Prinary Jatas

Student Activity Book

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Students learn mathematical skills and concepts in everyday life as they interact with their environment and the people around them. They pose and answer questions; recognise and represent numbers; count, estimate and calculate; measure and identify shapes; and investigate spatial relationships.

Primary Maths Student Activity Book 2 provides a series of mathematics activities that encourage students to think about situations and problems, talk to others about their ideas and develop their own strategies as confident learners. In keeping with the Australian mathematics curriculum, Primary Maths fosters the development of the four proficiency strands – Understanding, Fluency, Problem Solving and Reasoning – through the wide range of activities that it offers the student. These activities address and develop the descriptions and elaborations of the Australian curriculum's three content strands, as outlined below.

Within the Primary Maths Student Activity Book 2 there are links to our successful Mathsin-a-Box series that can be used in conjunction with the books to provide additional support and enrichment.

Number and Algebra

Primary Maths promotes the use of number and mathematical concepts so that students can understand the language and processes of counting by naming numbers in a sequence. Initially, students will investigate number sequences increasing and decreasing by twos, threes, fives and tens from any starting point, then moving to other sequences.

Primary Maths develops students' understanding of numbers by helping them recognise, model, represent and order numbers to at least 1000 and to group, partition and rearrange collections up to 1000.

Using Primary Maths activities, students will explore the connection between addition and subtraction and solve simple addition and subtraction problems using a range of efficient mental and written strategies. They will also learn to recognise and represent multiplication as repeated addition, groups and arrays and represent division as grouping into equal sets and solve simple problems using these representations. Primary Maths will build on students' understandings of fractions by teaching them to recognise and interpret common uses of halves, quarters and eighths of shapes and collections.

Primary Maths activities will help students count and order small collections of Australian coins and notes according to their value.

Mathematics involves a search for patterns and relationships. Accordingly, investigating and describing number patterns and patterns with objects are important skills. Using Primary Maths students will describe patterns with numbers and identify missing elements and solve problems by using number sentences for addition or subtraction.

Measurement and Geometry

Number ideas are further developed in the context of measurement activities in Primary Maths. Students will compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units. Students will also compare masses of objects using balance scales.

The measurement of time is also examined. Students will learn to tell time to the quarterhour, using the language of 'past' and 'to', name and order months and seasons and use a calendar to identify the date and determine the number of days in each month.

Students will develop their understanding of location and transformation by learning to interpret simple maps of familiar locations and identify the relative positions of key features and investigating the effect of one-step slides and flips. Using the *Primary Maths* activities, students will be able to identify and describe half and quarter-turns.

Primary Maths gives students the skills to sort, describe and draw two-dimensional shapes, and describe the features of three-dimensional objects.

Statistics and Probability

While undertaking chance activities in *Primary Maths*, students will identify practical activities and everyday events that involve chance, and will describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible'.

Primary Maths data activities will help students to develop the skills they need to identify questions of interest based on one categorical variable. Students will gather data relevant to the question then collect, check and classify the data.

They will also create displays of data using lists, table and picture graphs and interpret them.

Page elements

The *Primary Maths* Student Activity Books use a system of subtle colour coding to indicate the level of difficulty of the questions, which is outlined below:

- 🕕 yellow beginning
- 2 blue consolidation
 - 3 red extension
 - The red arrow on the pages indicates a challenge question.
 - Reference throughout the books is made to our successful *Maths-in-a-Box* series which can be used in conjunction with the books to provide additional support and
 - enrichment.

Discussion icons are indicated throughout the books to highlight areas where class or small-group discussion can take place.

The M icon stands for 'more maths', and it indicates material that has been included to ensure smooth and sensible bridging between the year levels. The authors of *Primary Maths* have presented a thorough and pedagogically sound interpretation of the Australian mathematics curriculum. They have also included material that offers a whole and complete course, which complements the core content to ensure students receive a complete understanding of the material.

In addition, yellow boxes contain information to help students recall past learning, or offer hints and further explanation of difficult concepts.