Chapel Hill State School

Maths Curriculum and Assessment Year Level Plan 2025

Year 3

AC V9

Curriculum Intent

Year Level Description

In Year 3, learning in Mathematics builds on each student's prior learning and experiences. Students engage in a range of approaches to learning and doing mathematics that develop their understanding of and fluency with concepts, procedures and processes by making connections, reasoning, problem-solving and practice. Proficiency in mathematics enables students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.

Students further develop proficiency and positive dispositions towards mathematics and its use as they:

- become increasingly aware of the usefulness of mathematics to model situations and solve practical problems
- recognise that mathematics has conventions and language enabling the unambiguous communication of ideas and results
- experience the power of being able to manipulate numbers using a range of strategies that are based on proficiency with single-digit addition facts and their understanding of place value in the base-10 number system, partitioning and regrouping
- begin to apply their understanding of algorithms and technology to experiment with numbers and recognise patterns
- develop, extend and apply their addition and multiplication facts and related facts for subtraction and division through recognising connections between operations and develop automaticity for 3, 4, 5, and 10 multiplication facts through games and meaningful practice
- learn to formulate, choose and use calculation strategies, communicating their solutions within a modelling context
- use metric units to measure and compare objects and events
- recognise the relationship between dollars and cents and learn to represent money values in different ways
- determine key features of objects and spaces, and use these when they build models and spatial representations
- undertake, with guidance, statistical investigations that are meaningful to them, making decisions about their use and representation of categorical and discrete numerical data and reporting findings
- develop a qualitative understanding of chance and use the language of chance to describe and compare the outcomes of familiar chance events
- become increasingly able to understand that different outcomes can be the results of random processes.

Achievement Standard

Spiral Progression and Alignment

YEAR 2

Number, Algebra
By the end of Year 2, students order and represent numbers to at least 1000, apply knowledge of place value to partition, rearrange and rename two- and three-digit numbers in terms of their parts, and regroup partitioned numbers to assist in calculations. They use mathematical modelling to solve practical additive and multiplicative problems, including money transactions, representing the situation and choosing calculation strategies. Students identify and represent part-whole relationships of halves, quarters and eighths in measurement contexts. They describe and continue patterns that increase and decrease additively by a constant amount and identify missing elements in the pattern. Students recall and demonstrate proficiency with addition and subtraction facts within 20 and multiplication facts for twos.

Measurement, Space
They use uniform informal units to measure and compare shapes and objects. Students determine the number of days between events using a calendar and read time on an analog clock to the hour, half hour and quarter hour. They compare and classify shapes, describing features using formal spatial terms. Students locate and identify positions of features in two-dimensional representations and move position by following directions and pathways.

Statistics, Probability
They use a range of methods to collect, record, represent and interpret categorical data in response to questions.

YEAR 3

Number, Algebra
By the end of Year 3, students order and represent natural numbers beyond 10 000. They partition, rearrange and regroup two- and three-digit numbers in different ways to assist in calculations. Students extend and use single-digit addition and related subtraction facts and apply additive strategies to model and solve problems involving two- and three-digit numbers. They use mathematical modelling to solve practical problems involving single-digit multiplication and division, recalling multiplication facts for twos, threes, fours, fives and tens, and using a range of strategies. Students represent unit fractions and their multiples in different ways. They make estimates and determine the reasonableness of financial and other calculations. Students find unknown values in number sentences involving addition and subtraction. They create algorithms to investigate numbers and explore simple patterns.

Measurement, Space
Students use familiar metric units when estimating, comparing and measuring the attributes of objects and events. They identify angles as measures of turn and compare them to right angles. Students estimate and compare measures of duration using formal units of time. They represent money values in different ways. Students make, compare and classify objects using key features. They interpret and create two-dimensional representations of familiar environments.

Statistics, Probability
Students conduct guided statistical investigations involving categorical and discrete numerical data, and interpret their results in terms of the context. They record, represent and compare data they have collected. Students use practical activities, observation or experiment to identify and describe outcomes and the likelihood of everyday events explaining reasoning. They conduct repeated chance experiments and discuss variation in results.

YEAR 4

Number, Algebra
By the end of Year 4, students use their understanding of place value to represent tenths and hundredths in decimal form and to multiply natural numbers by multiples of 10. They use mathematical modelling to solve financial and other practical problems, formulating the problem using number sentences, solving the problem choosing efficient strategies and interpreting results in terms of the situation. Students use their proficiency with addition and multiplication facts to add and subtract, multiply and divide numbers efficiently. They choose rounding and estimation strategies to determine whether results of calculations are reasonable. Students use the properties of odd and even numbers. They recognise equivalent fractions and make connections between fraction and decimal notations. Students count and represent fractions on a number line. They find unknown values in numerical equations involving addition and subtraction. Students follow and create algorithms that generate sets of numbers and identify emerging patterns.

Measurement, Space
They use scaled instruments and appropriate units to measure length, mass, capacity and temperature. Students measure and approximate perimeters and areas. They convert between units of time when solving problems involving duration. Students compare angles relative to a right-angle using angle names. They represent and approximate shapes and objects in the environment. Students create and interpret grid references. They identify line and rotational symmetry in plane shapes and create symmetrical patterns.

Statistics, Probability
Students create many-to-one data displays, assess the suitability of displays for representing data and discuss the shape of distributions and variation in data. They use surveys and digital tools to generate categorical or discrete numerical data in statistical investigations and communicate their findings in context. Students order events or the outcomes of chance experiments in terms of likelihood and identify whether events are independent or dependent. They conduct repeated chance experiments and describe the variation in results.

Sequence of units	Semester 1		Semester 2	
	Unit 1	**Unit 2**	**Unit 3**	**Unit 4**
Unit description	Students develop proficiency and positive dispositions towards mathematics and its use as they: • recognise that mathematics has conventions and language that enables communication of ideas and results through the mathematical proficiencies **Number, Algebra** • manipulate numbers by partitioning and regrouping using physical and virtual materials to build an understanding of place value in the base-10 number system • develop, extend and apply their addition and multiplication facts, and related facts for subtraction and division through games and meaningful practice **Space** • explore maps and determine key features of familiar spaces and use these when creating spatial representations **Statistics** • undertake a statistical investigation that is meaningful, allowing decision making about the use and representation of data and communicate findings	Students develop proficiency and positive dispositions towards mathematics and its use as they: **Number, Algebra** • manipulate numbers using a range of strategies including partitioning and regrouping that are based on understanding and fluency with single-digit addition facts and place value in the base-10 number system • develop, extend and apply addition and multiplication facts and related facts for subtraction and division through recognising connections between the operations and developing automaticity for 3, 4, 5, and 10 multiplication facts through games and meaningful practice • use a modelling context to formulate, choose and use calculation strategies in order to communicate solutions with reasoning • make estimates when solving problems to determine the reasonableness of calculations when checking the solution • recognise the relationship between dollars and cents and learn to represent money values in different ways with a focus on everyday situations **Measurement** • identify everyday situations when using metric units to measure and compare events and duration	Students develop proficiency and positive dispositions towards mathematics and its use as they: • become increasingly aware of the usefulness of mathematics to model situations and solve practical problems in everyday situations **Number, Algebra** • communicate solutions within a modelling context by recognising and representing unit fractions and multiples in different ways • learn to formulate, choose and use calculation strategies, communicating their solutions in a modelling context • build fluency from understanding by extending and applying their addition and multiplication facts and related facts for subtraction and division through recognising connections between operations and develop automaticity for 3, 4, 5, and 10 multiplication facts through games and meaningful practice **Space** • use manipulatives to determine key features of objects and spaces including angles, and use these when building models and spatial representations **Measurement** • identify everyday situations when using metric units to measure and compare objects	Students develop proficiency and positive dispositions towards mathematics and its use as they: **Number, Algebra** • manipulate numbers beyond 10 000 by partitioning and regrouping using understanding of place value in the base-10 number system • begin to apply their understanding of algorithms and technology to experiment with numbers and recognise patterns • use meaningful practice to extend and apply addition and multiplication facts and related facts for subtraction and division through recognising connections between operations and develop automaticity for 3, 4, 5, and 10 multiplication facts **Probability** • use games develop a qualitative understanding of chance and use the language of chance to describe and compare the outcomes of familiar chance events • use chance experiments to understand that different outcomes can be the results of random processes.
Curriculum links				

		Semester 1		Semester 2	
Assessment		**Assessment task U1.1 Space** *Interpreting and creating a map*	**Assessment task U2.1 Number, Algebra** *Using mathematical modelling and additive strategies to solve problems*	**Assessment task U3.1 Number** *Representing fractions and using mathematical modelling to solve practical problems*	**Assessment task U4.1 Number, Algebra** *Applying knowledge of numbers beyond 10 000, finding unknowns, creating algorithms, solving problems and determining reasonableness*
Range and balance of assessment conventions	**Technique**	Short response Observed demonstration	Test Observed demonstration	Short response Observed demonstration	Test Observed demonstration
	Mode	Multimodal	Practical	Practical	Practical
	Conditions	☒ Access to resources ☒ Individual task **or** ☐ Group task **Consideration of:** ☒ Time conditions ☒ Accessibility for all students	☒ Access to resources ☒ Individual task **or** ☐ Group task **Consideration of:** ☒ Time conditions ☒ Accessibility for all students	☒ Access to resources ☐ Individual task **or** ☒ Group task **Consideration of:** ☒ Time conditions ☒ Accessibility for all students	☒ Access to resources ☐ Individual task **or** ☒ Group task **Consideration of:** ☒ Time conditions ☒ Accessibility for all students
	Diagnostic	Includes Monitoring / Diagnostic Number Task	Includes Unit Diagnostic Number	Includes Unit Diagnostic Number	Includes Unit Diagnostic Number
Assessment		**Assessment task U1.2 Statistics** *Conducting a guided statistical investigation*	**Assessment task U2.2 Measurement** *Estimating, measuring and comparing duration of events*	**Assessment task U3.2 Measurement** *Measuring length, mass and capacity and making and classifying objects*	**Assessment task U4.2 Probability** *Identifying likelihood of events and conducting chance experiments*
Range and balance of assessment conventions	**Technique**	Investigation Observed demonstration	Test Observed demonstration	Short response Observed demonstration	Investigation Observed demonstration
	Mode	Written	Written	Written	Practical
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	Diagnostic				
Assessment					
Range and balance of assessment conventions	**Technique**	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.
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	Diagnostic				

Achievement Standard Elements Assessed / Elements Monitored				
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	Number, Algebra **By the end of Year 3**, students order and represent natural numbers beyond 10 000. They partition, rearrange and regroup two- and three-digit numbers in different ways to assist in calculations. Students extend and use single-digit addition and related subtraction facts and apply additive strategies to model and solve problems involving two- and three-digit numbers. They use mathematical modelling to solve practical problems involving single-digit multiplication and division, recalling multiplication facts for twos, threes, fours, fives and tens, and using a range of strategies. Students represent unit fractions and their multiples in different ways. They make estimates and determine the reasonableness of financial and other calculations. Students find unknown values in number sentences involving addition and subtraction. They create algorithms to investigate numbers and explore simple patterns. **Measurement, Space** Students use familiar metric units when estimating, comparing and measuring the attributes of objects and events. They identify angles as measures of turn and compare them to right angles. Students estimate and compare measures of duration using formal units of time. They represent money values in different ways. Students make, compare and classify objects using key features. They interpret and create two-dimensional representations of familiar environments. **Statistics, Probability** **Students conduct guided statistical investigations involving categorical and discrete numerical data, and interpret their results in terms of the context**. **They record, represent and compare data they have collected.** Students use practical activities, observation or experiment to identify and describe outcomes and the likelihood of everyday events explaining reasoning. 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Disclaimer: Please use this Year Level Plan (Curriculum Map) as a guide. Due to professional judgement or circumstances beyond our control, it may be necessary to make changes to the published timetabling, delivery or instrument of an assessment