



Pattern and Structure Assessment (PASA)

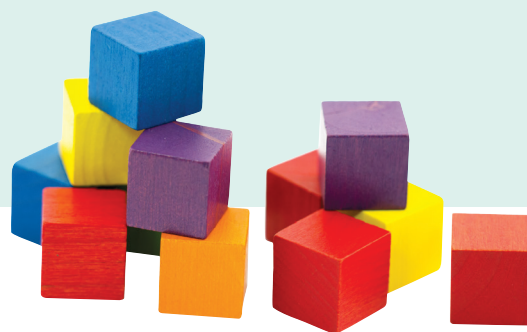
An assessment program for early mathematics (F–2)

Australian Council for Educational Research



Pattern and Structure Assessment (PASA)

Investigating how young children approach the core concepts of maths



Authors: Joanne Mulligan, Michael Mitchelmore and Andrew Stephanou
Publisher: ACER Press, 2015
Range: Foundation to Year 2
Purpose: To provide teachers with diagnostic information about how children think about mathematical ideas to inform teaching

Administration: 15–20 minutes (individual)

Pattern and Structure Assessment (PASA) is an innovative way of investigating young children's understanding of mathematics. PASA seeks to find out **how** children think about mathematical ideas and underlying tasks, rather than focusing on **what** mathematics children can and cannot do (as PAT Maths assesses). By knowing how children approach tasks, teachers can plan and scaffold individual learning experiences.

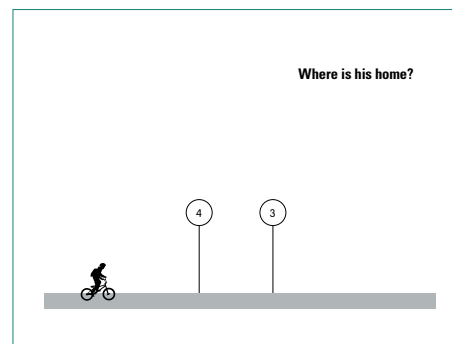
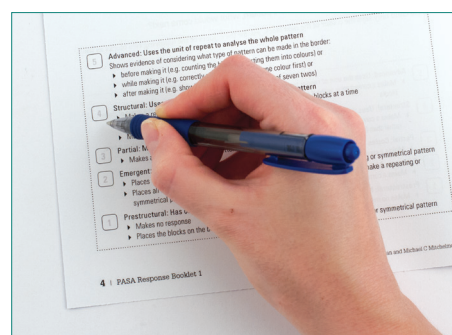
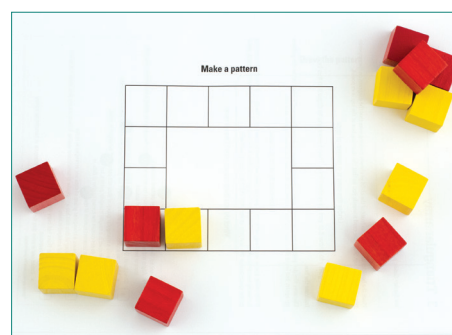
PASA consists of three one-on-one assessments designed for children in the first three years of formal schooling (Foundation to Year 2). Each PASA assessment consists of approximately 15 tasks, covering a wide variety of ideas that underlie strands of the Australian Curriculum: Foundation – Year 2 Mathematics.

KEY FEATURES:

- Provides information on the strengths and weaknesses of children at either end of the ability range.
- PASA results have been equated to the PAT Maths scale.
- Scale scores allow teachers to compare results regardless of the year level and the specific booklet completed.
- A common scale for the three assessments allows teachers to track progress over time.

BENEFITS:

- Provides in-depth diagnostic information about a child's mathematical thinking.
- Allows teachers to plan and scaffold individual learning.
- PASA and PAT Maths equating allows for comparison of how young children are thinking mathematically and what they are achieving.



Pattern and Structure Mathematics Awareness Program (PASMAT)

The Pattern and Structure Mathematics Awareness Program (PASMAT) is a network of related learning experiences developed for students in their first three years of formal schooling (Foundation to Year 2).

Based on research and evidence, PASMAT focuses on developing students' awareness of the pattern and structures that underlie the concepts and processes common to all the Australian Curriculum: Foundation – Year 2 Mathematics strands.

PASMAT is organised as a series of learning sequences, each of which consists of a number of learning experiences focused on a particular aspect of one or more early years mathematics structures (sequences, shape and alignment, equal spacing, structured counting and partitioning).

To maximise PASMAT, teachers can use results from PASA to select the most effective PASMAT learning sequences for their students.

KEY FEATURES

- Allows teachers to use PASA results to select appropriate lesson plans.
- Contains a flexible program of lessons that can be implemented in multiple ways.
- Includes digital versions of worksheets and activities for students.



Professional Learning

PASA Professional Learning Workshops address the awareness of pattern and structure that underpins early years mathematics, allowing teachers to improve mathematics learning outcomes in effective and engaging ways.

Based on content from PASMAT Book 1+2, PASA Professional Learning Workshops provide a comprehensive introduction to pattern and structure and its significance in students' mathematical development.

By the end of this workshop, teachers will understand;

- the five fundamental structures that underlie early mathematics: Sequences, Shape and alignment, Equal spacing, Structured counting and Partitioning
- how children vary in their awareness of these structures
- how learning experiences targeted at these structures can improve children's awareness of mathematical pattern and structure and their overall mathematical understanding.

Register at www.acer.edu.au/pasa

PASA components

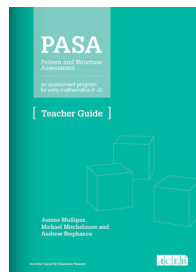


PASA Teacher Guide

\$89.95

Contains detailed information on:

- what PASA is
- selecting a PASA assessment
- administering a PASA assessment
- scoring children's responses
- reporting PASA results
- interpreting PASA reports.

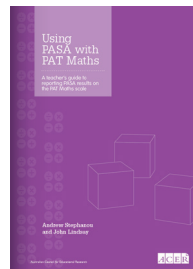


Using PASA with PAT Maths

\$16.95

This short guide (PDF download) provides information for teachers wishing to use PASA with PAT Maths and includes:

- the differences between the two instruments
- suggested best practice for assessing with PASA and PAT Maths
- revised descriptions of the lower PAT Maths achievement levels and
- details of the equating study.



PASA Specimen Set

\$149.95

Includes:

- PASA Teacher Guide
- Response Booklet F
- Response Booklet I
- Response Booklet 2
- Assessment Materials Kit
- Using PASA with PAT Maths Booklet.



PASA Response Booklets

\$34.95 ea

Designed to assess children's mathematical understanding from Foundation to Year 2.

- 14–16 tasks per booklet
- Sold in packs of 10
- Consumable - Students mark their responses in the Response Booklets, which are then replaced each time testing takes place.

PASA Assessment Materials Kit

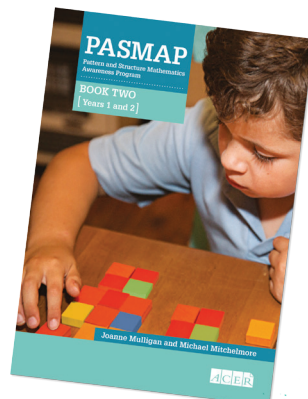
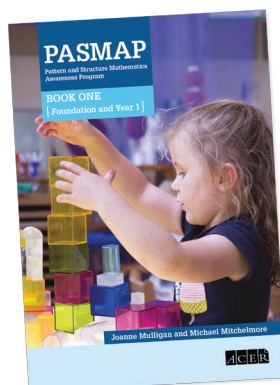
\$49.95

Contains a set of reusable stimulus materials for use when administering PASA.



Purchase at www.acer.edu.au/pasa

PASMAP components



PASMAP Books

\$72.95 ea

PASMAP addresses the awareness of pattern and structure that underpins early year's mathematics, allowing teachers to improve mathematics learning outcomes in effective and engaging ways.

Book One – Foundation and Year 1

Book Two – Years 1 and 2.