

Programme for International Student Assessment (PISA) 2009

The Westminster School – Dubai

School details

Location: **Al Qusais First**

PISA Achievement in Reading: **Level 3**

Type: **Private**

PISA Achievement in Mathematics: **Level 2**

Open since: **1988**

PISA Achievement in Science: **Level 2**

Curriculum: **UK**

Number of Students Assessed: **95**

What is PISA?

For the first time in May 2009, a representative sample of your 15-year-old students joined 5,620 others around Dubai to participate in a global assessment known as the Programme for International Student Assessment (PISA). On average, 15-year-olds in Dubai were found to be better prepared to use their skills than their MENA counterparts but were below the average of Organization for Economic Co-operation and Development (OECD) Countries. This report summarises their skills and the main factors associated with higher performance. KHDA is committed to using international assessments to inform policy and improve the quality of education in Dubai.

Conducted every three years since 2000, PISA has been used by policymakers around the world to assess students' readiness for life by age 15. Its uniqueness derives from the assessment of functional literacy skills needed for life.

PISA assesses three domains as detailed below. Each cycle highlights one specific domain with detailed information on student skills and attitudes plus overall skill scores for the other two domains. In 2009, the focus was on Reading which includes three sub-domains.

1. **Reading Literacy:** Access and retrieval of information, integration and interpretation from various texts, reflection and evaluation of content and form.
 - **Access & Retrieve:** extraction of information from continuous and non-continuous text.
 - **Integrate and Interpret:** interpretive analysis of relationships from multiple texts.
 - **Reflect and Evaluate:** reflection on the content, form and purpose of a text.
2. **Mathematical Literacy:** Replications, connections and reflections on quantity, space, change and uncertainty.
3. **Scientific Literacy:** Identifying scientific and environmental issues, understanding scientific phenomena, and using scientific processes and evidence.

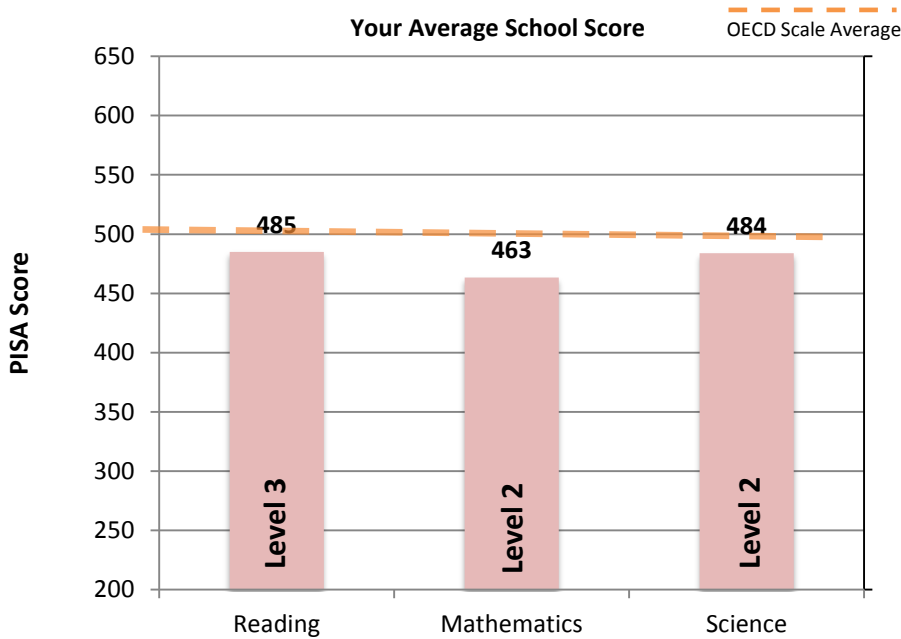
Who Participated in PISA 2009?

The fourth PISA cycle in 2009 saw the participation of 65 countries with a primary focus on Reading. Stratified random sampling in Dubai resulted in a representative sample comprised of: **5,620 Students, 134 Schools, and 9 Curricula**. The statistical methods used to construct the sample ensure findings reflect the entire population of 15-year-olds in Dubai. Other Arab participants in PISA 2009 were: Tunisia, Jordan and Qatar – the first joining PISA since 2003 while the others followed in 2006.

How Can PISA Results Be Interpreted?

A scaled and constant average of 500 for members of (OECD) and a standard deviation of 100 in each domain are used to benchmark performance and track progress over time. Point scores for each domain can be compared across countries or against the OECD scaled average. Furthermore, proficiency levels map point scores onto a scale of essential skills. Ranked in ascending order from Level 1 to Level 6, the OECD defines Level 3 as the minimum proficiency level required to successfully function in today's knowledge economy. Students at or above Level 5 are classified as high-achievers by international standards while those at or below Level 1 are at-risk of having inadequate preparedness for life.

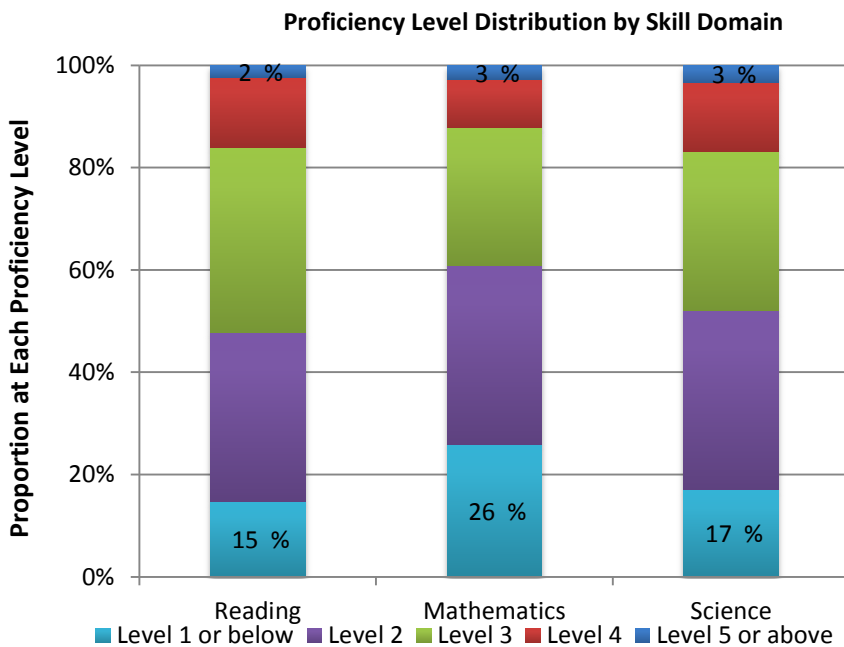
How Skilled Are Your Students?



Reading Sub-domain Scores	
Access & Retrieve	490
Integrate & Interpret	486
Reflect & Evaluate	490

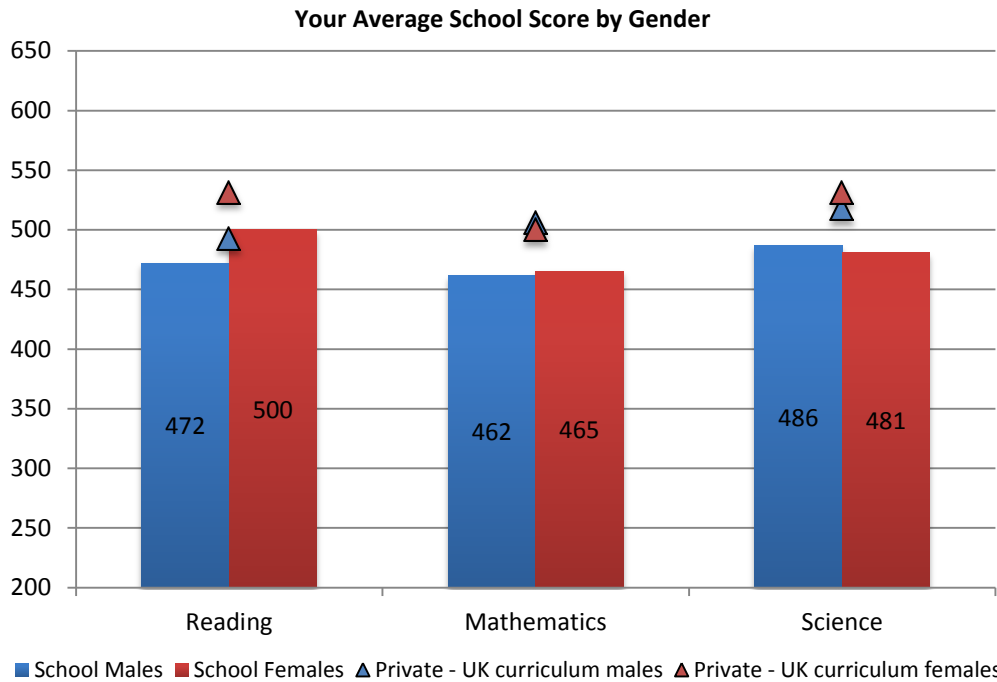
Your students' results in **Mathematics (463)** and **Science (484)** place their average proficiency at **Level 2**. Their score of **485** in **Reading** maps to **Level 3**. Descriptions of the proficiency levels for each domain can be found in the appendix.

How Do Skills Vary Within Your School?



3% of students are **high-achievers** in **Mathematics** and **Science** compared to **2%** in **Reading**. **15%** of your students would be classified as **at-risk** based on their **Reading** skills while this represents **26%** of students in **Mathematics** and **17%** in **Science**. The **majority** of your students are at **Level 2 or below** in **Mathematics** and **Science** and **Level 3 or below** in **Reading**.

The Gender Differential



Females outperformed males in **Reading** and, to a **lesser extent**, in **Mathematics**. Males were more proficient in **Science**. **Gender differentials** were **lower** than the **average gender** difference in all UK curriculum schools in Dubai.

°This analysis compares your students to similar peers of the opposite gender studying the same curriculum in Dubai

How Do Your 15-year-old Students Compare to Others in Dubai?

Compared to		Reading (485)	Mathematics (463)	Science (484)
All Participating Schools in Dubai	Average Score	459	453	466
	Proficiency Level	Level 2	Level 2	Level 2
	Your relative percentile	71 st	70 th	69 th
Schools teaching the Privet – UK curriculum	Average Score	510	503	524
	Proficiency Level	Level 3	Level 3	Level 3
	Your relative percentile	32 nd	32 nd	29 th
Schools with Similar Student Background [^]	Average Score	478	471	485
	Proficiency Level	Level 2	Level 2	Level 3
	Your relative percentile	75 th	75 th	75 th

* On average, students at your school scored at, **above** or **below** these categories

- Percentile rank: The proportion of schools in this category that received an average skill score below that of your school average. For example, the 40th percentile in Dubai indicates 40% of schools in Dubai attained a PISA score below your students' average.

[^]The PISA Index of Socio-Economic and Cultural Status has been used to identify schools with students of similar backgrounds.

Factors Affecting Skills in Your School

Questionnaires conducted through PISA ask students to provide background information about their home, school and learning environment. Principals additionally answer a range of questions relating to the school's instruction, curriculum and assessment policies. By analysing these factors, the determinants of high skills can be established. The following table identifies the areas most related to raising student skills and compares the survey responses of your school with the average for all Dubai schools.

Factors Associated with Student Proficiency		
Student Factors	Retention	A below-average proportion of students in your school (11%) have repeated at least one year by age 15.
	Studying habits	An above-average proportion of your students (11%) reported never relating information they study with real life situations.
	Metacognitive skills	Metacognitive reading skills in summarising, understanding and remembering text were higher than average amongst students in your school placing them in the 76th percentile
School Factors	Student relations	Teacher-student relations as measured by student perception of their teachers' support, fairness and empathy skills were found to be lower than the Dubai average, placing them at the 7th percentile
	Classroom management	Students at your school reported statistically similar obstacles to learning as a result of noise, disorder and other disciplinary issues when compared to the Dubai average, placing your disciplinary climate at the 49th percentile
	Preparation for life	A greater proportion of your students (43%), compared to the Dubai average, reported school has done little to prepare them for adult life.
Home Factors	Out-of-school tuition	Comparatively more of your students (67%) are enrolled in out-of-school enrichment lessons.
	Reading for enjoyment	A greater proportion of your students (57%), compared to the Dubai average, reported spending 30 minutes or less per day reading for enjoyment.
	Reading for learning	Compared to the Dubai average, your students reported less frequently reading fiction, interpreting character interactions and explaining outcomes as part of reading for school, placing their proficiency in interpreting literary texts at the 8th percentile

Current state linked to **higher/ lower** skills amongst your students. Statements in **black** signify the category in your school **equals the Dubai average**.

How Can Information from PISA be Used for Improvement?

This report aims to provide you, the educators, with information regarding your students' performance on a globally comparable assessment. Our first participation in PISA provides us with a baseline and unique insight into the determinants of our students' proficiency. For more analysis of PISA results in Dubai, and the research KHDA is undertaking, please visit www.khda.gov.ae

Appendix

Description of Reading Proficiency Levels

Level 6 708	Tasks at this level typically require the reader to make multiple inferences, comparisons and contrasts that are both detailed and precise. They require demonstration of a full and detailed understanding of one or more texts and may involve integrating information from more than one text. Tasks may require the reader to deal with unfamiliar ideas, in the presence of prominent competing information, and to generate abstract categories for interpretations.
Level 5 626	Tasks at this level that involve retrieving information require the reader to locate and organise several pieces of deeply embedded information, inferring which information in the text is relevant. Reflective tasks require critical evaluation or hypothesis, drawing on specialised knowledge. Both interpretative and reflective tasks require a full and detailed understanding of a text whose content or form is unfamiliar. For all aspects of reading, tasks at this level typically involve dealing with concepts that are contrary to expectations.
Level 4 553	Tasks at this level that involve retrieving information require the reader to locate and organise several pieces of embedded information. Some tasks at this level require interpreting the meaning of nuances of language in a section of text by taking into account the text as a whole. Other interpretative tasks require understanding and applying categories in an unfamiliar context. Reflective tasks at this level require readers to use formal or public knowledge to hypothesise about or critically evaluate a text. Readers must demonstrate an accurate understanding of long or complex texts whose content or form may be unfamiliar.
Level 3 480	Tasks at this level require the reader to locate, and in some cases recognise the relationship between, several pieces of information that must meet multiple conditions. Interpretative tasks at this level require the reader to integrate several parts of a text in order to identify a main idea, understand a relationship or construe the meaning of a word or phrase. They need to take into account many features in comparing, contrasting or categorising. Often the required information is not prominent or there is much competing information; or there are other text obstacles, such as ideas that are contrary to expectation or negatively worded.
Level 2 407	Some tasks at this level require the reader to locate one or more pieces of information, which may need to be inferred and may need to meet several conditions. Others require recognising the main idea in a text, understanding relationships, or construing meaning within a limited part of the text when the information is not prominent and the reader must make low level inferences. Tasks at this level may involve comparisons or contrasts based on a single feature in the text.
Level 1a 335	Tasks at this level require the reader to locate one or more independent pieces of explicitly stated information; to recognise the main theme or author's purpose in a text about a familiar topic, or to make a simple connection between information in the text and common, everyday knowledge. Typically the required information in the text is prominent and there is little, if any, competing information. The reader is explicitly directed to consider relevant factors in the task and in the text.
Level 1b 262	Tasks at this level require the reader to locate a single piece of explicitly stated information in a prominent position in a short, syntactically simple text with a familiar context and text type, such as a narrative or a simple list. The text typically provides support to the reader, such as repetition of information, pictures or familiar symbols. There is minimal competing information. In tasks requiring interpretation the reader may need to make simple connections between adjacent pieces of information.

Description of Mathematics Proficiency Levels

Level 6 669	<p>At Level 6 students can conceptualise, generalise, and utilise information based on their investigations and modelling of complex problem situations. They can link different information sources and representations and flexibly translate among them. These students can apply this insight and understandings along with a mastery of symbolic and formal mathematical operations and relationships to develop new approaches and strategies for attacking novel situations. Students at this level can formulate and precisely communicate their actions and reflections regarding their findings, interpretations, arguments, and the appropriateness of these to the original situations.</p>
Level 5 607	<p>At Level 5 students can develop and work with models for complex situations, identifying constraints and specifying assumptions. They can select, compare, and evaluate appropriate problem solving strategies for dealing with complex problems related to these models. Students at this level can work strategically using broad, well-developed thinking and reasoning skills, appropriate linked representations, symbolic and formal characterisations, and insight pertaining to these situations. They can reflect on their actions and formulate and communicate their interpretations and reasoning.</p>
Level 4 545	<p>At Level 4 students can work effectively with explicit models for complex concrete situations that may involve constraints or call for making assumptions. They can select and integrate different representations, including symbolic ones, linking them directly to aspects of real-world situations. Students at this level can utilise well-developed skills and reason flexibly, with some insight, in these contexts. They can construct and communicate explanations and arguments based on their interpretations, arguments, and actions.</p>
Level 3 482	<p>At Level 3 students can execute clearly described procedures, including those that require sequential decisions. They can select and apply simple problem solving strategies. Students at this level can interpret and use representations based on different information sources and reason directly from them. They can develop short communications reporting their interpretations, results and reasoning.</p>
Level 2 420	<p>At Level 2 students can interpret and recognise situations in contexts that require no more than direct inference. They can extract relevant information from a single source and make use of a single representational mode. Students at this level can employ basic algorithms, formulae, procedures, or conventions. They are capable of direct reasoning and making literal interpretations of the results.</p>
Level 1 358	<p>At Level 1 students can answer questions involving familiar contexts where all relevant information is present and the questions are clearly defined. They are able to identify information and to carry out routine procedures according to direct instructions in explicit situations. They can perform actions that are obvious and follow immediately from the given stimuli.</p>

Description of Science Proficiency Levels

Level 6 708	At Level 6, students can consistently identify, explain and apply scientific knowledge and knowledge about science in a variety of complex life situations. They can link different information sources and explanations and use evidence from those sources to justify decisions. They clearly and consistently demonstrate advanced scientific thinking and reasoning, and they use their scientific understanding in support of solutions to unfamiliar scientific and technological situations. Students at this level can use scientific knowledge and develop arguments in support of recommendations and decisions that centre on personal, social or global situations.
Level 5 633	At Level 5, students can identify the scientific components of many complex life situations, apply both scientific concepts and knowledge about science to these situations, and can compare, select and evaluate appropriate scientific evidence for responding to life situations. Students at this level can use well-developed inquiry abilities, link knowledge appropriately and bring critical insights to situations. They can construct explanations based on evidence and arguments based on their critical analysis.
Level 4 559	At Level 4, students can work effectively with situations and issues that may involve explicit phenomena requiring them to make inferences about the role of science or technology. They can select and integrate explanations from different disciplines of science or technology and link those explanations directly to aspects of life situations. Students at this level can reflect on their actions and they can communicate decisions using scientific knowledge and evidence.
Level 3 484	At Level 3, students can identify clearly described scientific issues in a range of contexts. They can select facts and knowledge to explain phenomena and apply simple models or inquiry strategies. Students at this level can interpret and use scientific concepts from different disciplines and can apply them directly. They can develop short statements using facts and make decisions based on scientific knowledge.
Level 2 409	At Level 2, students have adequate scientific knowledge to provide possible explanations in familiar contexts or draw conclusions based on simple investigations. They are capable of direct reasoning and making literal interpretations of the results of scientific inquiry or technological problem solving.
Level 1 335	At Level 1, students have such a limited scientific knowledge that it can only be applied to a few, familiar situations. They can present scientific explanations that are obvious and follow explicitly from given evidence.