Number and Algebra Foundation

Teacher: Date:

A Local Public School

Cross Curriculum Priorities

- Aboriginal and Torres Strait Islander histories and culture
- Asia and Australia's engagement with Asia
- Sustainability

General Capabilities

- Literacy
- Numeracy
- ICT Competence
- Critical and Creative Thinking
- Intercultural Understanding
- Personal and Social Competence
- Ethical Behaviour

First Steps Links

Understand Whole and Decimal Numbers

- ☐ KU 1 Pg.
- ☐ KU 2 Pg.
- ☐ KU 3 Pg.
- ☐ KU 4 Pg.
- ☐ KU 5 Pg.
- ☐ KU6 Pg.
- ☐ KU 7 Pg.
- ☐ KU 8 Pg.

Understand Fractional Numbers

- ☐ KU 1 Pg.
- ☐ KU 2 Pg.
- ☐ KU 3 Pg.
- ☐ KU 4 Pg.
- ☐ KU 5 Pg.
- ☐ KU 6 Pg.
- ☐ KU 7 Pg.

Understand Operations

- ☐ KU 1 Pg.
- ☐ KU 2 Pg.
- ☐ KU 3 Pg.
- ☐ KU 4 Pg.
- ☐ KU 5 Pg.
- ☐ KU 6 Pg.
- ☐ KU 7 Pg.
- ☐ KU 8 Pg.
- ☐ KU 9 Pg.

Calculate

- ☐ KU 1 Pg.
- ☐ KU 2 Pg.
- ☐ KU 3 Pg.
- ☐ KU 4 Pg.
- ☐ KU 5 Pg.
- ☐ KU 6 Pg.
- ☐ KU 7 Pg.
- ☐ KU 8 Pg.
- ☐ KU 9 Pg.
- ☐ KU 10 Pg.

Reason About Number Patterns

KU 1 Pg.

KU 2 Pg.

KU 3 Pg.

KU 4 Pg.

KU 5 Pg.

KU 6 Pg.

Foundation	Year 1	Year 2
NUMBER AND PLACE VALUE	**NUMBER AND PLACE VALUE**	**NUMBER AND PLACE VALUE**
Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point *[ACMNA001]* Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond *[ACMNA002]* Subitise small collections of objects *[ACMNA003]* Compare, order and make correspondences between collections, initially to 20, and explain reasoning *[ACMNA289]* Represent practical situations to model addition and sharing *[ACMNA004]*	Develop confidence with number sequences, to and from 100 by ones from any starting point. Skip count by 2's, 5's and 10's starting from zero. *[ACMNA012]* Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a num-ber line *[ACMNA013]* Count collections to 100 by partitioning numbers using place value. *[ACMNA014]* Represent and solve simple addition and subtraction problems using a range of strategies including count-ing on, partitioning and rearranging parts *[ACMNA015]*	Investigate number sequences, initially those increas-ing and decreasing by 2's, 3's, 5's and 10 from any starting point, then moving to other sequences. *[ACMNA026]* Recognise, model, represent and order numbers to at least 1000 *[ACMNA027]* Group, partition and rearrange collections up to 1000 in hundreds, tens and ones to facilitate more efficient counting. *[ACMNA028]* Explore the connection between addition and subtraction. *[ACMNA029]* Solve simple addition and subtraction problems using a range of efficient mental and written strategies. *[ACMNA030]* Recognise and represent multiplication as repeated addition, groups and arrays *[ACMNA031]* Recognise and represent division as grouping into equal sets and solve simple problems using these representations *[ACMNA032]*
FRACTIONS AND DECIMALS	**FRACTIONS AND DECIMALS**	**FRACTIONS AND DECIMALS**
	Recognise and describe one half as one of two equal parts of a whole. *[ACMNA016]*	Recognise and interpret common uses of halves, quarters and eighths of shapes andcollections. *[ACMNA033]*
MONEY AND FINANCIAL MATHEMATICS	**MONEY AND FINANCIAL MATHEMATICS**	**MONEY AND FINANCIAL MATHEMATICS**
	Recognise, describe and order Australian coins according to their value. *[ACMNA017]*	Count and order small collections of Australian coins and notes according to their value. *[ACMNA034]*
PATTERNS AND ALGEBRA	**PATTERNS AND ALGEBRA**	**PATTERNS AND ALGEBRA**
Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings *[ACMNA005]*	Investigate and describe number patterns formed by skip counting and patterns with objects. *[ACMNA018]*	Describe patterns with numbers and identify missing elements. *[ACMNA035]* Solve problems using number sentences for addition and subtraction. *[ACMNA036]*

Foundation Year Achievement Standard

By the end of the Foundation year, students make connections between number names, numerals and quantities up to 10. They compare objects using mass, length and capacity. Students connect events and the days of the week. They explain the order and duration of events. They use appropriate language to describe location. Students count to and from 20 and order small collections. They group objects based on common characteristics and sort shapes and objects. Students answer simple questions to collect information.

ACTIVITIES

PROFICIENCY STRANDS

Understanding

Students build a robust knowledge of adaptable and transferable mathematical concepts. They make connections between related concepts and progressively apply the familiar to develop new ideas. They develop an understanding of the relationship between the 'why' and the 'how' of mathematics. Students build understanding when they connect related ideas, when they represent concepts in different ways, when they identify commonalities and differences between aspects of content, when they describe their thinking mathematically and when they interpret mathematical information.

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Problem Solving

Students develop the ability to make choices, interpret, formulate, model and investigate problem situations, and communicate solutions effectively. Students formulate and solve problems when they use mathematics to represent unfamiliar or meaningful situations, when they design investigations and plan their approaches, when they apply their existing strategies to seek solutions, and when they verify that their answers are reasonable.

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Fluency

Students develop skills in choosing appropriate procedures, carrying out procedures flexibly, accurately, efficiently and appropriately, and recalling factual knowledge and concepts readily. Students are fluent when they calculate answers efficiently, when they recognise robust ways of answering questions, when they choose appropriate methods and approximations, when they recall definitions and regularly use facts, and when they can manipulate expressions and equations to find solutions.

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Reasoning

Students develop an increasingly sophisticated capacity for logical thought and actions, such as analysing, proving, evaluating, explaining, inferring, justifying and generalising. Students are reasoning mathematically when they explain their thinking, when they deduce and justify strategies used and conclusions reached, when they adapt the known to the unknown, when they transfer learning from one context to another, when they prove that something is true or false and when they compare and contrast related ideas and explain their choices.

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Resources Being Used