

2023 National Assessment Program Science Literacy Main Study

Information for schools

In 2023, a sample of Year 6 and Year 10 students from across Australia will take part in a national online main study in science literacy.

What is the NAP – Science Literacy main study?

The National Assessment Program (NAP) is designed to measure student progress towards important educational outcomes.

The NAP sample assessments are a suite of tests, taking place in a 3-yearly cycle, which monitors student achievement in science literacy, ICT literacy, and civics and citizenship.

In an increasingly technological environment, it is important that students understand natural phenomena and know how to apply scientific method to make sense of what they experience.

When students interpret information on scientific issues, ask questions, conduct investigations, make decisions and communicate their findings, they develop important problem-solving skills. Science literacy is essential to these processes.

The 2023 NAP – Science Literacy main study will be used to improve teaching and learning in science literacy. This study gives teachers information about student science literacy to inform their teaching. It also assists teachers, education leaders, parents/carers, the community, researchers and policy makers to use evidence of student proficiency in science literacy to assess student achievement against recognised goals and standards, and to drive improvements in student outcomes.

The science literacy assessment has been held every 3 years since 2003, with an exception for 2021 where it was postponed to 2023 because of COVID's impact on schools across Australia. In 2015, it was conducted online for the first time. 2018 marks another milestone – this was the first time that Year 10 students participated in the assessment.

How is the NAP – Science Literacy main study program run?

The Australian Curriculum, Assessment and Reporting Authority (ACARA) develops the sample tests in

consultation with curriculum and testing authorities, and practising science teachers in each state and territory.

To administer the tests, ACARA contracts a service provider. The 2023 NAP – Science Literacy main study will be administered by the Australian Council for Educational Research (ACER). NAP sample tests are delivered to students over the same online platform used for the annual NAPLAN tests. ACARA has worked closely with its technology partner, Education Services Australia (ESA), to ensure that teachers and students can be confident of a robust test delivery system that is easy to use. A field trial is conducted to evaluate the questions before the assessment main study.

The assessments will be held in May 2023 (Term 2). Each test session will run for 60 minutes (Year 6) or 75 minutes (Year 10). Schools should also allow time for setting up, preliminary instructions, and the completion of practice and survey questions.

How are schools and students selected to participate?

Around 12,000 Year 6 and Year 10 students from approximately 640 schools will participate in the main study. The sample of schools is stratified to ensure that government, Catholic and independent schools from metropolitan, rural and remote locations are appropriately represented.

ACARA's contractor, ACER, will ask participating schools to supply student lists for the relevant school year (Year 6 and/or Year 10). From these, ACER will select 20 students from each participating year at each school.

How are the tests constructed?

The 2023 NAP – Science Literacy main study comprises questions and tasks that enable students to demonstrate achievement and understanding at a range of levels.

Students have an opportunity to complete practice questions before progressing to the online assessment.

Activity	Description
Practice questions	Students complete a small set of questions to familiarise themselves with the types of questions they can expect.
Objective test	Students complete a series of questions that include multiple choice, “drag and drop” and short answer questions.
Inquiry task	Students engage in a task that reflects the key stages of a scientific investigation and answer a series of questions on it.
Student survey	Students complete a short survey regarding their perceptions of, and attitudes towards, science and their experiences of science learning at their school.

How will the assessment be conducted?

During Term 1, ACER will contact participating schools to provide training material and assist in the preparations schools must make to ensure they are ready to administer the test.

Prior to the assessment, schools will be able to determine the suitability of their computers or devices for the test by completing the required technical device checks.

On test day, the test session will be conducted by a nominated staff member from the school.

The training information provided to schools by ACER will ensure that the assessment is administered in a nationally consistent manner.

What are the outcomes?

The 2023 NAP – Science Literacy assessment is designed to provide data that is comparable at national, state and territory levels, and to identify overall trends.

Schools will receive information summarising their students’ performance in the tests before the end of the 2023 school year.

A public report on the results of the science literacy assessment, to be released in 2024, will document achievement in relation to the defined national proficiency levels. No individual students’ or schools’ result will be published.

The public report will include:

- analysis of the performance of different groups of students; for example, differences across genders, states/territories and metropolitan/regional schools
- comparison of science literacy across cohorts of Year 6 and Year 10 students
- comparison of achievement levels over time.

Selected materials (which include sample questions) from previous cycles of the NAP – Science Literacy assessment are available on the National Assessment Program website at www.nap.edu.au/nap-sample-assessments/school-support

Further information

Support for participating schools is available from the NAP – Science Literacy Helpdesk on 1800 599 426 or email: napscience@acer.org

General information about the National Assessment Program and the Science Literacy assessment can be found at www.nap.edu.au