

PAT: Mathematics helps teachers determine their students' levels of achievement in the knowledge, skills and understanding of mathematics in the New Zealand curriculum. It is directly aligned with the New Zealand Curriculum and targets the big ideas students need to understand in order to make progress.



Purpose of the assessment

- This assessment reflects progressions of learning in the New Zealand mathematics curriculum. It tests number knowledge, number strategies, algebra, geometry, measurement, and statistics.
- Specifically levelled questions on the big ideas in numeracy allow insight for teachers about their students' needs.
- Accurate, relevant information to improve teaching and learning.

Benefits of the assessment

- Multiple tests reflect expected progress through the curriculum. Teachers choose appropriate tests for students well above or well below—these students do not need to sit the year level test.
- Student-centred and relevant, giving an immediate picture of how students are achieving and progressing against the curriculum. Provides trustworthy evidence of achievement, and is useful for transition data of students' learning pathways.
- Curriculum progressions built into multi-choice questions support teachers' moderation and analysis of curriculum levels and needs.
- All students' results end up on one scale no matter which test they sit. This allows for accurate school-wide Community of Learning (CoL) reporting for strategic goal setting and planning.
- CoL/multi-school analysis reporting for trends, patterns and shifts using ethnic, gender, and year level filters for targeted improvement in teaching and learning.

NZCER's Education Advisors can provide support and challenge for how to use the results to define or address the problem for improvement. Contact our Education Advisors at education.advisors@nzcer.org.nz for more information.

Available as online or paper-based tests

As with all NZCER assessments, PAT: Mathematics tests can be purchased as paper tests, or you can sign up to administer online tests. Whether you do them on paper or online, we can provide you with a wide range of useful analysis reports as part of your NZCER subscription.

? For questions or advice

Email assessmentservices@nzcer.org.nz
or call Assessment Services on (04) 802 1630

\$ To purchase print tests

www.nzcer.org.nz/tests/pats
or email sales@nzcer.org.nz

i For more information and pricing

Visit www.nzcer.org.nz/tests/nzcer-marking-service

Supplementary tests



In 2015 we added six more tests to the PAT: Mathematics range. New tests 2A, 3A, 4A, 5A, 7A and 8A offer you more options about who, when, and why you test. The supplementary tests

allow teachers to use PAT: Mathematics at different times of the year or at different difficulty levels without having to repeat a previously administered test.

These supplementary tests fit in between the existing PAT: Mathematics tests. They are each targeted at a particular difficulty range and complement an existing test. Purchasing the supplementary tests gives your school more choice.

PAT: Mathematics Adaptive gives students a personalised test experience that helps teachers accurately pinpoint student achievement in the knowledge, skills, and understanding of Mathematics in the New Zealand Curriculum.

Purpose of the assessment

PAT: Mathematics Adaptive provides a personalised experience with individual learning pathways. It accurately assesses a student during the test by continuously adapting to give them questions that best fit their overall level of achievement.

The student is given an initial question at their year level. If they get it right, they're given a harder question. If they get it wrong, they're given an easier question.

It is not helpful from a teaching or learning point of view to always get everything right in a test. But getting everything wrong is equally unhelpful. PAT: Mathematics Adaptive means everyone gets the test that is right for them, from students at the lower levels to those who need additional challenges.

Benefits of the assessment

PAT: Mathematics Adaptive provides:

- a test that's truly personalised for students and their capability
- reporting at the individual level
- results from assessments compare the student's achievements to national norms
- the assessment is reported and measured on the same scale as PAT: Mathematics
- provides more precise information about how a student is tracking and achieving, with data that can be explored in far greater depth.
- provides a more supportive experience for the student.

Key features of adaptive test and static tests

Adaptive test	Static test
Each student gets their own mix of questions targeted at their achievement level. Detailed individual level reporting but no group item level reporting.	All students in the group respond to the same questions. This supports item level reporting.
The tests include a variety of question types—such as multiple choice, hot spot, drag and drop, and sorting questions.	Only multiple choice questions are used.
Students need to answer each question before they can go on to the next question.	Students can omit a question and come back to it later.
Students cannot change an answer once they have answered a question and pressed 'Next'.	Students can return to a question and change their answers.