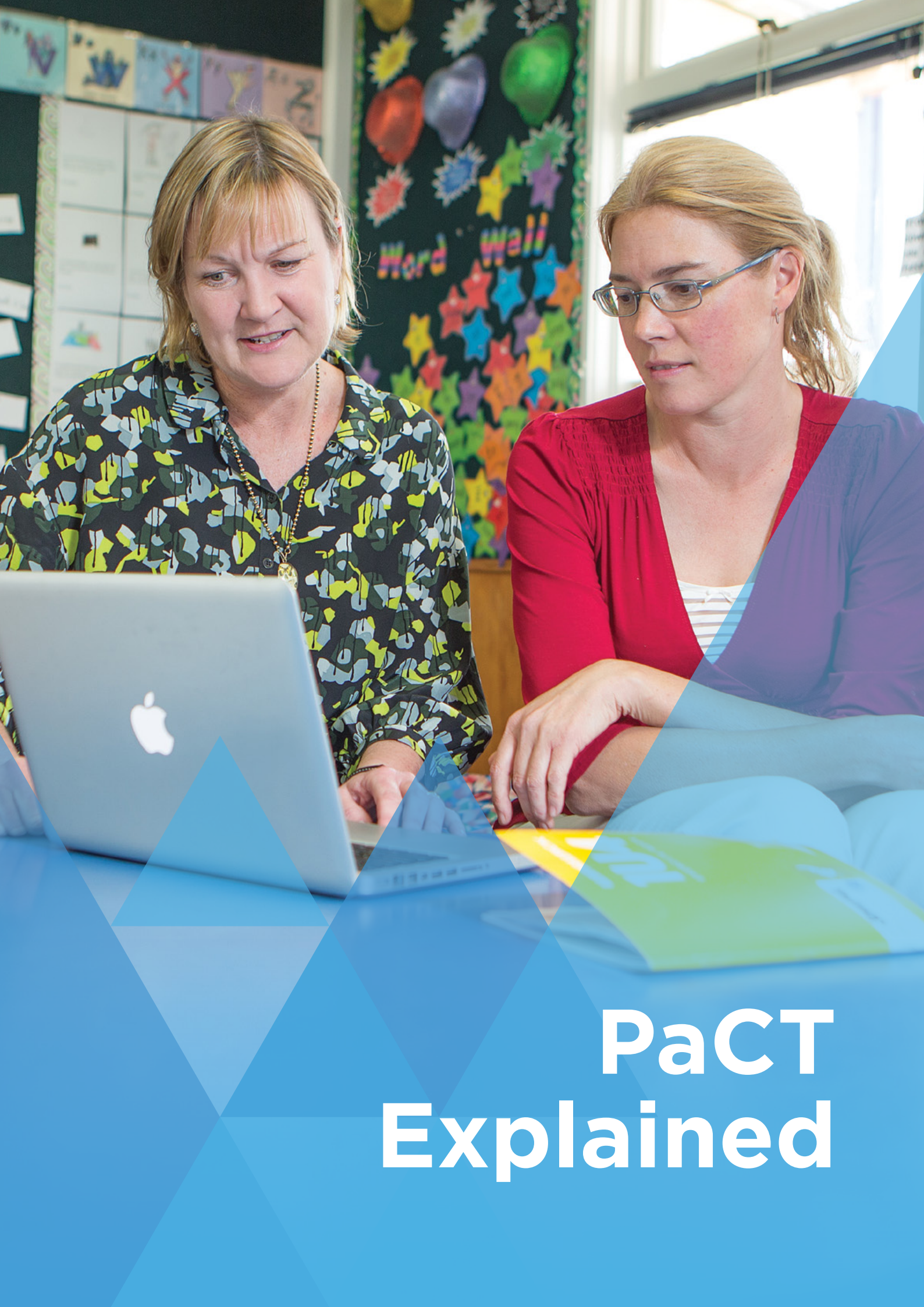


PaCT Explained

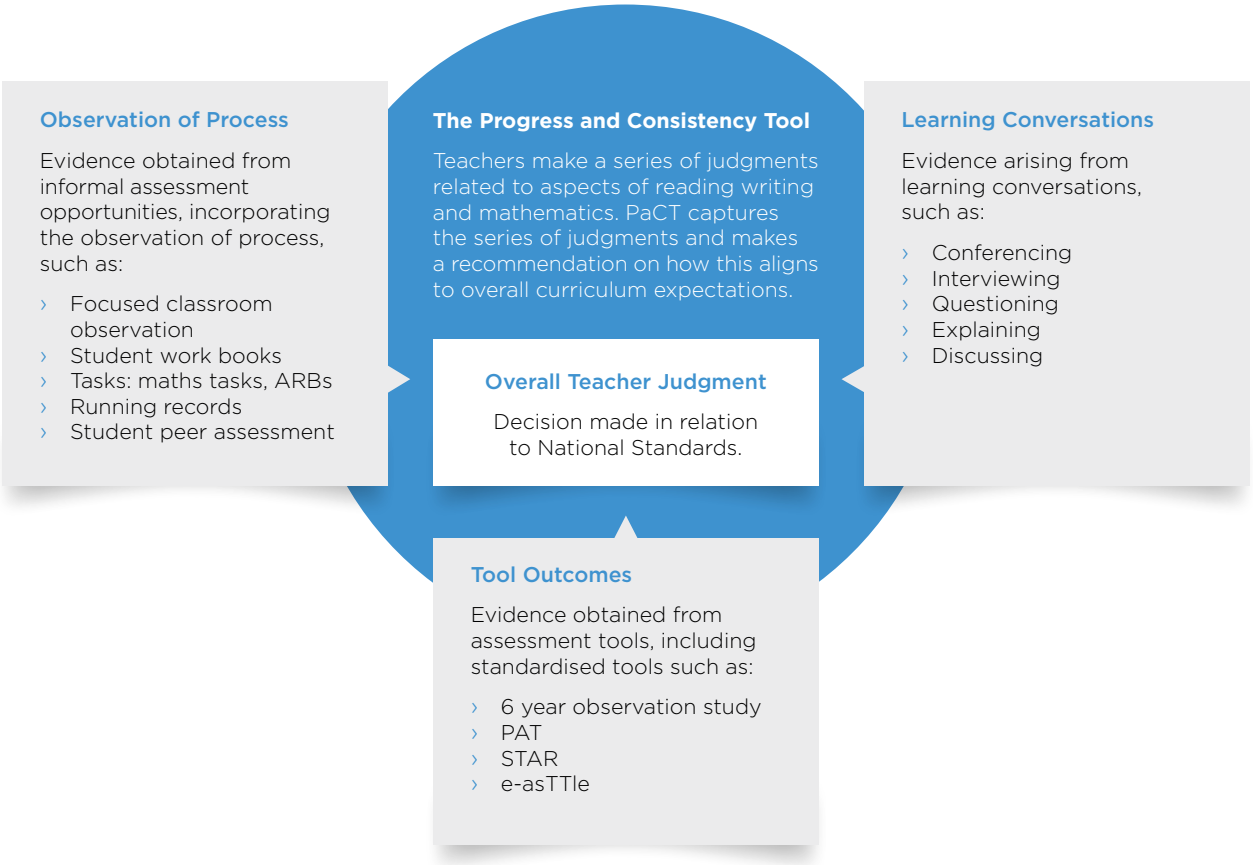
PaCT explained A T P

The PaCT has been designed to help teachers make dependable judgments on students' progress and achievement.

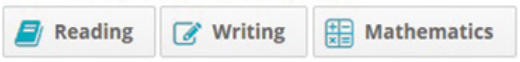
The PaCT is more than an online tool:

- It supports the New Zealand Curriculum. It prompts teachers to notice what students know and can do across the breadth of mathematics, reading and writing. It helps teachers to understand the learning progressions set by the Curriculum and amplified by National Standards.
- It supports moderation. It moderates individual teacher expectations through the frameworks and illustrations. It provides a common framework for teachers to discuss their judgment decisions with one another.
- It also supports assessment for learning. The breakdown of mathematics, reading and writing into aspects gives greater clarity about what to notice when making observations of students, in learning conversations and through set tasks.

Making judgments using PaCT



The frameworks



The frameworks are a principal feature of the PaCT.

They break down mathematics, reading and writing into different aspects and illustrate the stages of learning in each aspect.

They prompt teachers to consider what students know and can do across the breadth of mathematics, reading and writing.

The frameworks are aligned to:

- The New Zealand Curriculum
- The Literacy Learning Progressions for reading and writing
- The Number Framework for Mathematics

They were developed by experts in literacy, mathematics, education and assessment and reviewed and trialed by teachers.

The aspects

Each framework is designed with seven or eight aspects that enable teachers to focus on particular dimensions of student achievement. Together the aspects cover the breath of mathematics, reading and writing.

The PaCT breaks each aspect into observable and distinct learning stages. The graphical representation of the frameworks acknowledges that learning is not linear and there can be wider 'gaps' between one stage and another.

The online engine

The engine of the PaCT is a psychometric calibration that captures teacher judgments on the aspects. Based on those judgments, the engine calculates a numeric score representing a student's overall ability level for this framework, along with a margin of error (known as the PaCT range).

It helps overcome the difficulties in making overall judgments for students who achieve highly in some aspects of mathematics, reading and writing, but not in others.

The PaCT range enables the tool to calculate useful information about student progress over time. The range (numeric score) is not a requirement for reporting to students and parents.

The aspects explained

Mathematics

The mathematic standards, and therefore the PaCT aspects, focus on how well students' use their mathematical knowledge and skills to solve mathematical problems.

The aspects are organised according to the strands of the mathematics and statistics learning area of the Curriculum. Four aspects address the number and algebra strand, two relate to the measurement and geometry strand and two to the statistics and probability strand.

Reading and writing

Most Curriculum tasks involve reading and writing.

The reading and writing standards, and therefore the PaCT frameworks, focus on how students are using their knowledge and skills to meet the reading and writing demands of all areas of the New Zealand Curriculum.

Therefore the PaCT reading and writing aspects, and illusrations, are designed for cross-curricular use. They use tasks that are drawn from different areas, for example tasks from science and social sciences.

Mathematics

- Additive thinking
- Multiplicative thinking
- Patterns and relationships
- Using symbols and expressions to think mathematically
- Geometric thinking
- Measurement sense
- Statistical investigations
- Interpreting statistical and chance situations

Reading

- Making sense of text: processing system
- Making sense of text: text structure
- Making sense of text: vocabulary knowledge
- Making sense of text: reading critically
- Reading to organise ideas and information for learning
- Acquiring and using information and ideas in informational texts
- Reading for literary experience

Writing

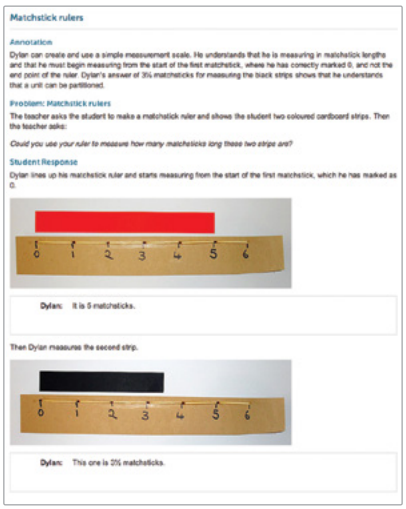
- Writing meaningful text: encoding
- Writing meaningful text: text features
- Writing meaningful text: vocabulary knowledge
- Using writing to think and organise learning
- Creating texts to communicate knowledge and understanding
- Creating text for literary purposes
- Creating texts to influence others

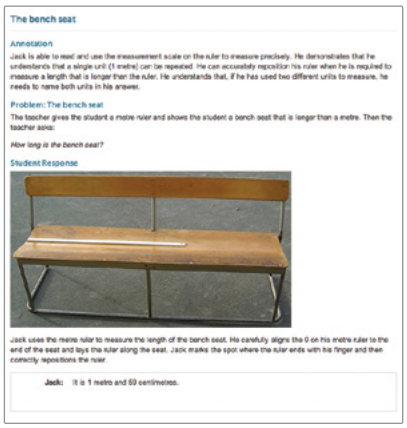
The illustrations

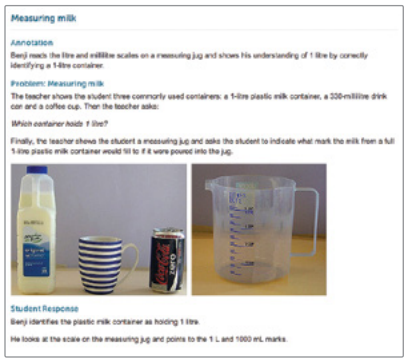
The steps of learning in each aspect are linked to sets of illustrations. The illustrations depict everyday classroom practice.

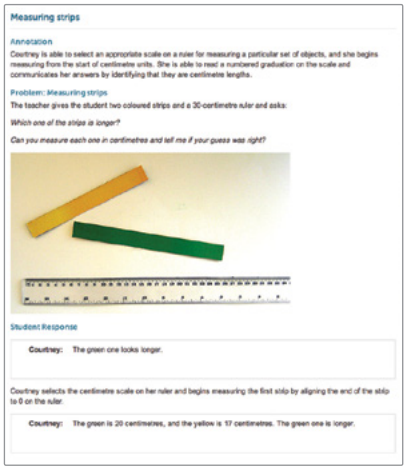
They describe students working on a range of problems and tasks in a variety of contexts. Teachers select the set of illustrations for each aspect that best 'fit' what students know and can do.

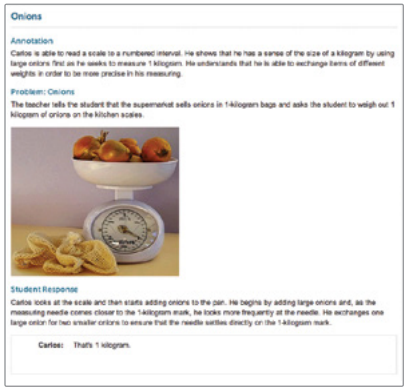
Examples of illustrations from Set Four in Measurement Sense











Each set of illustrations has a descriptor or 'big idea'.
Teachers can view the 'big ideas' as they review the sets of illustrations.

The big picture

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