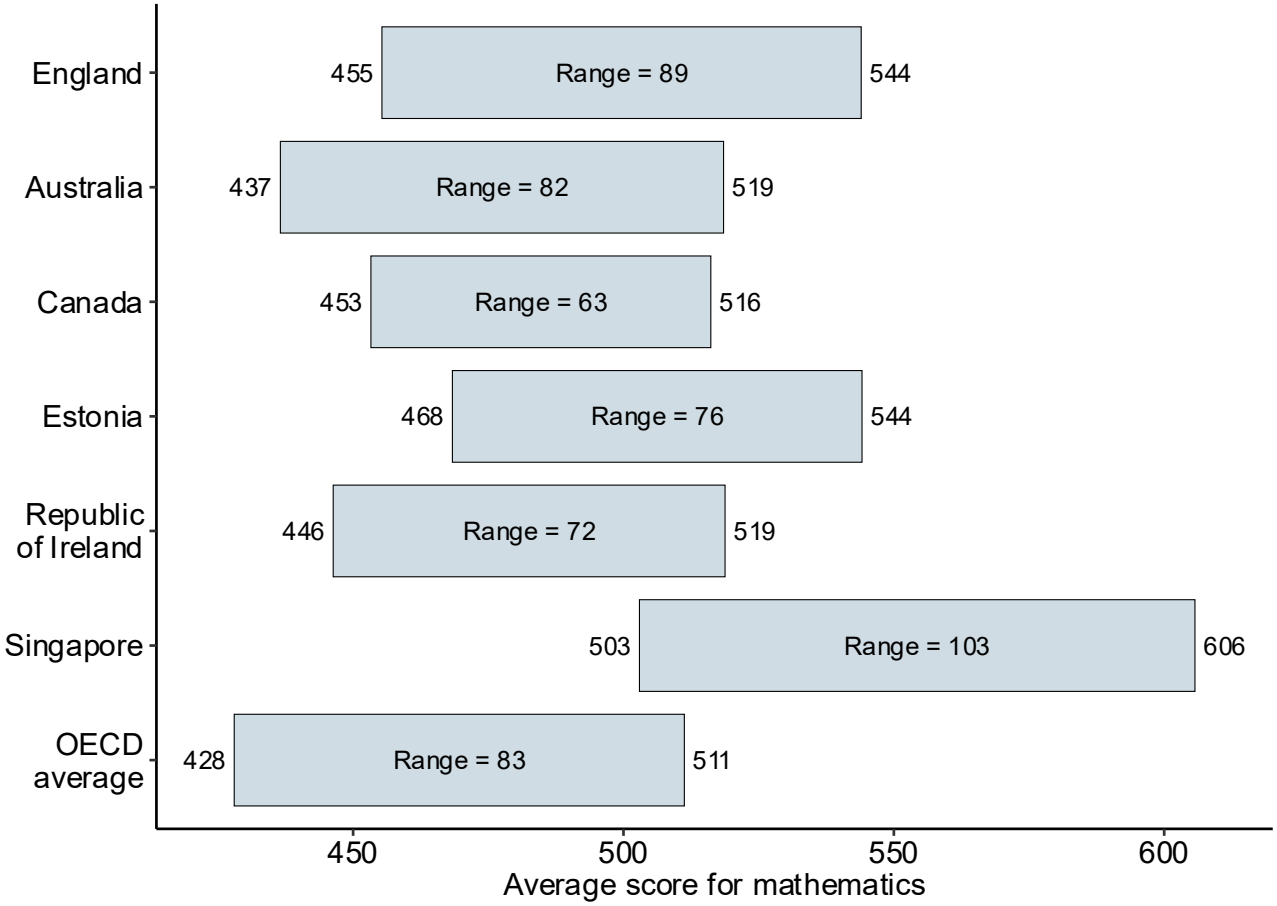
6.7.1 Mathematics performance according to FSM eligibility

In England, pupils who were eligible for FSM in 2025 achieved an average mathematics score of 448, significantly below the score for pupils who were not eligible for FSM (497).

6.7.2 Range in mathematics performance between ESCS Quartile 1 and Quartile 4 in England, comparator countries and the OECD average

The range of mathematics scores in England (89 points) between pupils in Quartile 1 (455) and Quartile 4 (544) was not significantly different from the ranges for the OECD average (83 points), Australia (82 points) and Estonia (76 points). The range of scores in England was significantly narrower than the range in Singapore (103 points). By contrast, England had a significantly wider range of mathematics scores (89 points) compared with Canada (63 points) and the Republic of Ireland (72 points). These differences were mostly driven by the average score for pupils in Quartile 4 in England (544), which was significantly above the corresponding scores in Canada (516) and the Republic of Ireland (519) by 28 and 25 points respectively.

Figure 6.5: Mathematics performance by ESCS Index Quartile in England, comparator countries and the OECD average



Country	ESCS Quartile 1	ESCS Quartile 4	ESCS interquartile range
England	455	544	89
Australia	* 437	* 519	82
Canada	453	* 516	* 63
Estonia	* 468	544	76
Republic of Ireland	* 446	* 519	* 72
Singapore	* 503	* 606	* 103
OECD average	* 428	* 511	83

Base: All participating pupils with ESCS data in the countries included.
Asterisks (*) indicate average scores and ranges that are significantly different from those for England's pupils.
The range was calculated as the average score for Quartile 4 – the average score for Quartile 1.
Ranges may appear inconsistent with quartile scores due to rounding.

Source: OECD PISA database for 2025

6.7.3 The strength of the relationship between ESCS and PISA mathematics scores (gradient of the slope)

There was no significant difference between England's pupils and the OECD average in terms of the relationship between socioeconomic status and mathematics scores. In England there was a 32-point difference in mathematics performance associated with a one-unit increase in ESCS, compared with a 35-point difference on average across the OECD countries. The strength of the relationship between socioeconomic status and mathematics scores in England was not significantly different from the relationships observed in Australia (37 points), Canada (31 points), Estonia (37 points) and the Republic of Ireland (31 points). By contrast, in Singapore compared with England, there was a significantly stronger relationship between socioeconomic status and mathematics performance with a one-unit increase in ESCS (51 and 32 points respectively).

6.7.4 Variation in mathematics scores between pupils with similar backgrounds

The percentage of the variation in mathematics performance explained by socioeconomic status in England was 10%, compared with 12% on average across the OECD countries. The equivalent figures for the comparator countries (variance in mathematics performance explained by the ESCS index) were: Australia (11%), Canada (7%), Estonia (11%), and the Republic of Ireland (11%), with Singapore recording a higher percentage (15%).

6.7.5 Percentage of pupils who were 'academically resilient' in mathematics

In England, 13% of pupils were academically resilient in the context of mathematics performance, not significantly different from the OECD average (12%). The academic resilience rates for mathematics in Australia (12%), Canada (14%), Estonia (11%) and the Republic of Ireland (13%) were also not significantly different from the rate in England (13%) while for Singapore, academic resilience (10%) was significantly below the rate for England.

6.8 Does performance differ by immigration status

The pupil questionnaire in PISA 2025 collected information which identifies whether pupils are first- or second-generation immigrants. PISA defines immigrant pupils as those whose mother and father were both born in a country/economy other than that where the student took the PISA test. The 3 categories of immigrant background used are:

- non-immigrant pupils − those whose mother or father (or both) was/were born in the country where the pupil sat the PISA test, regardless of whether the pupil him/herself was born in that country
- first-generation immigrant pupils − those who were born in another country and whose parents/carers were also born in another country
- second-generation immigrant pupils − those born in the country of assessment but whose parents/carers were both born in another country

The percentage of pupils on average across OECD countries with an immigrant background was 15% in 2025. In England the percentage of pupils with an immigrant background was 27% in 2025. In PISA 2025, the immigration status of 10% of pupils was not available for both England and the OECD average.

6.8.1 Science

Table 6.1 show that in England the average science score for pupils with a first-generation immigrant background (504) was significantly below the score for non-immigrant pupils (523) and pupils with a second-generation immigrant background (530). By contrast, the average score for pupils with a second-generation immigrant background (530) was not significantly different from the average score for non-immigrant pupils (523).

On average across OECD countries, the average science scores for pupils with either a first-generation (437) or second-generation (460) immigrant background were significantly below the average score for non-immigrant pupils (495).

Table 6.1 Immigration background and average science scores in England and the OECD average

Group	England	OECD average
Non-immigrant pupils	523	495
First-generation pupils	504	437
Second-generation pupils	530	460
Difference between non-immigrant pupils and second-generation pupils	–7	* 35
Difference between first-generation pupils and non-immigrant pupils	* –19	* –58
Difference between first-generation pupils and second-generation pupils	* –27	* –23

Base: All participating pupils in England and the OECD with data on Immigration status.
Asterisks (*) indicate score point differences that are significantly different between pupil groups.
Ranges may appear inconsistent due to rounding.
The difference between the performance of non–immigrant pupils and second-generation pupils was calculated as the average score for non-immigrant pupils – the average score for second-generation pupils.
The difference between the performance of non-immigrant pupils and first-generation pupils was calculated as the average score for first-generation pupils – the average score for non-immigrant pupils.
The difference between the performance of first–generation pupils and second-generation pupils was calculated as the average score for first-generation pupils – the average score for second-generation pupils.

Source: OECD PISA 2025 database

6.8.2 Reading

Table 6.2 shows that in England the average reading score for pupils with a first-generation immigrant background (480) was significantly below the score for non-immigrant pupils (504) and pupils with a second-generation immigrant background (515). By contrast, the average reading score for pupils with a second-generation immigrant background (515) was significantly above the average score for non-immigrant pupils (504).

On average across OECD countries, the average reading scores for pupils with either a first-generation (414) or second-generation (442) immigrant background were significantly below the average score for non-immigrant pupils (474).

Table 6.2 Immigration background and average reading scores in England and the OECD average

Group	England	OECD average
Non-immigrant pupils	504	474
First-generation pupils	480	414
Second-generation pupils	515	442
Difference between non-immigrant pupils and second-generation pupils	* –11	* 32
Difference between first-generation pupils and non-immigrant pupils	* –24	* –60
Difference between first-generation pupils and second-generation pupils	* –35	* –28

Base: All participating pupils in England and the OECD with data on Immigration status.
Asterisks (*) indicate score point differences that are significantly different between pupil groups.
The difference between the performance of non-immigrant pupils and second-generation pupils was calculated as the average score for non-immigrant pupils – the average score for second-generation pupils.
The difference between the performance of non-immigrant pupils and first-generation pupils was calculated as the average score for first-generation pupils – the average score for non-immigrant pupils.
The difference between the performance of first-generation pupils and second-generation pupils was calculated as the average score for first-generation pupils – the average score for second-generation pupils.

Source: OECD PISA 2025 database

6.8.3 Mathematics

Table 6.3 shows that in England the average reading score for pupils with a first-generation immigrant background (479) was significantly below the score for non-immigrant pupils (497) and pupils with a second-generation immigrant background (511). By contrast, the average score for pupils with a second-generation immigrant background (511) was significantly above the average score for non-immigrant pupils (497).

On average across OECD countries, the average mathematics score for pupils with either a first-generation (433) or second-generation (447) immigrant background was significantly below the average score for non-immigrant pupils (474).

Table 6.3 Immigration background and average mathematics scores in England and the OECD average

Pupils	England	OECD average
Non-immigrant pupils	497	474
First-generation pupils	479	433
Second-generation pupils	511	447
Difference between non-immigrant pupils and second-generation pupils	* –14	* 28
Difference between first-generation pupils and non-immigrant pupils	* –17	* –41
Difference between first-generation pupils and second-generation pupils	* –32	* –14

Base: All participating pupils in England and the OECD with data on Immigration status.
Asterisks (*) indicate score point differences that are significantly different between pupil groups.
The difference between the performance of non–immigrant pupils and second-generation pupils was calculated as the average score for non-immigrant pupils – the average score for second-generation pupils.
The difference between the performance of non–immigrant pupils and first-generation pupils was calculated as the average score for first-generation pupils – the average score for non-immigrant pupils.
The difference between the performance of first–generation pupils and second–generation pupils was calculated as the average score for first-generation pupils – the average score for second–generation pupils.

7 PISA across the United Kingdom

7.1 Chapter overview

This chapter describes the average PISA science, reading and mathematics scores for pupils in England, Northern Ireland, Scotland and Wales. This chapter also describes the relative performance of the highest- and lowest-achieving pupils in each UK country, the relative gender differences in their average scores, and the relative differences between the most and least disadvantaged socioeconomic groups.

7.2 Key findings

- In PISA 2025, pupils' average score for science in England was 516, significantly above the corresponding scores in Northern Ireland (492), Scotland (491) and Wales (476).
- In PISA 2025, pupils' average score for reading in England was 497, significantly above the corresponding scores in Northern Ireland (482), Scotland (488) and Wales (459).
- In PISA 2025, pupils' average score for mathematics in England was 492, significantly above the corresponding scores in Northern Ireland (473), Scotland (467) and Wales (456).
- Each UK country saw a stable trend over time in science with no significant difference in pupils' average score between PISA 2015 and 2025.
- In England, as in Scotland, average reading scores also remained stable between PISA 2015 and 2025, while in Northern Ireland and Wales there were significant downward trends in pupils' average scores over the same period.
- In mathematics, pupils' average scores in England remained stable between PISA 2015 and 2025 while the other 3 countries saw a significant downward trend in pupils' average scores over the same period.
- Gender differences in PISA 2025 were consistent across the 4 countries for reading with girls achieving a significantly higher average score than boys.
- In mathematics, there were significant gender gaps favouring boys in pupils' average scores in each country except Northern Ireland where there was no significant difference between girls' and boys' scores.
- In science, there was a significant gender gap in favour of boys in England but no significant difference between girls' and boys' mathematics scores in Wales, Northern Ireland and Scotland.

- As in previous cycles, pupils from less disadvantaged socioeconomic backgrounds performed better than their peers from more disadvantaged backgrounds across all domains and all countries.

7.3 Introduction

Though there are many similarities between England, Northern Ireland, Scotland, and Wales, there are also substantive differences in terms of their education systems, culture, and demographic composition. The purpose of this chapter is not to explore possible explanations for the differing scores between the UK countries, but rather to summarise and report scores within the 3 PISA subject domains of science, reading and mathematics.

7.4 How did pupils perform in each domain?

Figure 7.1 shows the average PISA scores for each country in each of the 3 domains. However, not all differences between countries were significant, meaning their rank order should be interpreted with caution. This section focuses on significant differences between the average scores in England and the other UK countries.

Science

Pupils' average score for science in England was 516, significantly above the corresponding scores in Northern Ireland (492), Scotland (491) and Wales (476).

Reading

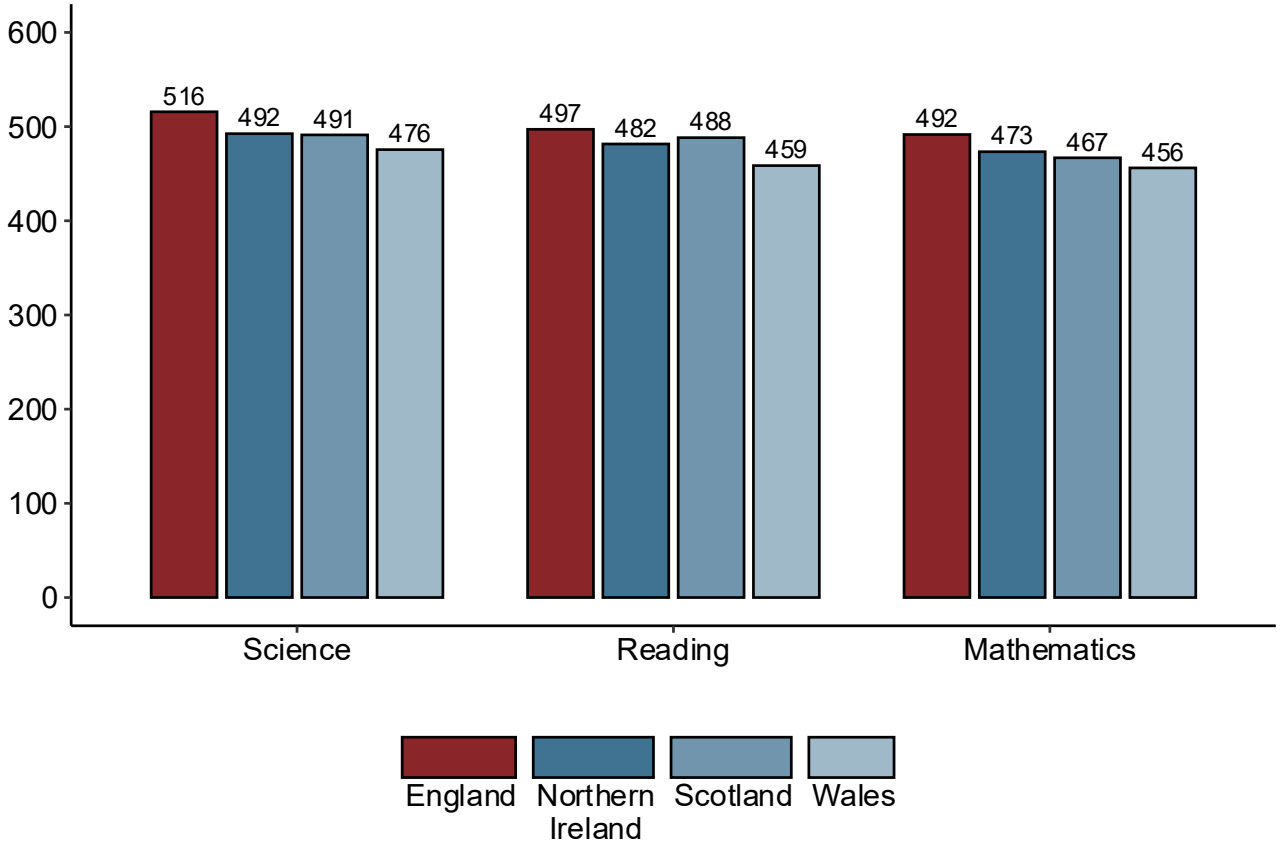
Pupils' average score for reading in England was 497, significantly above the corresponding scores in Northern Ireland (482), Scotland (488) and Wales (459).

Mathematics

Pupils' average score for mathematics in England was 492, significantly above the corresponding scores in Northern Ireland (473), Scotland (467) and Wales (456).

Figure 7.1 Pupils' average PISA domain scores by UK country

Scores by domain and country



Country	Science	Reading	Mathematics
England	516	497	492
Northern Ireland	* 492	* 482	* 473
Scotland	* 491	* 488	* 467
Wales	* 476	* 459	* 456

Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Asterisks (*) indicate average scores that are significantly different from the average score for pupils in England in PISA 2025.

Source: OECD PISA database for 2025

7.5 How did pupils perform across the PISA proficiency levels?

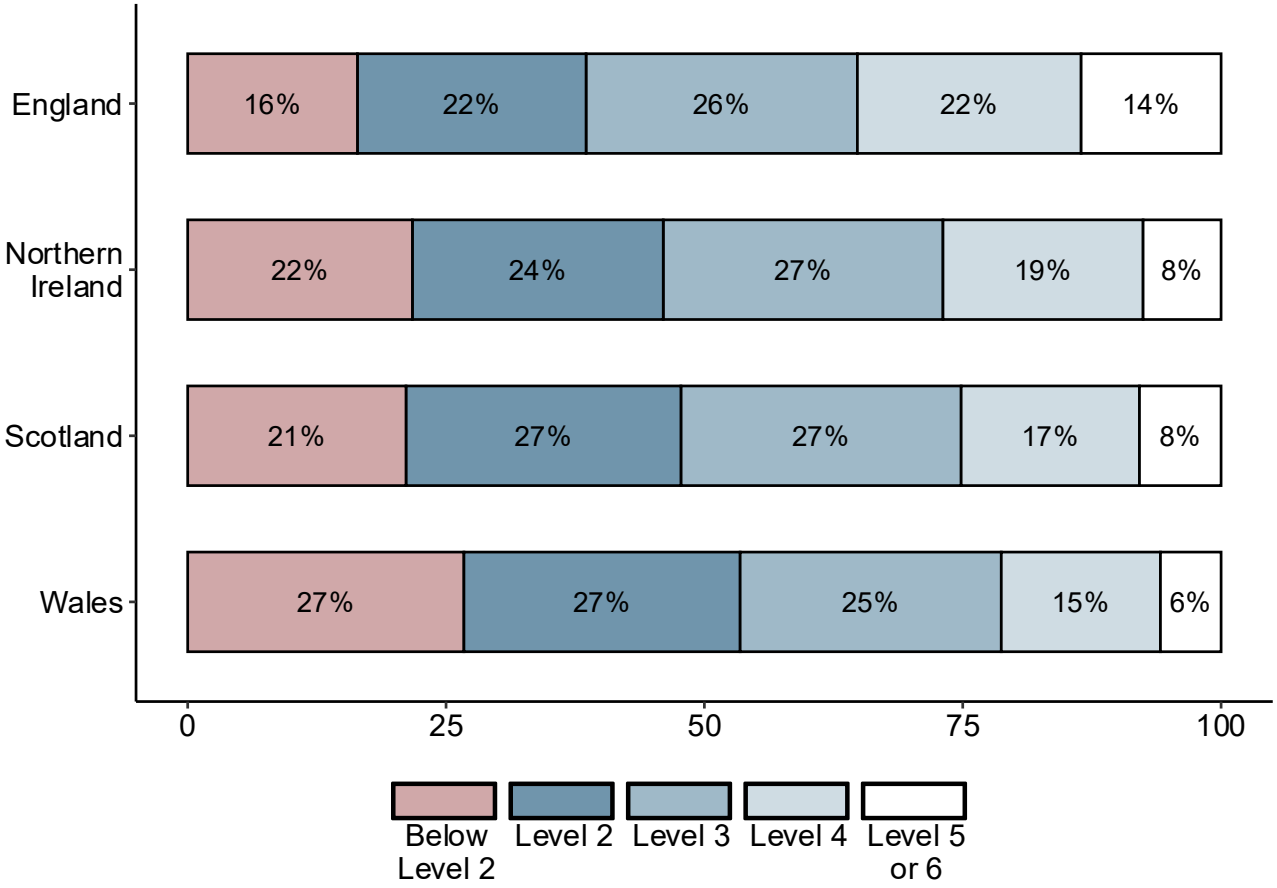
The UK countries may also be compared in terms of the percentages of pupils attaining each of the PISA proficiency levels for science, reading and mathematics (levels range between 1 and 6). In the following sections the proportion of higher-performing pupils

(those pupils attaining Level 5 or 6) and lower-performing pupils (those pupils attaining below Level 2) are reported across the UK countries.

Science

Figure 7.2 shows that in PISA 2025, the percentage of pupils in England performing at Levels 5 or 6 in science was 14%, significantly larger than the corresponding percentages in Northern Ireland (8%), Scotland (8%) and Wales (6%). The percentage of pupils in England performing below Level 2 in science was 16%, significantly smaller than the corresponding percentages in Northern Ireland (22%), Scotland (21%) and Wales (27%).

Figure 7.2 Percentage of pupils achieving each science proficiency level by UK country



Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	16%	22%	26%	22%	14%
Northern Ireland	* 22%	24%	27%	19%	* 8%
Scotland	* 21%	* 27%	27%	* 17%	* 8%
Wales	* 27%	* 27%	25%	* 15%	* 6%

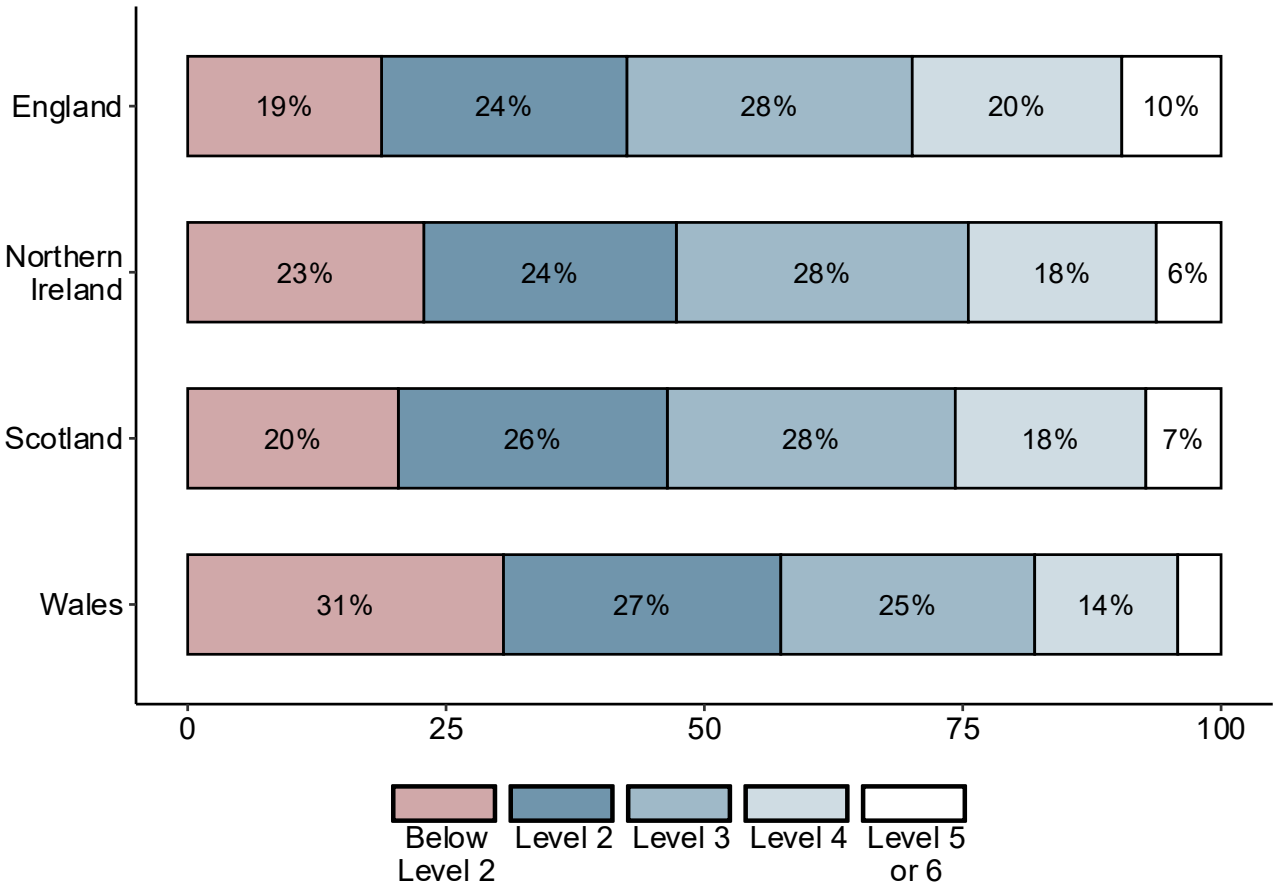
Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Asterisks (*) indicate percentages that are significantly different from the percentages for pupils in England.
Individual percentages may not total 100% due to rounding.

Source: OECD PISA database for 2025

Reading

Figure 7.3 shows that in England, the percentage of pupils performing at Levels 5 or 6 in reading was 10%, significantly larger than the corresponding percentages in Northern Ireland (6%), Scotland (7%) and Wales (4%). The percentage of pupils in England performing below Level 2 in reading was 19%, significantly smaller than the corresponding percentages in Northern Ireland (23%) and Wales (31%) and not significantly different from the percentage in Scotland (20%).

Figure 7.3 Percentage of pupils achieving each reading proficiency level by UK country



Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	19%	24%	28%	20%	10%
Northern Ireland	* 23%	24%	28%	18%	* 6%
Scotland	20%	26%	28%	18%	* 7%
Wales	* 31%	* 27%	* 25%	* 14%	* 4%

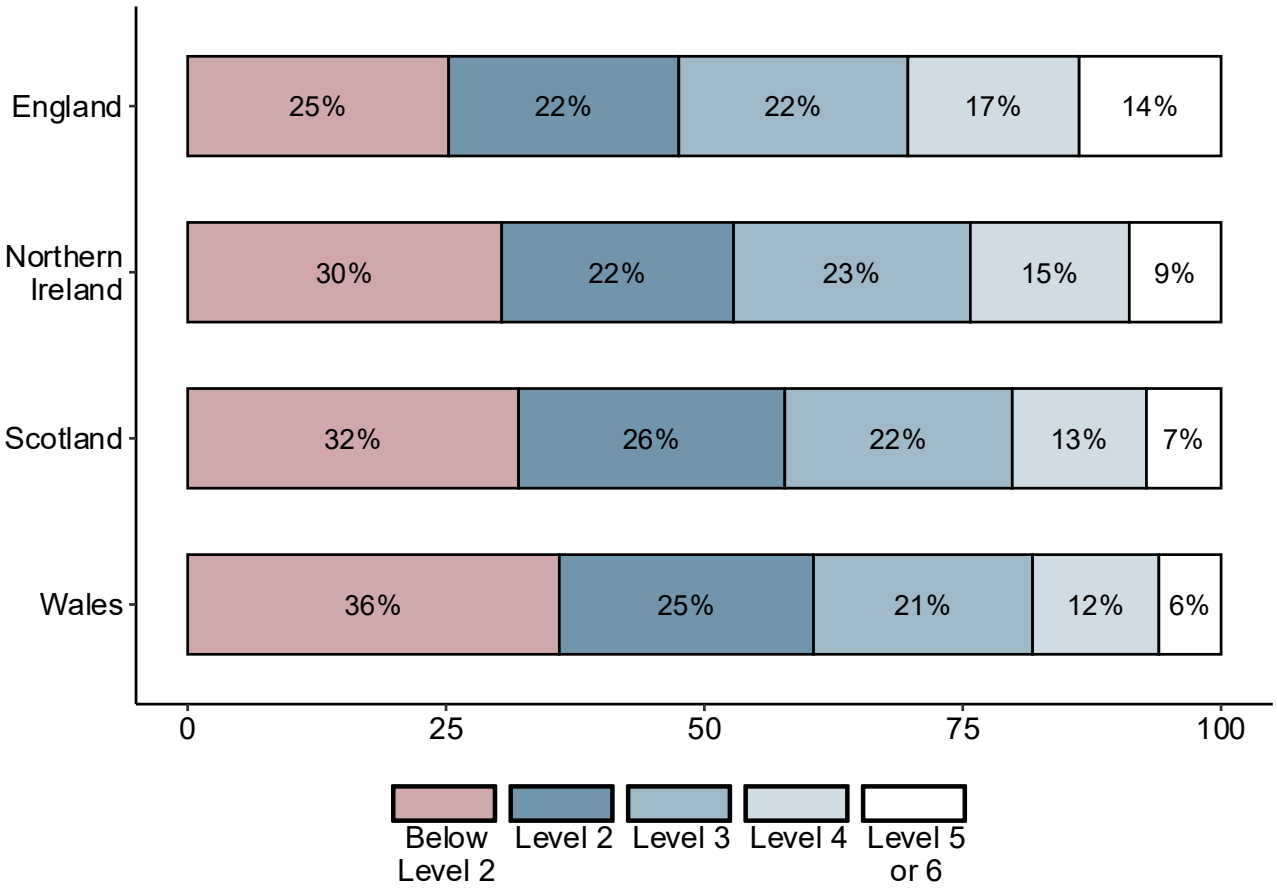
Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Asterisks (*) indicate percentages that are significantly different from the percentages for pupils in England.
Individual percentages may not total 100% due to rounding.
Percentages below 4.5% are not displayed on the chart for visual clarity.

Source: OECD PISA database for 2025

Mathematics

Figure 7.4 shows that in England, the percentage of pupils performing at Levels 5 or 6 in mathematics was 14%, significantly larger than the corresponding percentages in Northern Ireland (9%), Scotland (7%) and Wales (6%). The percentage of pupils in England performing below Level 2 in mathematics was 25%, significantly smaller than the corresponding percentages in Northern Ireland (30%), Scotland (32%) and Wales (36%).

Figure 7.4 Percentage of pupils achieving each mathematics proficiency level by UK country



Country	Below Level 2	Level 2	Level 3	Level 4	Level 5 or 6
England	25%	22%	22%	17%	14%
Northern Ireland	* 30%	23%	23%	15%	* 9%
Scotland	* 32%	* 26%	22%	* 13%	* 7%
Wales	* 36%	25%	21%	* 12%	* 6%

Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Asterisks (*) indicate percentages that are significantly different from the percentages for pupils in England.
Individual percentages may not total 100% due to rounding.

Source: OECD PISA database for 2025

7.6 How did pupils perform over time?

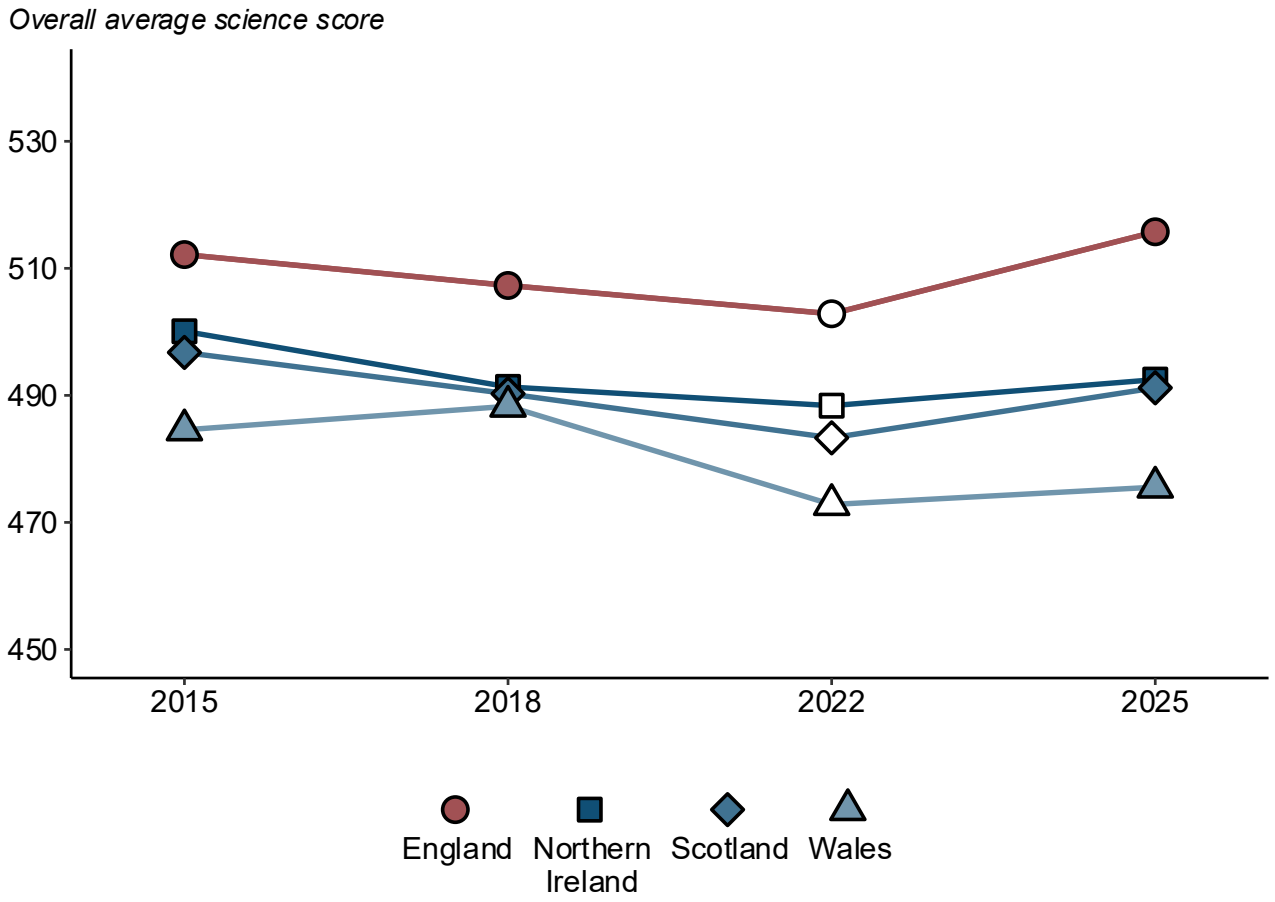
Science

Figure 7.5 shows that the average science score for pupils in England in PISA 2025 (516) was not significantly different from the score in 2015 (512) reflecting a stable trend over the longer term. The same pattern was found when comparing the average score for 2025

(516) with the score for 2018 (507). By contrast, the average score for pupils in England in 2025 (516) was significantly above the score for 2022 (503).

In Northern Ireland, Scotland and Wales there were also no significant differences between pupils' 2025 scores and the corresponding scores in 2015 reflecting stable longer-term trends. This was also the case when comparing 2025 scores with scores in 2022 and 2018 except in one case where pupils in Wales in PISA 2025 achieved an average score significantly below the score in 2018 (476 compared with 488 respectively).

Figure 7.5: Trend in pupils' average science score by UK country



Country	2015	2018	2022	2025
England	512	507	* 503	516
Northern Ireland	500	491	488	492
Scotland	497	490	483	491
Wales	485	* 488	473	476

Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.

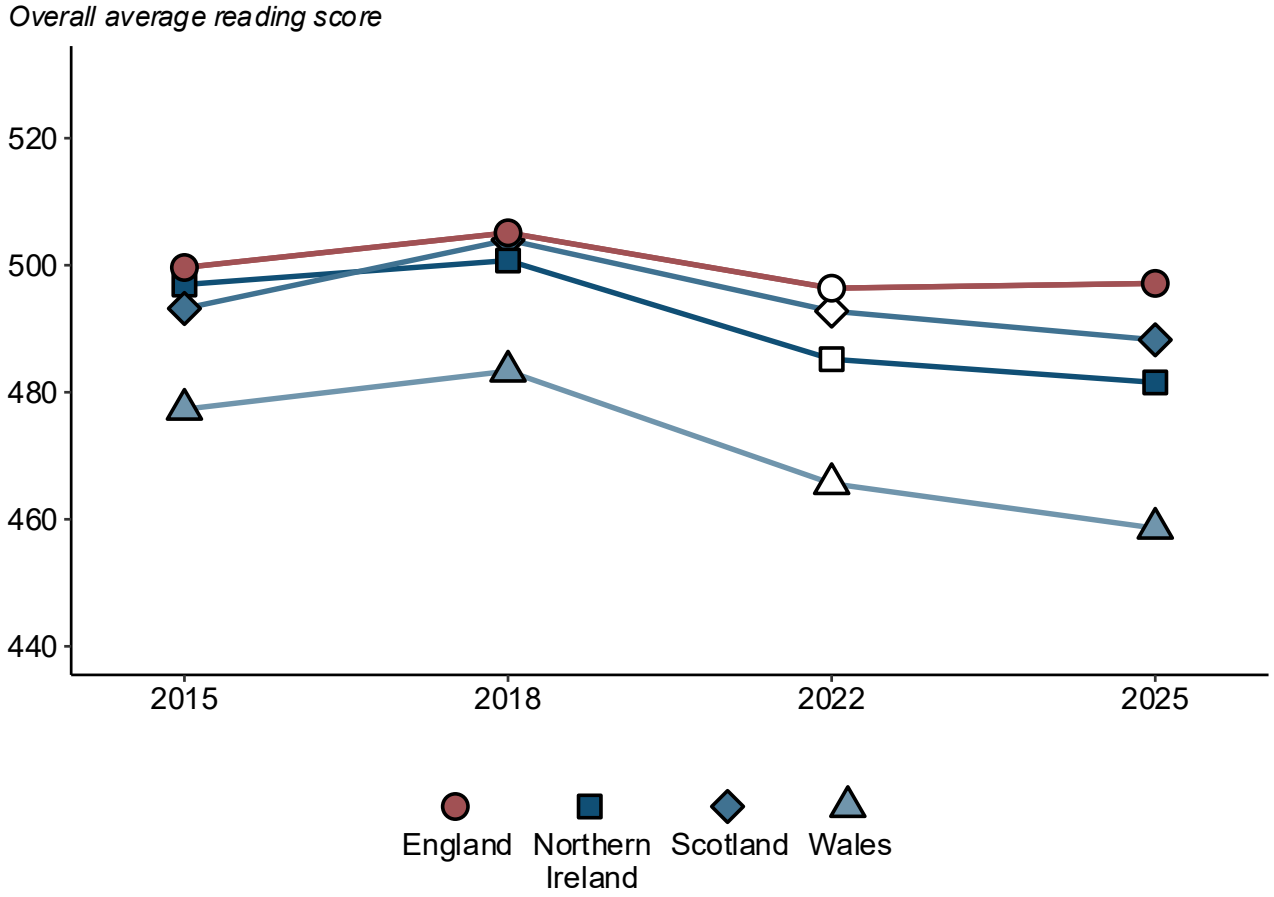
Source: OECD PISA databases for 2025, 2022, 2018 and 2015

Reading

Figure 7.6 shows that in England, the longer-term trend in pupils' average reading scores was stable with no significant differences recorded between the reading scores in 2025 (497) and 2015 (500). This was also the case when comparing the average score for England's pupils in 2025 (497) with those recorded in 2022 and 2018 (496 and 505 respectively).

By contrast, there were significant downward trends in the average scores of pupils in Northern Ireland and Wales in 2025 compared with 2015 scores. The average scores in 2025 were also significantly below the 2018 scores in each of these countries. In Scotland, pupils also achieved an average score in 2025 (488) significantly below the score in 2018 (504). However, between 2015 (493) and 2025 (488) the longer-term trend in Scotland, as in England, was stable with no significant difference between its pupils' scores.

Figure 7.6 Trend in pupils' average reading score by UK country



Country	2015	2018	2022	2025
England	500	505	496	497
Northern Ireland	* 497	* 501	485	482
Scotland	493	* 504	493	488
Wales	* 477	* 483	466	459

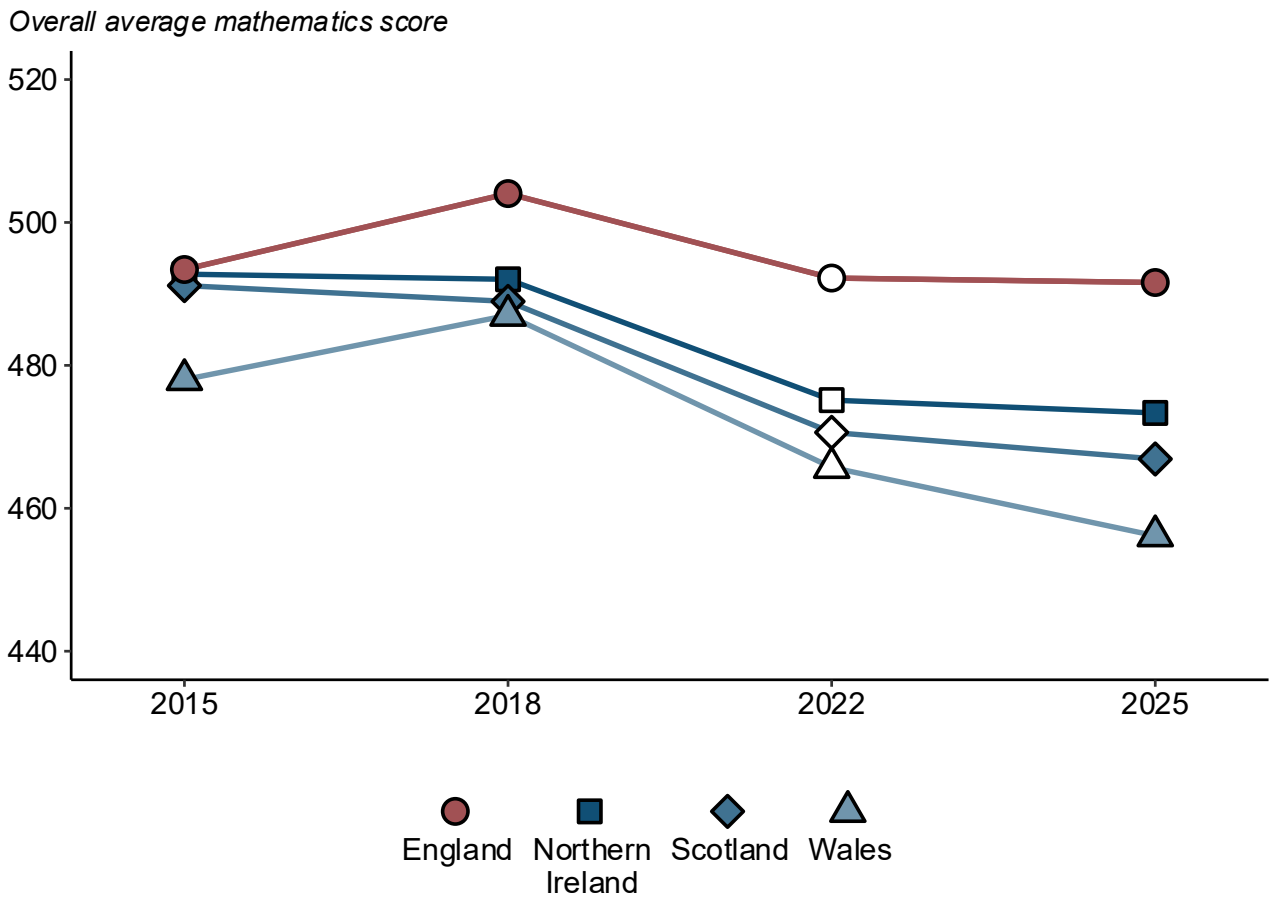
Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

Mathematics

Figure 7.7 shows that in England, as for science and reading, the longer-term trend in pupils' average mathematics scores was stable with no significant differences recorded between the score in 2015 (493) and the 2025 score (492). There was also no significant difference when comparing pupils' average score in 2025 with the score in 2022 (492) but the score in 2025 (492) was significantly below the score in 2018 (504). By contrast, the average score in 2025 for pupils in each of the other 3 countries saw a significant downward trend compared with the 2015 scores. Similarly, pupils' average scores in 2025 in each country were significantly below the 2018 scores and, in the case of Wales it was also significantly below compared with the 2022 score.

Figure 7.7 Trend in pupils' average mathematics score by UK country



Country	2015	2018	2022	2025
England	493	* 504	492	492
Northern Ireland	* 493	* 492	475	473
Scotland	* 491	* 489	471	467
Wales	* 478	* 487	* 466	456

Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Asterisks (*) indicate that the score shown was significantly different from the average score in that country for PISA 2025.
PISA cycles in which PISA sampling standards were not all met are indicated by a white point in the figure.

Source: OECD PISA databases for 2025, 2022, 2018 and 2015

7.7 How did the highest- and lowest-performing pupils achieve?

This section compares the performance of the highest- and lowest-achieving groups in each UK country. Figure 7.8 shows the 10th and 90th percentile scores for science, reading and mathematics for each UK country and provides the difference (the interdecile range, shortened to range) between these two scores.

Science

In science in 2025, there was no significant difference between the range of scores for pupils in England (274) compared with the range for pupils in Northern Ireland (261). By contrast, the range for pupils in England (274) was significantly wider than the ranges for pupils in Scotland (255) and Wales (261). This difference was mostly driven by pupils in England achieving an average score at the 90th percentile (651) that was 31 and 45 score points higher respectively than the corresponding scores for pupils in Scotland (620) and Wales (606).

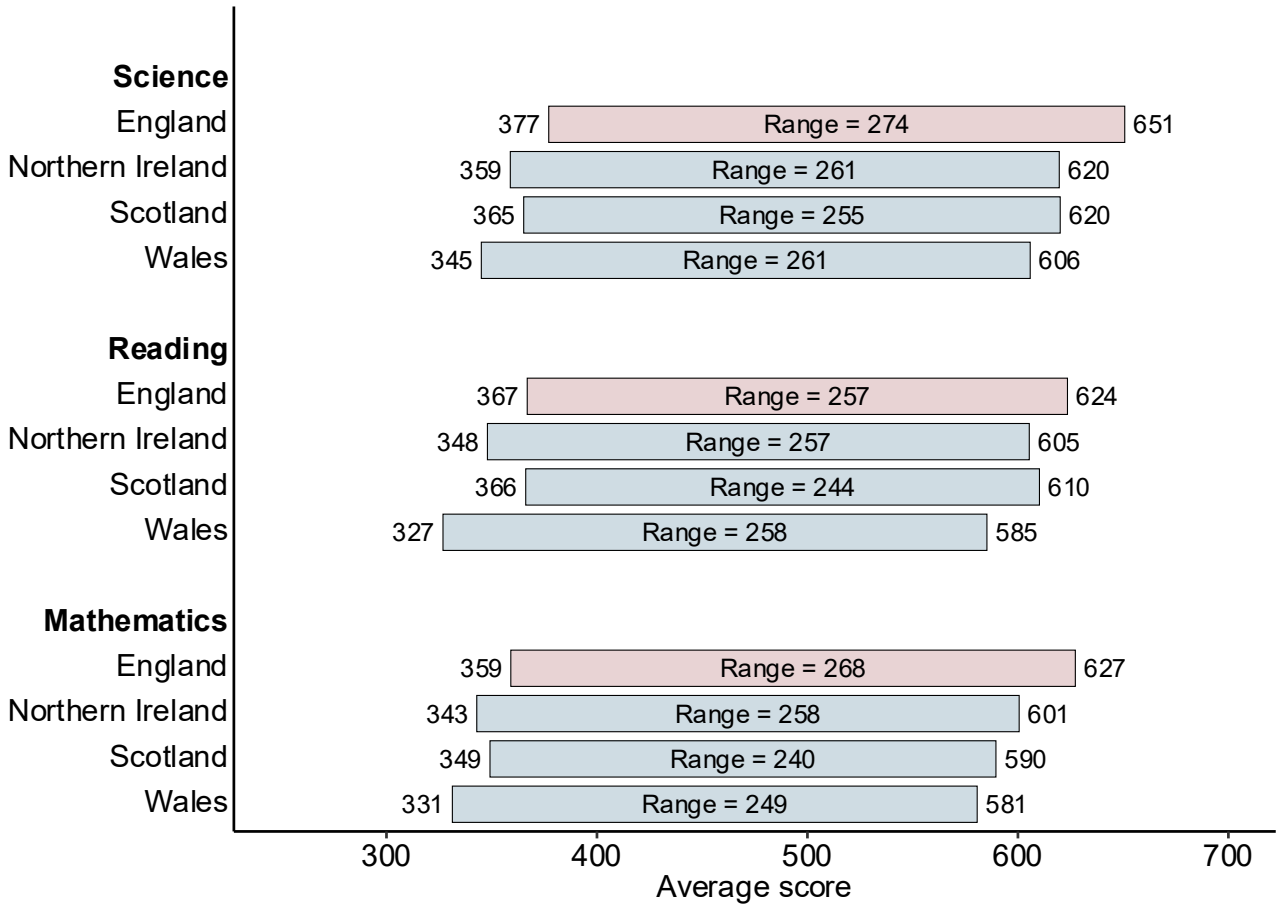
Reading

In reading, there were no significant differences between the range of scores for pupils in England (257) and the ranges for Northern Ireland (257), Scotland (244) and Wales (258).

Mathematics

In mathematics, there was no significant difference between the range of pupils' scores in England (268) compared with the range for pupils in Northern Ireland (258). By contrast, the range of scores for pupils in England (268) was significantly wider than the corresponding ranges in Scotland (240) and Wales (249). These differences were mostly driven by pupils in England achieving an average score at the 90th percentile (627) that was 37 and 46 score points higher respectively than the corresponding scores for pupils in Scotland and Wales (590 and 581).

Figure 7.8 Interdecile range between 10th and 90th percentile scores in science, reading and mathematics by UK country



Country and domain	Score at the 10th percentile	Score at the 90th percentile	Interdecile range
Science England	377	651	274
Science Northern Ireland	* 359	* 620	261
Science Scotland	* 365	* 620	* 255
Science Wales	* 345	* 606	* 261
Reading England	367	624	257
Reading Northern Ireland	* 348	* 605	257
Reading Scotland	366	* 610	244
Reading Wales	* 327	* 585	258
Mathematics England	359	627	268
Mathematics Northern Ireland	* 343	* 601	258
Mathematics Scotland	349	* 590	* 240
Mathematics Wales	* 331	* 581	* 249

Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Interdecile ranges were calculated as 90th percentile − 10th percentile.
Asterisks (*) indicate a score or range that is significantly different from the equivalent for pupils in England.
Ranges may appear inconsistent due to rounding.

Source: OECD PISA database for 2025

7.8 How did girls and boys perform?

This section provides the average PISA scores for girls and boys in each subject domain in each UK country. In the following tables, the gap between these scores was determined as the girls' average score – the boys' average score. A positive difference represents a gender gap favouring girls and a negative difference represents a gender gap favouring boys.

Science

Table 7.1 shows the average PISA science scores by gender for each UK country. The average score for girls in England (509) was significantly below the score for boys (522), a gender gap of −13 points. By contrast, the corresponding average scores in each of the other 3 countries were not significantly different. The gender gap for pupils in England

(−13 points) was significantly different from the corresponding non-significant differences in Northern Ireland and Wales[48].

Table 7.1 Pupils' average science score gender difference by UK country

Country	Girls	Boys	Gap
England	509	522	* −13
Northern Ireland	494	491	2
Scotland	490	493	−3
Wales	476	475	2

Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Gaps were calculated as girls' scores − boys' scores. A positive difference represents a difference by gender favouring girls and a negative difference represents a difference by gender favouring boys.
Some results may appear inconsistent due to rounding.
Asterisks (*) indicate that girls' average scores are significantly different from boys' average scores within individual PISA cycles.

Source: OECD PISA database for 2025

Reading

Table 7.2 shows the average PISA reading scores by gender for each UK country. For reading, girls' average scores were significantly above boys' scores in all 4 UK countries.

The gap between England's girls and boys (11 points) was significantly narrower than the corresponding gender gaps in each of the other UK countries: Northern Ireland (30 points), Scotland (30 points) and Wales (26 points)[49].

[48] These significance tests (to ascertain whether there are significant differences between the science gender in England and equivalent gaps in other countries) are not represented in Table 7.1. Asterisks (*) in Table 7.1 indicate a significant gender gap within a country.
[49] These significance tests (to ascertain whether there are significant differences between the reading gender gap in England and equivalent gaps in other countries) are not represented in Table 7.2. Asterisks (*) in Table 7.2 indicate a significant gender gap within a country.

Table 7.2 Pupils' average reading score gender difference by UK country

Country	Girls	Boys	Gap
England	503	492	* 11
Northern Ireland	497	467	* 30
Scotland	503	473	* 30
Wales	472	446	* 26

Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Gaps were calculated as girls' scores − boys' scores. A positive difference represents a difference by gender favouring girls and a negative difference represents a difference by gender favouring boys.
Some results may appear inconsistent due to rounding.
Asterisks (*) indicate that girls' average scores are significantly different from boys' average scores within individual PISA cycles.

Source: OECD PISA database for 2025

Mathematics

Table 7.3 shows that in England (−26), Scotland (−16) and Wales (−12), the average mathematics scores for girls were significantly below the scores for boys. In Northern Ireland, the gender gap (−9) was not significant.

The gender gap for pupils in England (−26 points) was significantly wider than the corresponding gaps in Northern Ireland (non-significant, −9) and Wales (−12), but not in Scotland (−16)[50].

[50] These significance tests (to ascertain whether there are significant differences between the mathematics gender gap in England and the equivalent gap in other countries) are not represented in Table 7.3. Asterisks (*) in Table 7.3 indicate a significant gender gap within a country.

Table 7.3 Pupils' average mathematics score gender difference by UK country

Country	Girls	Boys	Gap
England	478	504	* −26
Northern Ireland	469	478	−9
Scotland	459	475	* −16
Wales	450	462	* −12

Base: All participating pupils in England, Northern Ireland, Scotland and Wales.
Gaps were calculated as girls' scores − boys' scores. A positive difference represents a difference by gender favouring girls and a negative difference represents a difference by gender favouring boys.
Some results may appear inconsistent due to rounding.
Asterisks (*) indicate that girls' average scores are significantly different from boys' average scores within individual PISA cycles.

Source: OECD PISA database for 2025

7.9 What was the relationship between socioeconomic status and pupils' performance?

This section explores how different socioeconomic groups perform relative to each other across the UK countries. As in previous chapters, pupils are divided into quartiles based on their score on the PISA index of economic, social and cultural status (ESCS). Quartile 1 represents the most disadvantaged pupils and Quartile 4 the least disadvantaged pupils. Interquartile ranges (shortened to ranges) have been calculated by subtracting the Quartile 1 average score from the Quartile 4 average score to show the spread of pupils' attainment by socioeconomic status. Figure 7.9 shows the average domain scores for pupils in Quartile 1 and Quartile 4 in addition to the range in scores between these quartiles for each of the UK countries.

Science

The range of average science scores in England (81 points) between pupils in Quartile 1 (483) and Quartile 4 (565) was not significantly different from the corresponding ranges in Northern Ireland (82 points: 459 and 542), Scotland (72 points: 462 and 534) and Wales (65 points: 448 and 513).

Reading

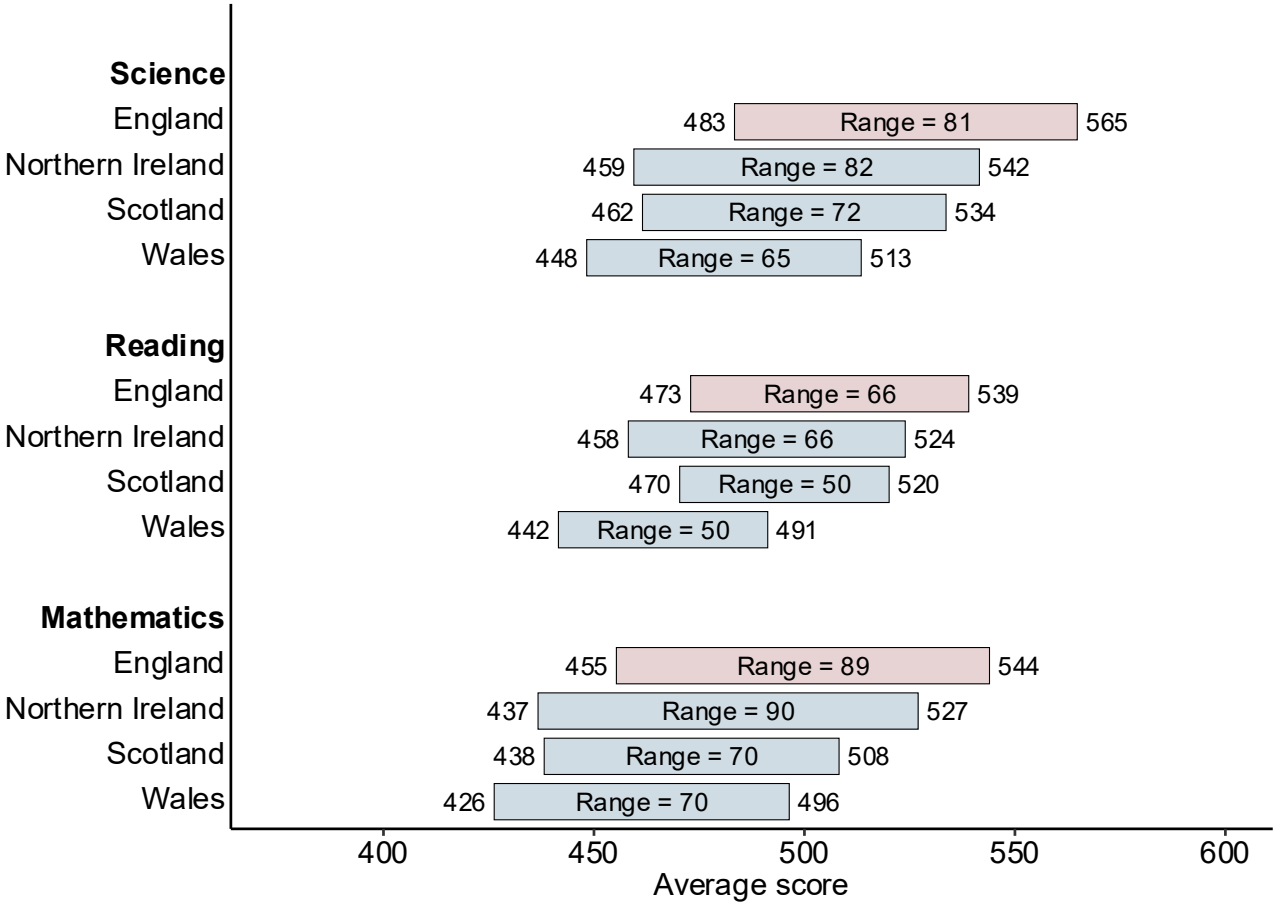
The range of average reading scores in England (66 points) between pupils in Quartile 1 (473) and Quartile 4 (539) was not significantly different from the corresponding ranges in Northern Ireland (66 points: 458 and 524) or Wales (50 points: 442 and 491). By contrast,

the range for pupils in England was significantly wider compared with the corresponding range in Scotland (50 points: 470 and 520)[51].

Mathematics

The range of average mathematics scores in England (89 points) between pupils in Quartile 1 (455) and Quartile 4 (544) was not significantly different from the corresponding range in Northern Ireland (90: 437 and 527). By contrast, the range for pupils in England was significantly wider than the corresponding ranges in Scotland (70 points: 438 and 508) and Wales (70 points: 426 and 496).

Figure 7.9 Ranges between average scores for pupils in PISA ESCS Quartiles 1 and 4 by UK country



[51] Rounding of figures can affect whether the same number can be significant in one instance but not in another.

Country and domain	ESCS Quartile 1	ESCS Quartile 4	Interquartile range
Science England	483	565	81
Science Northern Ireland	* 459	* 542	82
Science Scotland	* 462	* 534	72
Science Wales	* 448	* 513	65
Reading England	473	539	66
Reading Northern Ireland	* 458	* 524	66
Reading Scotland	470	* 520	* 50
Reading Wales	* 442	* 491	50
Mathematics England	455	544	89
Mathematics Northern Ireland	* 437	* 527	90
Mathematics Scotland	* 438	* 508	*70
Mathematics Wales	* 426	* 496	*70

Base: All participating pupils with ESCS data in England, Northern Ireland, Scotland and Wales.
Asterisks (*) indicate average scores and ranges that are significantly different from those for England's pupils.
The range was calculated as Quartile 4 average score – Quartile 1 average score.
Ranges may appear inconsistent with quartile scores due to rounding.
Two countries with the same or similar range in scores may have different outcomes from significance testing due to the different sample sizes and rounding.

Source: OECD PISA database for 2025

8 Conclusion

Volume 1 of the PISA 2025 National Report for England has presented an overview of the achievement of pupils in science, reading and mathematics using the PISA frameworks for science, reading and mathematics. Pupils in England achieved an average score of 516 in science, significantly above the OECD average of 482. In reading, they scored an average of 497, which was significantly above the OECD average of 461, and in mathematics, pupils had an average score of 492, which was also significantly above the OECD average of 463. Chapters 2–4 have reported in detail on the comparisons of these scores and the differences between highest- and lowest-performing pupils with other countries, commenting on trends over time, and testing for significance where appropriate.

In PISA 2025, a significant gap appeared between the average science scores for girls (509) and boys (522), which is the opposite gender gap to the OECD trend average. There is a similar significant gender gap in mathematics, with boys achieving 504 and girls achieving 478. However, the gender gap was reversed in reading, with girls achieving an average score of 503 which was significantly above the average score of the boys at 492. On the ESCS Index, England's average score was +0.10, indicating that pupils' socioeconomic status in England, on average, was above the OECD average. The difference between the most and least disadvantaged groups was 81 points in science, 66 points in reading and 89 points in mathematics in England. These ranges for science and mathematics were not significantly different from the average ranges across the OECD countries, while the range in scores for reading was significantly narrower in England. Chapters 5 and 6 have described in detail the achievements of different groups of pupils. Chapter 7 has reported on the key comparisons of the scores between the countries in the UK. In England, pupils' average scores in science, reading and mathematics were all significantly above the corresponding scores in Northern Ireland, Scotland and Wales.

Volume 2 of the PISA 2025 National Report for England will report on the patterns of achievement across selected subdomains. Aspects of pupils' wellbeing, their aspirations and their experiences of teaching and learning will be discussed, as well as other key findings from the questionnaires completed by participating pupils and schools.

Appendix A England non-response bias analysis

A.1 Introduction

A.1.1 What is a non-response bias analysis?

International assessments such as PISA are designed to draw conclusions about national pupil populations. Achieving this relies on obtaining samples of pupils in each participating country that accurately represent their national pupil populations.

The sampling approaches used in PISA are designed to ensure that the participating schools, and the participating pupils within those schools, adequately reflect the target population. However, schools and pupils in England may choose not to participate in the study. This non-response may occur at random, but it is also possible that non-respondents share characteristics that make the achieved sample less representative of the target population.

A non-response bias analysis investigates whether non-response has affected the representativeness of the achieved sample and, consequently, the validity of the reported results. In this analysis of PISA data, we examined whether responding and non-responding schools and pupils in England's national sample differed in terms of their characteristics. If non-response is systematically associated with characteristics that are also related to PISA outcomes, the reported results may be biased. For example, if boys were more likely to participate than girls, or if schools with higher levels of pupil eligibility for free school meals were underrepresented in the final sample, the achieved sample may no longer accurately reflect the national pupil population, potentially affecting the validity of the reported findings.

A.1.2 How were schools and pupils selected to participate in PISA?

To select the national samples of each participating country, PISA adopts a stratified sampling design consisting of two stages. The first stage focuses on the selection of schools. The second stage focuses on the selection of pupils within the schools that agreed to participate in the study.

In each country, the probability of an individual school being selected is based on the estimated number of age-eligible pupils within the school, as well as country-specific factors that reflect the national structure of schools. In England, two additional factors were selected as explicit sampling strata that contributed to the probability of school selection: the region within England (Greater London, the South, the Midlands, or the North), and the school type (academies, maintained schools, selective schools, and independent schools).

Sampled schools in England may choose to opt out of participation. To help ensure that the final sample of participating schools reflects the national distribution of schools as accurately as possible, for each school selected in the original sample, two ‘replacement’

schools are identified that closely mirror the original. Should the original school opt-out of participation, one of the replacement schools can be invited to take their place.

England's original sample consisted of 205 schools. 410 other schools were identified as either first or second replacement schools for each of the original 205 schools. Of these original 205 schools, 162 agreed to participate. However, 2 of these schools were unable to participate on the day due to technical issues, and the data from one additional school was excluded because the pupil-level response rate within that school fell below the OECD's acceptable threshold. England's final sample therefore consisted of 159 schools from the original sample. An additional 24 replacement schools agreed to participate, leading to a final participating sample of 183 schools.

Within each school that participates in PISA, a sample of up to 40 age-eligible pupils is randomly selected to participate. The OECD require that each participating pupil is aged between 15 years 3 months and 16 years 2 months at the onset of data collection. All age-eligible pupils in a school have an equal probability of being selected to participate in the study. Pupils may be excluded from the study if they have special educational needs or disabilities (SEND) that would impact their ability to take the assessments, or if they have insufficient English-language experience. Selected pupils may also choose not to participate in the assessment. Performance data were collected for 5,619 of the 7,270 sampled pupils in participating schools. Non-participating pupils in participating schools are not replaced.

A.1.3 Key questions about England's national sample

This non-response bias analysis looked to address the following questions about England's national sample:

- Were there any specific characteristics common among the original sample schools that chose not to participate, and were these sufficiently accounted for by the introduction of participating replacement schools?
- Were there any specific characteristics common among the selected pupils that chose not to participate, and how well do the participating pupils reflect the national population of pupils that would have been eligible to participate in the study?

The answers to these questions help us to understand how representative the final set of participating pupils were of the total population of PISA-eligible pupils in England, and therefore, how representative the national findings from PISA 2025 are.

A.2 Methodology

A.2.1 School-level analyses

The school-level analyses consisted of two stages:

- Analysis of the original sample of schools (before replacements)

- We compared the characteristics of the participating schools in the original sample (n = 159) to the whole set of original sample schools (N = 205). This analysis was conducted using the school base weights.
- Analysis of the final sample of participating schools (with replacements)
- We compared the characteristics of the final set of all participating schools (n = 183), to the whole set of schools in the original sample (N = 205). This analysis used the school non-response adjusted weights.

The first stage of analysis investigated potential bias arising from school non-response (non-participation). The second stage of analysis investigated how any potential bias identified in the first stage was mitigated by (or potentially, introduced) by the inclusion of replacement schools and the introduction of non-response adjustments to school weights.

Each school-level analysis was conducted twice; once using the school base weights or non-response adjusted weights, and a second time using the selected weight multiplied by the school-level number of PISA eligible pupils. This gives an estimate in terms of the survey population of 15-year-olds in England for each characteristic.

School-level data from PISA was matched to information contained within the Department for Education (DfE)'s school performance tables. The following matched variables were included in the school-level analyses:

- The arithmetic mean of the school average Attainment 8 score.
- The percentage of pupils who achieved grade 5 or above in both English and maths GCSEs.
- The percentage of pupils in the school that are eligible for special educational needs (SEN) support.
- The percentage of pupils in the school who speak English as their first language
- The percentage of pupils in the school who have been eligible for free school meals (FSM) at any point in the past 6 years.

Two school-level stratification variables - school sex composition (mixed- or single-sex schools) and school attainment bands (1–5, or missing) were also included in these analyses.

A.2.2 Pupil-level analyses

The pupil-level analysis consisted of two stages:

- Analysis of the participating and non-participating pupils
- We compared the distribution of the participating pupils in England (n = 5,619) to the distribution of sampled pupils that did not participate in the study (n = 1,651). Note that this analysis only includes sampled pupils in participating schools, and not

pupils from sampled schools that did not participate in the study. Pupils were weighted by their base student weights.

- Analysis of the final sample of participating pupils using non-response adjusted weights
- We compared the distribution of the participating pupils (n = 5,619) before and after the application of non-response adjusted student weights. Comparisons were also drawn to the total distribution of sampled pupils (N = 7,270).

Pupils in participating schools were compared using matched data contained within England's National Pupil Database (NPD). The main pupil characteristics of interest were:

- Whether the pupil speaks English as a first language or as an additional language
- Whether the pupil has been eligible for free school meals at any point in the previous 6 years
- Whether the pupil has an Education, Health and Care plan (EHCP) or otherwise receives special educational needs support

In addition to these pupil-level characteristics, the analysis included the explicit school-level stratification variables (school type[52] and region in England[53]), as well as the implicit school-level stratification variables (school sex composition and school attainment band), as well as pupil gender.

The pupils who participated in PISA 2025 would have been expected to have taken their key stage 2 assessments in the spring term of the 2020/2021 academic year. However, these assessments were cancelled due to the COVID-19 pandemic. It was therefore not possible to assess whether there was any non-response bias associated with prior attainment.

A.2.3 Statistical analysis

For categorical variables, the distribution of characteristics for participants (either schools or pupils) was compared with the distribution for non-participants. The hypothesis of independence between the characteristic and participation status was tested using a Rao-Scott modified Chi-square statistic, with significance taken at the 5% level. For continuous variables, summary means were calculated and the difference between means was tested using a t-test. The p-values for these tests are presented in the tables. The statistical significance of differences between participants and non-participants is identical to that which would result from comparing participants and the total sample of which they are a subset. The bias and relative bias are also shown in each table. The bias is the difference between the respective estimates for the participants and the total sample. The relative

[52] Academies, independent schools, maintained schools, selective schools
[53] Greater London, South, Midlands, North

bias was calculated as the bias divided by the estimate from the total sample. The relative bias is a measure of the size of the bias compared to the total sample estimate.

We also conducted analyses using linear and logistic regression models to provide a multivariate analysis examining the relationship of participation status to the school average Attainment 8 score per pupil variable while controlling for school characteristics. The school attainment band was omitted from these analyses because it was derived from the school average Attainment 8 score per pupil variable. Logistic regression models were also used to provide a multivariate analysis that examined the relationship of participation status to each of the school-level characteristics.

All statistical analyses were performed in R version 4.4 using the *survey* package to account for the complex sample design. The analysis used the base weights, replicate weights and non-response adjusted weights provided by Westat. The international weighting procedures form non-response adjustment classes by cross-classifying the explicit and implicit stratification variables.

A.3 Comparisons of participating and non-participating schools

This section presents the non-response bias analysis based on the original sample of 205 schools. The distribution of the participating schools from the original sample was compared to the total original sample. School base weights were used for both the total original sample and the participating schools.

A.3.1 Analysis of the original sample (before replacement)

The mean and quartiles of school average Attainment 8 score per pupil from the original sample are given in Table A.1. Table A.2 meanwhile presents these statistics when accounting for school-level enrolment, in order to provide a population-level estimate.

There was no statistically significant relationship between participation status and school average Attainment 8 score before accounting for school enrolment. Participating schools did have a significantly higher average Attainment 8 score than non-participating schools after the application of enrolment adjusted weights, but the magnitude of this relationship was very small, as evident from the very low relative bias estimate.

Appendix Table A.1: Distribution of average Attainment 8 scores of schools in England's original sample for PISA 2025

Average Attainment 8 score per pupil in 2025	All schools in original sample	Participating schools in original sample	Non-participating schools in original sample	Bias	Relative bias	*t*-test *p*-value
Mean	46.2	46.7	44.1	0.6	0.01	0.083
Q1	40.1	40.1	38.4	0.0	0.00	-
Q2	45.3	45.2	45.3	−0.1	−0.00	-
Q3	50.5	51.3	48.9	0.8	0.02	-

Q1 = lower quartile, Q2 = median, Q3 = upper quartile
*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
All original sample schools n = 178, missing = 27. Schools with missing attainment band data were treated as missing in this analysis.
Bias was calculated as the difference between the estimates of the participating schools and the total sample (participating schools in original sample – all schools in original sample). Relative bias was calculated as the bias divided by the estimate from the total sample. The p-values for t-tests were calculated by comparing the participating and non-participating schools. Schools were weighted by their base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Appendix Table A.2: Distribution of average Attainment 8 scores of schools in England's original sample for PISA 2025, weighted by enrolment of 15-year-olds

Statistic	All schools in original sample	Participating schools in original sample	Non-participating schools in original sample	Bias	Relative bias	*t*-test *p*-value
Mean	47.2	47.7	45.2	0.5	0.01	* 0.04
Q1	41.2	41.2	41.4	0.0	0.00	-
Q2	46.1	45.9	46.1	−0.2	−0.00	-
Q3	51.0	51.9	49.2	0.9	0.02	-

Q1 = lower quartile, Q2 = median, Q3 = upper quartile
*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
Sum of weights of all original sample schools = 666681.1, missing proportion = 12.2%. Schools with missing attainment band data were treated as missing in this analysis.
Bias was calculated as the difference between the estimates of the participating schools and the total sample (participating schools in original sample – all schools in original sample). Relative bias was calculated as the bias divided by the estimate from the total sample. The p-values for t-tests were calculated by comparing the participating and non-participating schools. Schools were weighted by their base weights multiplied by the school enrolment of 15-year-old eligible pupils.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Table A.3 and Table A.4 report the proportion of pupils in the original sample schools that achieved at least grade 5 in both their English and maths GCSEs. Both before and after the application of enrolment adjusted weights, there were no significant relationships between participation status and English and maths GCSE performance.

Appendix Table A.3: Distribution of the proportion of pupils achieving grade 5 or above in both English and maths GCSEs in England's original sample for PISA 2025

Statistic	All schools in original sample	Participating schools in original sample	Non-participating schools in original sample	Bias	Relative bias	*t*-test *p*-value
Mean	44.6%	45.5%	41.8%	0.8	0.02	0.23
Q1	31.4%	30.7%	33.7%	−0.7	−0.02	-
Q2	42.8%	42.8%	42.7%	0.0	0.00	-
Q3	52.6%	54.6%	49.3%	2.0	0.04	-

Q1 = lower quartile, Q2 = median, Q3 = upper quartile

*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*

All original sample schools n = 178, missing = 27. Schools with missing attainment band data were treated as missing in this analysis.

Bias was calculated as the difference between the estimates of the participating schools and the total sample (participating schools in original sample – all schools in original sample). Relative bias was calculated as the bias divided by the estimate from the total sample. The p-values for t-tests were calculated by comparing the participating and non-participating schools. Schools were weighted by their base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Appendix Table A.4: Distribution of the proportion of pupils achieving grade 5 or above in both English and maths GCSEs in England's original sample for PISA 2025, weighted by the enrolment of 15-year-olds

Statistic	All schools in original sample	Participating schools in original sample	Non-participating schools in original sample	Bias	Relative bias	*t*-test *p*-value
Mean	46.5%	47.1%	44.2%	0.6	0.01	0.22
Q1	35.0%	33.6%	37.3%	−1.4	-0.04	-
Q2	44.7%	45.2%	44.4%	0.5	0.01	-
Q3	54.6%	56.0%	49.4%	1.4	0.03	-

Q1 = lower quartile, Q2 = median, Q3 = upper quartile
*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
Sum of weights of all original sample schools = 666681.1, missing proportion = 12.2%. Schools with missing attainment band data were treated as missing in this analysis.
Bias was calculated as the difference between the estimates of the participating schools and the total sample (participating schools in original sample – all schools in original sample). Relative bias was calculated as the bias divided by the estimate from the total sample. The p-values for t-tests were calculated by comparing the participating and non-participating schools. Schools were weighted by their base weights multiplied by the school enrolment of 15-year-old eligible pupils.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

The sampling procedure for England's PISA 2025 sample included two implicit school strata – school sex composition (mixed- or single-sex schools) and school attainment bands (bands 1-5, or missing). The proportion of original sample schools of these types are presented in Table A.5 and Table A.6. Note that further breakdowns of the proportions of these in participating and non-participating schools are not provided. There was no significant relationship between school-sex composition and participation status before or after the application of enrolment adjusted weights. However, there were significant differences in the distribution of attainment bands among the participating and non-participating original sample schools, though not after the application of enrolment adjusted weights.

Appendix Table A.5: Percentage distribution of schools in England's original sample for PISA 2022 by implicit stratification variables

Implicit school strata	All original sample schools
Mixed-sex schools	86.8%
Single-sex schools	13.2%
Attainment band 1 (low)	15.9%
Attainment band 2	16.8%
Attainment band 3	16.1%
Attainment band 4	12.9%
Attainment band 5 (high)	14.3%
Attainment band missing	24.1%

All original sample schools n = 205

School gender: $X^2(ndf = 1, ddf = 204), p = .93$

School attainment band: $X^2(ndf = 4, ddf = 714.87), p < .01$

The p-value for the chi-square test was calculated by testing the difference in distributions between the participating schools and non-participating schools from the original sample. Schools were weighted by their school base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Appendix Table A.6: Percentage distribution of schools weighted by enrolled eligible 15-year-old pupils in England's original sample for PISA 2022 by implicit stratification variables

Implicit school strata	All original sample schools
Mixed-sex schools	89.3%
Single-sex schools	10.7%
Attainment band 1 (low)	15.0%
Attainment band 2	17.5%
Attainment band 3	20.5%
Attainment band 4	18.4%
Attainment band 5 (high)	17.9%
Attainment band missing	10.8%

Sum of weights of all original sample schools = 666681.1
School sex composition: X^2(ndf = 1, ddf = 204.00), p = .16
School attainment band: X^2(ndf = 5, ddf = 1018.83), p = .09
The p-value for the chi-square test was calculated by testing the difference in distributions between the participating schools and non-participating schools from the original sample. Schools were weighted by their base weights multiplied by the school enrolment of 15-year-old eligible pupils.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Table A.7 and Table A.8 present the school-level proportion of pupils with special educational needs (SEN), that learn English as an additional language (EAL), and that had been eligible for free school meals (FSM) at any point in the past 6 years. Both before and after the application of enrolment adjusted weights, no significant differences were observed between the participating and non-participating original sample schools.

Appendix Table A.7: School-level characteristics of 15-year-old pupils in England's original sample for PISA 2025

School-level pupil char.	All schools in original sample	Participating schools in original sample	Non-participating schools in original sample	Bias	Relative bias	*t*-test *p*-value
SEN	17.3%	15.0%	22.6%	−2.3	−0.13	0.24
EAL	19.4%	20.3%	15.9%	1.0	0.05	0.27
FSM	23.5%	25.9%	18.0%	2.4	0.10	0.11

*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
SEN and FSM = all original sample schools, n = 202, missing = 3.
EAL = all original sample schools, n = 184, missing = 21.
Bias was calculated as the difference between the estimates of the participating schools and the total sample (participating schools in original sample – all schools in original sample). Relative bias was calculated as the bias divided by the estimate from the total sample. The p-values for t-tests were calculated by comparing the participating and non-participating schools. Schools were weighted by their base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Appendix Table A.8: School-level characteristics of 15-year-old pupils in England's original sample for PISA 2025, weighted by enrolment of 15-year-olds

School-level pupil char.	All schools in original sample	Participating schools in original sample	Non-participating schools in original sample	Bias	Relative bias	*t*-test *p*-value
SEN	14.7%	14.2%	16.3%	-0.5	-0.03	0.05
EAL	19.8%	20.9%	15.6%	1.1	0.05	0.16
FSM	26.6%	26.5%	27.0%	-0.1	-0.00	0.87

*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
Sum of weights of all original sample schools = 666681.1. Missing = 61154.44 for school-level EAL.
Bias was calculated as the difference between the estimates of the participating schools and the total sample (participating schools in original sample – all schools in original sample). Relative bias was calculated as the bias divided by the estimate from the total sample. The p-values for t-tests were calculated by comparing the participating and non-participating schools. Schools were weighted by their base weights multiplied by the school enrolment of 15-year-old eligible pupils.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Linear regression models, presented in Table A.9 and Table A.10, were used to provide multivariate analyses of the relationships of participation status to the school average Attainment 8 score per pupil variable, while controlling for the school-level variables. The

model includes the school average Attainment 8 score per pupil as the dependent variable, and participation status, school-sex composition, and the school-level proportions of SEN, EAL, and FSM pupils as independent variables. After controlling for the effects of the other school-level characteristics, participation status showed no significant relationship with school average Attainment 8 scores.

Appendix Table A.9: Linear regression model of school average Attainment 8 scores in England's original sample for PISA 2025

Variable	Estimate	Standard error	*t*-value	*p*-value
Intercept	61.7	1.84	33.57	*** < 0.001
Non-respondent	-0.7	0.93	−0.80	0.42
Single-sex school	8.8	2.25	3.92	*** < 0.001
Mean percentage of pupils eligible for special educational needs (SEN) support	−0.4	0.09	−4.72	*** < 0.001
Mean percentage of pupils learning English as an additional language (EAL)	0.1	0.03	3.01	** 0.003
Mean percentage of pupils who have been eligible for free school meals (FSM) at any point in the last 6 years	−0.4	0.05	−8.12	*** < 0.001

*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
All original sample schools n = 178, missing = 27. Schools with missing attainment band / SEN / FSM / EAL data were excluded from this analysis.
Schools were weighted by their base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Appendix Table A.10: Linear regression model of school average Attainment 8 scores in England's original sample for PISA 2025, weighted by enrolment of 15-year-olds

Variable	Estimate	Standard error	*t*-value	*p*-value
Intercept	61.4	1.64	37.39	*** < 0.001
Non-respondent	−0.7	0.87	−0.78	0.44
Single-sex school	8.6	2.26	3.80	*** < 0.001
Mean percentage of pupils eligible for special educational needs (SEN) support	−0.4	0.09	−4.09	*** < 0.001
Mean percentage of pupils learning English as an additional language (EAL)	0.1	0.03	3.05	** 0.003
Mean percentage of pupils who have been eligible for free school meals (FSM) at any point in the last 6 years	−0.4	0.04	−8.83	*** < 0.001

*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
Sum of weights of all original sample schools = 666681.1, excluded proportion = 12.2%. Schools with missing attainment band data / SEN / FSM / EAL data were excluded from this analysis.
Schools were weighted by their base weights multiplied by the school enrolment of 15-year-old eligible pupils.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Logistic regression models meanwhile were used to model the probability of participation in PISA in relation to school average Attainment 8 scores per pupil, while controlling for other school-level characteristics. Table A.11 and Table A.12 show that no significant relationships between response status and average pupil achievement were detected before or after the application of enrolment adjusted weights.

Appendix Table A.11: Logistic regression model of school-level response status by school characteristics in England's original sample for PISA 2025

Variable	Estimate	Standard error	*t*-value	*p*-value
Intercept	3.3	2.04	1.60	0.11
School average Attainment 8 score per pupil	−0.02	0.03	−0.69	0.49
Single-sex school	1.3	1.09	1.21	0.23
Mean percentage of pupils eligible for special educational needs (SEN) support	−0.04	0.05	−0.89	0.37
Mean percentage of pupils learning English as an additional language (EAL)	0.02	0.02	0.96	0.34
Mean percentage of pupils who have been eligible for free school meals (FSM) at any point in the last 6 years	−0.02	0.03	−0.83	0.41

*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
All original sample schools n = 178, missing = 27. Schools with missing attainment band / SEN / FSM / EAL data were excluded from this analysis.
Schools were weighted by their base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Appendix Table A.12: Logistic regression model of school-level response status by school characteristics in England's original sample for PISA 2025, weighted by enrolment of 15-year-olds

Variable	Estimate	Standard error	*t*-value	*p*-value
Intercept	3.1	1.96	1.61	0.11
Non-respondent	−0.02	0.03	−0.69	0.49
Single-sex school	1.4	1.10	1.24	0.22
Mean percentage of pupils eligible for special educational needs (SEN) support	−0.03	0.04	−0.66	0.51
Mean percentage of pupils learning English as an additional language (EAL)	0.02	0.01	1.42	0.16
Mean percentage of pupils who have been eligible for free school meals (FSM) at any point in the last 6 years	−0.03	0.02	−1.31	0.19

*Significance thresholds: * = p < 0.05, ** = p < 0.01, *** = p < 0.001*
Sum of weights of all original sample schools = 666681.1, excluded proportion = 12.2%. Schools with missing attainment band data / SEN / FSM / EAL data were excluded from this analysis.
Schools were weighted by their base weights multiplied by the school enrolment of 15-year-old eligible pupils.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

A.3.2 Analysis of the final participating sample (with replacements)

Table A.13 reports the school average Attainment 8 per pupil of the final set of participating schools (including replacements) when compared to the original sample. The final set of participating schools are reported using the school non-response adjusted weights, which attempt to account for the non-response of the non-participating original sample schools. The low relative bias estimates indicate minimal potential of bias related to school-level performance due to non-response.

Appendix Table A.13: Distribution of average Attainment 8 scores of schools in England's final sample for PISA 2025, compared to the original sample

Statistic	All schools in original sample	All participating schools	Bias	Relative bias
Mean	46.2	46.2	0.0	0.00
Q1	40.1	41.0	0.9	0.02
Q2	45.3	44.8	−0.5	-0.01
Q3	50.5	50.2	−0.3	-0.01

Q1 = lower quartile, Q2 = median, Q3 = upper quartile
All original sample schools n = 178, missing = 27.
All participating schools = 163, missing = 20.
Schools with missing attainment band data were treated as missing in this analysis.
Bias was calculated as the difference between the estimates of the original sample and the participating sample (all participating schools – all schools in original sample). Relative bias was calculated as the bias divided by the estimate from the total original sample. Original sample schools were weighted by their base weights. Participating schools were weighted by their non-response adjusted weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Table A.14 reports potential bias relating to school-level proportions of free school meal eligibility in the past six years, and proportions of pupils learning English as an additional language. In both cases, the reported relative bias is low, indicating minimal potential for bias due to non-response.

Appendix Table A.14: School-level characteristics of 15-year-old pupils in England's final sample for PISA 2025 compared to the original sample

School-level pupil characteristic	All schools in original sample	All participating schools	Bias	Relative bias
FSM	23.5%	24.6%	1.1	0.05
EAL	19.4%	19.4%	0.1	0.00

Total original sample schools n = 205. Missing = 3 for school-level Ever6 FSM. Missing = 21 for school-level EAL.
Total participating schools = 183. Missing = 14 for school-level EAL.
Bias was calculated as the difference between the estimates of the original sample and the participating sample (participating schools in original sample – all schools in original sample). Relative bias was calculated as the bias divided by the estimate from the total original sample. Original sample schools were weighted by their base weights. Participating schools were weighted by their non-response adjusted weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

A.3.3 Summary of school-level analysis

This analysis of school-level non-response in England's PISA 2025 sample provides reassurance that the final participating sample of schools was nationally representative.

We found preliminary evidence of a small but statistically significant relationship between school-level average Attainment 8 scores and participation in PISA 2025, when used to provide an estimate in comparison to the national population. However, this relationship was negated after controlling for other school-level characteristics. Additionally, there was no evidence of non-response bias related to any of the other school-level characteristics that were investigated, such as the percentage of pupils eligible for special educational needs support, the percentage of pupils learning English as an additional language, or the percentage of pupils who had been eligible for free school meals at any point within the last 6 years.

A.4 Comparisons of participating and non-participating pupils

This section presents the non-response bias analysis of participating (n = 5,619) and non-participating pupils (n = 1,651) in England's PISA 2025 cohort. In the first stage, pupils were weighted by their student base weights, excluding any non-response adjustments. In the second stage, participating pupils were weighted by their final student weights, which account for pupil-level non-response.

A.4.1 Analysis of pupils (using student base weights)

Table A.15 looks at the pupil-level participation rates in schools by the two explicit sampling strata – school type, and region in England. There was a small but significant relationship between region and pupil-level participation status. A larger, significant relationship was observed however between school type and participation status, with a higher response rate among pupils in selective schools (relative bias = 0.15).

Appendix Table A.15: Percentage distribution of pupils in England's final participating sample for PISA 2025 compared with the original sample by explicit stratification variables

Stratification variable	All sampled pupils	Participating pupils	Non-participating pupils	Bias	Relative bias
School type: academy	70.9%	69.4%	76.0%	-1.5	-0.02
School type: independent	7.7%	7.8%	7.1%	0.2	0.02
School type: maintained	16.7%	17.4%	14.6%	0.6	0.04
School type: selective	4.7%	5.4%	2.4%	0.7	0.15
Region: Greater London	16.1%	16.4%	15.2%	0.3	0.02
Region: South	36.8%	36.0%	39.7%	-0.8	-0.01
Region: Midlands	19.8%	19.6%	20.4%	-0.2	-0.03
Region: North	27.3%	28.1%	24.8%	0.8	0.02

All sampled pupils = 7,270. Participating pupils = 5,619. Non-participating pupils = 1,651.
School type: X^2(ndf = 3, ddf = 19313.455), p < .001
School region: X^2(ndf = 3, ddf = 21205.13), p = .02
The p-value for the chi-square test was calculated by testing the difference in distributions between participating pupils and non-participating pupils. Pupils were weighted by their student base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Table A.16 looks at pupil-level participation rates by the implicit stratification variables – school sex composition, and attainment bands. Pupils in single-sex schools were significantly more likely to participate in PISA. A smaller but still statistically significant relationship was observed for attainment bands, showing lower response rates in attainment band 1 schools, and higher response rates in attainment band 5 schools.

Appendix Table A.16: Percentage distribution of pupils in England's final participating sample for PISA 2025 compared with the original sample by implicit stratification variables

Stratification variable	All sampled pupils	Participating pupils	Non-participating pupils	Bias	Relative bias
Mixed-sex schools	87.7%	86.1%	93.1%	-1.6	-0.02
Single-sex schools	12.3%	13.9%	6.9%	1.6	0.13
Attainment band 1 (low)	14.8%	13.8%	17.8%	-0.9	-0.06
Attainment band 2	17.4%	17.0%	18.8%	-0.4	-0.02
Attainment band 3	17.8%	17.9%	17.2%	0.2	0.01
Attainment band 4	19.0%	19.3%	18.1%	0.3	0.01
Attainment band 5 (high)	20.2%	21.4%	16.2%	1.2	0.06
Attainment band missing	10.8%	10.5%	11.9%	-0.3	-0.03

All sampled pupils = 7,270. Participating pupils = 5,619. Non-participating pupils = 1,651.
School sex composition: $X^2(ndf = 1, ddf = 7269), p < .001$
School attainment band: $X^2(ndf = 5, ddf = 34667.48), p < .001$
The p-value for the chi-square test was calculated by testing the difference in distributions between participating pupils and non-participating pupils. Pupils were weighted by their student base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Table A.17 compares the prevalence of characteristics such as gender and free school meal eligibility between participating and non-participating pupils. Higher participation rates were observed for pupils that spoke English as an additional language, pupils that had not been eligible for free school meals at any point in the past 6 years, and pupils that did not receive SEN-related support.

Pupils could be excluded from participating in PISA 2025 if they had SEN that resulted in them being unable to take the test, or they had insufficient English language experience. Participating pupils who are ineligible due to these exclusion criteria have been identified and were excluded from the analysis. However, it is not possible to identify further pupils who are ineligible if they did not participate which may contribute to the underrepresentation of pupils with SEN and pupils who do not have English as their first language in the final participating sample.

Appendix Table A.17: Percentage distribution of pupils in England's final participating sample for PISA 2025 compared with the original sample by pupil characteristics

Pupil characteristic	Participating pupils	Non-participating pupils
Pupil gender: girl	46.7%	52.3%
Pupil gender: boy	53.2%	46.7%
English spoken as a first language	76.8%	84.9%
English not spoken as a first language	23.2%	15.1%
Has been eligible for free school meals	23.8%	39.6%
Has not been eligible for free school meals	76.2%	60.4%
No support for SEN	87.9%	67.9%
Receives SEN support	10.7%	25.0%
Has an Education, Health and Care plan	1.4%	7.1%

Participating pupils = 5,209. Non-participating pupils = 1,651.
NPD matches were not possible for 410 participating pupils and are thus not included in this table.
Pupils were weighted by their student base weights.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

A.4.2 Analysis of pupils (using non-response adjusted weights)

The final three analyses looked at the application of non-response adjusted weights for participating pupils. Prior to the application of non-response adjustments, a significant relationship was observed between the explicit sampling strata and pupil participation rates. For example, there was a high relative bias in favour of pupils attending selective schools. However, as shown in Table A.18, the application of non-response adjusted weights reduced the representation of these pupils in the final participating cohort that more closely mirrored the distribution among all sampled pupils. Similar adjustments were observed in relation to the implicit sampling strata in Table A.19. Table A.20 meanwhile shows that the application of non-response adjustments had relatively little impact on the distributions of pupil-level characteristics, other than a slight increase in girl pupil representation.

Appendix Table A.18: Percentage distribution of pupils in England's final participating sample for PISA 2025 by explicit stratification variables, before and after adjusting for pupil non-response

Stratification variable	All sampled pupils	Participating pupils (student base weights)	Participating pupils (non-response adjusted student weights)
School type: academy	70.9%	69.4%	70.8%
School type: independent	7.7%	7.8%	7.2%
School type: maintained	16.7%	17.4%	17.6%
School type: selective	4.7%	5.4%	4.5%
Region: Greater London	16.1%	16.4%	14.9%
Region: South	36.8%	36.0%	36.8%
Region: Midlands	19.8%	19.6%	20.7%
Region: North	27.3%	28.1%	27.6%

All sampled pupils = 7,270. Participating pupils = 5,619.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Appendix Table A.19: Percentage distribution of pupils in England's final participating sample for PISA 2025 by implicit stratification variables, before and after adjusting for pupil non-response

Stratification variable	All sampled pupils	Participating pupils (student base weights)	Participating pupils (non-response adjusted student weights)
Mixed-sex schools	87.7%	86.1%	88.7%
Single-sex schools	12.3%	13.9%	11.3%
Attainment band 1 (low)	14.8%	13.8%	14.5%
Attainment band 2	17.4%	17.0%	17.5%
Attainment band 3	17.8%	17.9%	19.7%
Attainment band 4	19.0%	19.3%	18.8%
Attainment band 5 (high)	20.2%	21.4%	19.6%
Attainment band missing	10.8%	10.5%	9.7%

All sampled pupils = 7,270. Participating pupils = 5,619.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

Appendix Table A.20: Percentage distribution of pupils in England's final participating sample for PISA 2025 by pupil characteristics, before and after adjusting for pupil non-response

Pupil characteristic	Participating pupils (student base weights)	Participating pupils (non-response adjusted student weights)
Pupil gender: girl	46.7%	48.1%
Pupil gender: boy	53.2%	51.9%
English spoken as a first language	76.8%	77.1%
English not spoken as a first language	23.2%	22.9%
Has been eligible for free school meals	23.8%	23.8%
Has not been eligible for free school meals	76.2%	76.2%
No support for SEN	87.9%	87.8%
Receives SEN support	10.7%	10.8%
Has an Education, Health and Care plan	1.4%	1.5%

Participating pupils = 5,209. NPD matches were not possible for 410 participating pupils and are thus not included in this table.

Source: OECD, PISA 2025, with data matched to the DfE National Pupil Database (NPD)

A.4.3 Summary of pupil-level analysis

Overall, this analysis provides reassurance that the final sample of pupils participating in PISA 2025 was reasonably representative of the study population of 15-year-olds in relation to school type, region, school sex composition and school attainment band, after non-response adjustments were made. There was, however, evidence of potential bias arising from pupil-level characteristics, such as free school meal eligibility, EAL status, and SEN support eligibility. These findings mirror those reported in the non-response bias analysis of England's PISA 2022 report (Ingram et al., 2023). However, in this non-response bias analysis, it was not possible to investigate response bias in relation to pupil-level attainment, as, due to COVID-related disruptions to education, this cohort of pupils did not sit key stage 2 assessments.

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