



UNSW Global

30+
YEARS

LEADERSHIP IN
INTERNATIONAL
ASSESSMENT

20
PLUS

PARTICIPATING
COUNTRIES

14.5K
PLUS

SCHOOLS HAVE
PARTICIPATED

8.9M
PLUS

STUDENTS'
POTENTIAL
UNLOCKED

UNLOCK THE
POTENTIAL OF
STUDENTS &
THE POWER
OF TEACHING

ICAS MARKS ITS
PRESENCE IN THE
INDIAN SUBCONTINENT



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ICAS IS THE MOST COMPREHENSIVE EDUCATIONAL ASSESSMENT PROGRAM AVAILABLE

As an annual benchmark of learning progress, ICAS puts powerful knowledge in your hands.

HOW IS ICAS DIFFERENT?

ICAS does not assess how well students remember the content they have been taught; it assesses the higher order thinking and problem-solving skills needed for success in:

- English
- Mathematics
- Science and
- Digital Technologies.

ICAS is developed annually by a team of highly experienced assessment experts and psychometricians, with rigorous reviews at each stage of construction. Subject matter experts develop new questions each year, drawing on their in-depth understanding of the way students learn.

WHY IS ICAS BEING USED BY SCHOOLS GLOBALLY?

Educators in over 20 countries are tapping into ICAS to enhance student and school performance.

They are using their ICAS data to:

- Track individual and cohort progress as they move through school, and compare them to regional performance
- Motivate students with this information
- Identify student and cohort strengths and weaknesses in specific skill areas, which can drive better targeting of teaching
- Reflect on aspects of each student's capability and gain independent, external validation of internal assessment
- Identify students who complete school-based assessments well, but appear to find exam scenarios challenging
- Enhance curriculum content
- Identify professional development needs.

BUILDING THE SKILLS NEEDED FOR A FAST-PACED FUTURE

ICAS is brought to you by UNSW Global, a world leader in the provision of education, assessment and expertise services and wholly owned by UNSW Australia (The University of New South Wales)—one of Australia's leading research and teaching universities, ranked in the top 50 universities worldwide.

UNSW Global has operated in the field of assessment and measurement for over 35 years, developing and providing evidence-based assessment products and services that promote learning and educational performance.

UNSW Global has continued to develop and refine ICAS from its original offering. ICAS has grown from being a student only assessment program to a strategic, data-driven program for students, parents, educators and governments.

ICAS IS OFFERED IN



ENGLISH
CLASSES 2 TO 12



SCIENCE
CLASSES 2 TO 12



MATHEMATICS
CLASSES 2 TO 12



DIGITAL TECHNOLOGIES
CLASSES 3 TO 10

ASSESSMENT DETAILS

Dates:

Friday, 27th September 2019 – Science & Mathematics

Saturday, 28th September 2019 – English & Digital Technologies

FEES INFORMATION

1 Subject	₹400/-
2 Subjects	₹700/-
3 Subjects	₹900/-
4 Subjects	₹1000/-

ENABLE SCHOOLS & TEACHERS

ICAS's rich diagnostic reports, given to students and schools, are its unique advantage, made ever more valuable because of ICAS's long history of data collection.

For schools, ICAS provides powerful insights into:

- Where individual students are succeeding and where they may need extra focus
- Performances across year levels, classes and other subgroups
- Strengths and weaknesses at a whole school, grade and class level
- Student performance in comparison to peers regionally and internationally
- Student development over time.

Innovative schools are triangulating ICAS data with other indicators to obtain a full picture of student capability and development. They are also using ICAS to validate other assessments, develop tailored learning programs, enhance curriculum content, recognise and reward engagement in learning and identify professional development needs.

For students and parents, individualised paper and online reports provide a detailed picture of student strengths and weaknesses. Students are able to see the answer they gave to each question, as well as the correct answer; their performance in the different skill areas assessed; and their comparative performance regionally.

ENABLE PARENTS & STUDENTS

ICAS's rich diagnostic reports, given to both students and schools, are its unique advantage, made ever more valuable because of ICAS's long history of data collection.

ICAS reports enable you to:

- Pinpoint your child's strengths—which skills they excel in
- Identify skill areas to be worked on, either for remediation or skill development
- See the answer your child gave to each question, as well as the correct answer
- Track educational performance as your child moves through school
- Obtain an independent external view of how your child is performing
- See your child's comparative performance regionally.

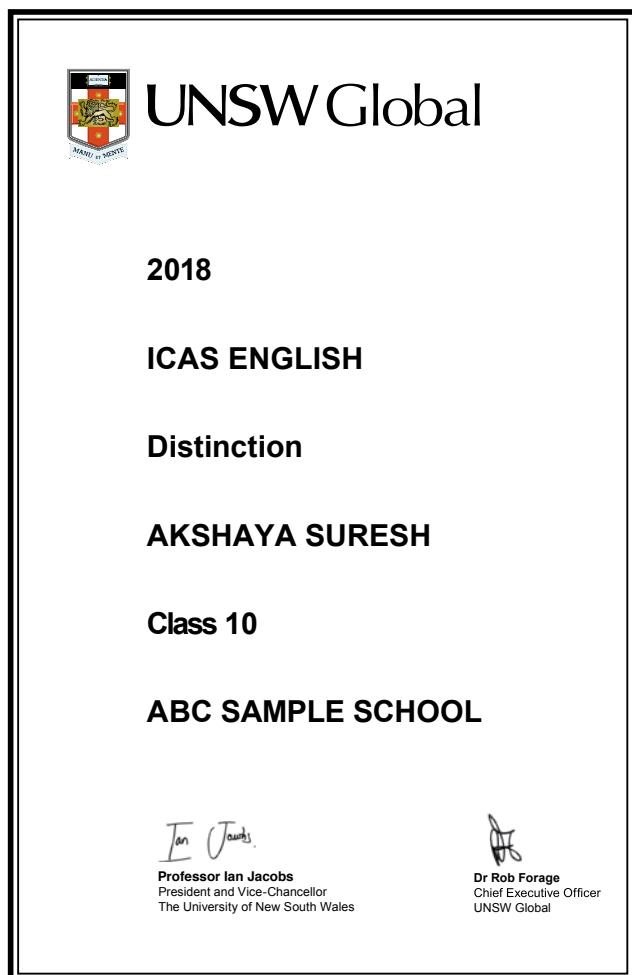
UNSW Global ICAS certificates also recognise student achievement.

"ICAS has enabled us to get a true measure, and external validation, of how students are progressing year-on-year. With ICAS we are able to measure their individual growth and also the growth of the school and school improvement."

Paul Gavin

Strategic Planning Manager
Sarah Redfern High School, Australia

AWARDS AND WORKSHOP



CRITERIA FOR ICAS CERTIFICATE

Every student receives an ICAS certificate in one of the following categories:

AWARD	IN EACH CLASS
High Distinction	The top 1% of participants
Distinction	The next 10% of participants
Credit	The next 25% of participants
Merit	The next 10% of participants
Participation	For all remaining participants
Principal's Award	Principals may wish to award this certificate to a student who has made progress that may not have been recognised otherwise. The awarding of Certificates is entirely at the discretion of schools.

ASSESSMENT WORKSHOP

Schools are provided with "Data to direction" an assessment interpretation guide that helps them get the best out of the diagnostic reports. Macmillan conducts post assessment workshops and sessions for schools with high student enrollment after the assessment results each year. The workshops assist teachers to understand the key indicators and further analyse results to develop renewed teaching strategies.

ENROLL YOUR SCHOOL FOR A SPECIAL ICAS WORKSHOP

icasonline@macmillaneducation.com

SAMPLE ASSESSMENT REPORTS

ICAS School Report that contains a detailed breakdown of students' responses to individual questions and identifies strength and weakness in various skill areas. The school's overall results are presented as a comparison against all other schools that participated in the region.

Each student receives a detailed diagnostic report which provides a comprehensive analysis of the student's performance in the school and the region.

Sample school report

This section provides a class level summary and compares the students' performance in each of the skill areas assessed with the performance of all students who participated from the region.

1

Standard deviation is a measure of the spread of students' scores. For a normal distribution, 68% of all scores lie within the range average plus or minus the standard deviation.

In this case, 68% of the school's scores fall within the range 21.9 ($27.6 - 5.7 = 21.9$) to 33.3 ($27.6 + 5.7 = 33.3$), while for the region 68% of all scores fall within the range 17.3 to 32.3.

2

This table compares the performance, in the **Investigating** skill area, of students from this school with the performance of students from the region. The average score for this school (3.9) was slightly higher than that for the region (3.4).

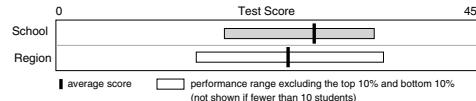
3

This graph compares the performance, in the **Investigating** skill area, of students from this school with the performance of students from the region. The average score for this school is slightly higher than for the region. However, looking at the spread of scores, the difference between the average scores is probably too small to be statistically significant.

Section 2.1 Class 7 2017 Science - Class 7 - Summary

The graph below shows the performance of your Class 7 students in comparison to Class 7 students in Australia, expressed in raw scores.

1	School	Region
Number Of Questions	45	45
Average Score	27.6	24.8
Standard Deviation	5.7	7.5

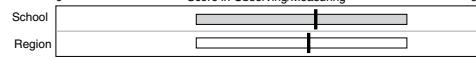


Section 2.2 Class 7 2017 Science - Class 7 - Analysis by Skill Area

The graphs below show the performance of your Class 7 students in each of the different areas assessed.

Observing/Measuring

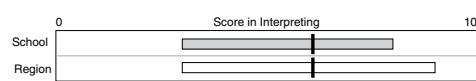
	School	Region
Number Of Questions	6	6
Average Score	3.7	3.6



Questions 1, 2, 5, 30, 36, 41

Interpreting

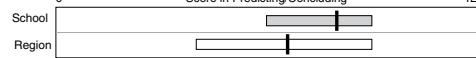
	School	Region
Number Of Questions	10	10
Average Score	6.1	6.1



Questions 6, 7, 8, 10, 11, 12, 14, 20, 32, 43

Predicting/Concluding

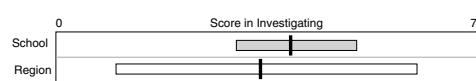
	School	Region
Number Of Questions	12	12
Average Score	8.0	6.6



Questions 4, 9, 13, 19, 21, 25, 28, 31, 33, 37, 40, 42

Investigating

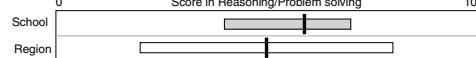
2	School	Region
Number Of Questions	7	7
Average Score	3.9	3.4



Questions 3, 15, 16, 17, 22, 24, 34

Reasoning/Problem solving

	School	Region
Number Of Questions	10	10
Average Score	5.9	5.0



Questions 18, 23, 26, 27, 29, 35, 38, 39, 44, 45

DID YOU KNOW?

Skill area data can be very useful for schools to help identify strengths and areas for development at a class, grade and whole school level.

USE THE ICAS SCHOOL PORTAL

In the school portal you can create custom groups of students (e.g. boys, girls, English Second Language, Class A/Class B etc) and compare their performance to the school and the region.

SUBJECT AREAS & SKILLS ASSESSED



ENGLISH

SKILL AREAS

Students are required to locate, identify, interpret, infer and synthesise information in and about texts. The skill areas assessed are:

- **Reading for meaning in factual texts**
- **Reading for meaning in literary texts**
- **Textual devices, syntax and vocabulary.**

CONTENT

Students read a variety of texts which narrate, describe, explain, argue, persuade and review. These include extracts from picture books, novels, poems, play scripts, transcripts of interviews, letters, diary entries, advertisements, web pages, feature articles, opinion pieces and comics. These texts cover a range of topics and may include tables, diagrams, maps and other visual information.

The texts increase in complexity with each assessment, moving from simple texts dealing with familiar subjects and topics to complex texts incorporating abstract concepts and sophisticated language structures.

ASSESSMENT STRUCTURE

CLASS	QUESTION BREAKDOWN	DURATION
2	30 multiple choice	40 minutes
3 & 4	35 multiple choice	45 minutes
5 & 6	40 multiple choice	50 minutes
7 & 8	45 multiple choice	55 minutes
9 to 12	50 multiple choice	1 hour



MATHEMATICS

SKILL AREAS

Students are assessed across five key skill areas:

- **Algebra and patterns:** Involves patterns of numbers, relationships between numbers and the use of symbols to stand for unknown or variable numbers
- **Chance and data:** Involves mathematical treatment of data and statistics
- **Measures and units:** Involves properties of the physical world that can be measured, the units used to measure them and the process of measurement
- **Number and arithmetic:** Involves types of numbers, their properties and number operations. The strand has strong links with measures and units, algebra and patterns and chance and data. It also has some links with space and geometry
- **Space and geometry:** Involves the properties of two-dimensional and three-dimensional space.

CONTENT

ICAS questions require students to make sense of mathematical concepts in everyday situations. Content differs across the papers to ensure they are appropriate for year levels.

Class 2, 3, 4, 5, 6 and 7:

- Calculators are not permitted.
- Formal algebra is not tested. The emphasis is put on pattern, structure and puzzles.
- Formal geometry is not tested (except for a few items in Paper E). The emphasis is on spatial skills.

Classss 8, 9, 10, 11 and 12:

- Calculators are required.
- Formal algebra is tested. Students are expected to be familiar with some conventions of algebra.
- Formal geometry is tested. Students are expected to be familiar with some conventions of geometry.

CLASS	QUESTION BREAKDOWN	DURATION
2	30 multiple choice	35 minutes
3 to 5	35 multiple choice	45 minutes
6 to 12	35 multiple choice	1 hour

SKILL AREAS

Students are assessed across the key scientific areas of:

- **Observing and measuring:** Noting and measuring features of items and phenomena
- **Interpreting data:** Interpreting diagrams, tables and graphs
- **Applying data:** Including inferring, predicting and concluding
- **Investigating:** Experimental design, use of controls and notion of ‘fair test’
- **Higher-order skills:** Including reasoning and problem-solving.

CONTENT

ICAS Science does not test knowledge of science although the questions may assume some knowledge appropriate to the students’ age. All the information that the students need to respond to the question is provided in the stimulus.

The papers cover content on:

- Earth and Beyond (incorporating the Earth Sciences and Astronomy)
- Energy and Change (incorporating Physics)
- Life and Living (incorporating Biology and Ecology)
- Natural and Processed Materials (incorporating Chemistry).

CLASS	QUESTION BREAKDOWN	DURATION
2 to 4	30 multiple choice	45 minutes
5 & 6	35 multiple choice	55 minutes
7 to 12	40 multiple choice	1 hour



DIGITAL TECHNOLOGIES

SKILL AREAS

Students are assessed across the skills and knowledge areas of:

- **Databases**
- **Graphics and multimedia**
- **Internet use and email programs**
- **Networks and other communications systems**
- **Operating systems and computer hardware**
- **Programming**
- **Spreadsheets**
- **Word processing.**

CONTENT

The papers cover content on:

- Digital systems including hardware and software, operating systems, cloud computing and data representation
- Basic and advanced operations and formatting in word processing, use of tables, style sheets, animations and referencing
- Presentations, integrated multimedia and data visualisation
- Use of search engines, emails, web design, social media, online collaborative projects and the application of social and ethical protocols and practices in the use of digital technologies
- Use of operations to maintain and manage data and databases
- Programming principles and concepts including block-based coding, flowcharts, sequence, loops, pseudocode, algorithms and desk checking.

CLASS	QUESTION BREAKDOWN	DURATION
3 & 4	30 multiple choice	30 minutes
5 & 6	30 multiple choice	35 minutes
7 & 8	35 multiple choice	40 minutes
9 & 10	40 multiple choice	45 minutes

FOR FURTHER INFORMATION, PLEASE CONTACT THE NEAREST MACMILLAN OFFICE

India

North (Noida)

D-90, Sector-2, Noida, Uttar Pradesh-201301

T: +91 120 4000 100

East (Kolkata)

Unit No. 302, L&T Chambers (3rd Floor),
16 Camac Street, Kolkata-700017

T: +91 033 2283 4481 / 82 / 83

West (Mumbai)

404, "Antariksh", 4th Floor, Makwana Road,
off Marol Maroshi Road, Andheri (East),
Mumbai-400059

T: +91 022 4215 2803

South (Chennai)

21 Patullos Road, Chennai-600002

T: +91 044 3091 5100

Neighbouring Countries

Nepal

Sanjeev Dhondiyal

M: +91 95192 15888

T: +91 522 2343055/3065

E: sanjeev.dhondiyal@macmillaneducation.com

Sri Lanka

T. Andrus

M: +91 98414 39397

T: +91 44 3091 5100

E: t.andrus@macmillaneducation.com

Bhutan & Bangladesh

Nelson Chowdhury

M: +91 98742 36169

T: +91 33 2283 4481

E: nelson.chowdhury@macmillaneducation.com

LEARN MORE

T: +91 8130588966, dial 6 for ICAS

E: icasonline@macmillaneducation.com

W: www.macmillaneducation.in/icas