| Reception Term 1 |  |
| :---: | :---: |
| Week 1 | Week 7 |
| Assessment | Number 10 and Assessment |
|  | Days of the Week Subitising to 6 Numbers to 10 |
| Week 2 | Week 8 |
| Assessment | Rainbow Facts to 10 (Addition) |
| Chart to 30 (beginning of each term) | *Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts <br> *Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies |
| Week 3 | Week 9 |
| Days of the Week/Times of the day (ongoing) | Rainbow Facts to 10 (Addition) |
| *Sequence days of the week and times of the day including morning, lunchtime, afternoon and night time, and connect them to familiar events and actions | *Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts <br> *Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies |
| Week 4 | Week 10 |
| Numbers 0, 1, 2, 3 | Rainbow Facts to 10 (Subtraction) |
| *Name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning <br> *Recognise and name the number of objects within a collection up to 5 using subitising | *Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts <br> *Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies |
| Week 5 | Week 11 |
| Numbers 4, 5, 6 | Subtraction (Rainbow Facts)/Assessment |
| Name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning <br> *Recognise and name the number of objects within a collection up to 5 using subitising | Rainbow Facts Addition Rainbow Facts Subtraction |
| Week 6 <br> Numbers 7, 8, 9 |  |
| *Name, represent and order numbers including zero to at least 20 , using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning <br> *Recognise and name the number of objects within a collection up to 5 using subitising |  |


| Reception Term 2 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Numbers 11,12,13 | Add within 20 |
| *Name, represent and order numbers including zero to at least 20 , using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning | *Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies |
| Week 2 | Week 7 |
| Numbers 14, 15, 16 | Subtract within 20 |
| *Name, represent and order numbers including zero to at least 20 , using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning | *Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies |
| Week 3 | Week 8 |
| Numbers 17, 18, 19 | Subtract within 20 |
| *Name, represent and order numbers including zero to at least 20 , using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning | *Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies |
| Week 4 | Week 9 |
| Number 20/Assessment | Add/Subtract within 20 |
| Numbers to 20 Rainbow Facts to 10 | *Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies |
| Week 5 | Week 10 |
| Add within 20 | Assessment - Revision |
| *Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies | Rainbow Facts Addition Rainbow Facts Subtraction |


| Reception Term 3 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Equal Sharing within 20 | Shapes |
| * Represent practical situations involving equal sharing and grouping with physical and virtual materials and use counting or subitising strategies | *Sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons |
| Week 2 | Week 7 |
| Numbers 21, 22, 23 | Shapes |
| *Name, represent and order numbers including zero to at least 20 , using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning | *Sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons |
| Week 3 | Week 8 |
| Numbers 24, 25, 26 | Patterns |
| *Name, represent and order numbers including zero to at least 20 , using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning | *Recognise, copy and continue repeating patterns represented in different ways |
| Week 4 | Week 9 |
| Numbers 27, 28, 29 | Patterns |
| *Name, represent and order numbers including zero to at least 20 , using physical and virtual materials and numerals <br> *Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning | *Recognise, copy and continue repeating patterns represented in different ways |
| Week 5 | Week 10 |
| Number 30/ Revision - Assessment | Assessment - Revision |
| Numbers Equal Sharing Patterning Length | Length Capacity Mass Shapes |


| Reception Term 4 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Measurement - Length | Data Collection and Representation |
| *Identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning | *Collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations |
| Week 2 | Week 7 |
| Measurement - Capacity/Mass | Data Collection and Representation |
| *Identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning | *Collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations |
| Week 3 |  |
| Location/Directional vocabulary |  |
| *Describe the position and location of themselves and objects in relation to other people and objects within a familiar space |  |
| Week 4 |  |
| Location/Directional vocabulary |  |
| *Describe the position and location of themselves and objects in relation to other people and objects within a familiar space |  |
| Week 5 |  |
| Report Assessment/Revision |  |
| Location/Positioning |  |
| *Report Assessment |  |


| Year 1 Term 1 |  |
| :---: | :---: |
| Week 1 | Week 7 |
| Assessment | Count to 120 |
|  | Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts |
| Week 2 | Week 8 |
| Assessment | Count to 120 |
| Hundreds chart to 120 (beginning of each term) | Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts |
| Week 3 | Week 9 |
| Days of the Week/Months of the Year (MR) | Count to 120 |
| *Describe the duration and sequence of events using years, months, weeks, days and hours | Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts |
| Week 4 | Week 10 |
| Count to 120/Odd and Even Numbers | Assessment and Revision |
| *Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts <br> (Odd and Even numbers not in curriculum, but I think it's important - but would it be better later?) | *Numbers to 120 <br> *Teen Numbers |
| Week 5 | Week 11 |
| Count to 120/Teen Numbers | Shapes |
| *Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals and number lines and charts | *Make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them |
| Week 6 |  |
| Teen Numbers and Assessment |  |
| *Odd and Even Numbers <br> *Teen Numbers |  |


| Year 1 Term 2 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Patterning | Place Value |
| *Recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit <br> *Assessment - Hundreds Chart to 120 | *Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones |
| Week 2 | Week 7 |
| Rainbow Facts (Addition \& Subtraction) | Add/Subtract within 20 |
| *Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies | *Add and subtract numbers within 20 , using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies |
| Week 3 | Week 8 |
| Place Value (Tens and Ones) | Add/Subtract within 20 |
| *Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones | *Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies |
| Week 4 | Week 9 |
| Place Value (Expanded Form) | Add/Subtract within 20 |
| *Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones | *Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *Patterning <br> *Rainbow Facts <br> *Place Value | *Place Value <br> *Addition/Subtraction within 20 |


| Week 1 |  |  |
| :--- | :---: | :---: |
| Skip Counting in 10s |  |  |
| *Quantify sets of objects, to at least 120, by <br> partitioning collections into equal groups using <br> number knowledge and skip counting <br> *Recognise, continue and create pattern sequences, <br> with numbers, symbols, shapes and objects, formed <br> by skip counting, initially by twos, fives and tens <br> *Assessment - Hundreds Chart to 120 |  |  |
| Week 2 |  |  |
| Skip Counting in 2s |  |  |
| *Quantify sets of objects, to at least 120, by <br> partitioning collections into equal groups using <br> number knowledge and skip counting <br> *Recognise, continue and create pattern sequences, <br> with numbers, symbols, shapes and objects, formed <br> by skip counting, initially by twos, fives and tens |  |  |


| Week 3 |
| :--- | :--- |
| Skip Counting in 5s |
| *Quantify sets of objects, to at least 120, by |
| partitioning collections into equal groups using |
| number knowledge and skip counting |


| Week 4 | Week 9 |
| :--- | :--- |
| Equal Sharing | Measurement - Capacity |
| *Quantify sets of objects, to at least 120, by <br> partitioning collections into equal groups using <br> number knowledge and skip counting | *Compare directly and indirectly and order objects <br> and events using attributes of length, mass, capacity <br> and duration, communicating reasoning |
| *Use mathematical modelling to solve practical <br> problems involving equal sharing and grouping; <br> represent he situations with diagrams, physical and <br> virtual materials, and use calculation strategies to <br> solve the problem |  |
|  |  |
| Week 5 5evion - Assessment | Week 10 |
| *Skip count in 10s <br> *Skip count in 2s <br> *Skip count in 5s <br> *Equal Sharing | *Money <br> *Length |



| Year 2 Term 1 |  |
| :---: | :---: |
| Week 1 | Week 7 |
| Assessment | Addition and Subtraction/Rainbow Facts to 20 |
|  | *Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies <br> *Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts <br> *Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation |
| Week 2 | Week 8 |
| Assessment | Addition and Subtraction |
|  | *Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies <br> *Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts <br> *Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation |
| Week 3 | Week 9 |
| Calendars (MR) | Addition and Subtraction |
| *Identify the data and determine the number of days between events using calendars | *Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies <br> *Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts <br> *Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation |
| Week 4 | Week 10 |
| Place Value (MR) | Assessment and Revision |
| *Recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines <br> *Partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation | *Numbers to 120 <br> *Addition and Subtraction |
| Week 5 | Week 11 |
| Place Value (MR) | Shapes |
| *Recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines <br> *Partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation | *Make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them |
| Week 6 |  |
| Teen Numbers and Assessment |  |
| *Calendars <br> *Place Value (numbers to 1000) |  |


| Year 2 Term 2 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Patterning with objects | 5 times tables \& division facts |
| *Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern | *Recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving. <br> *Multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies. |
| Week 2 | Week 7 |
| Patterning with objects | Fractions - halves |
| *Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern | *Identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events *Identify, describe and demonstrate quarter, half, three-quarter and full measures of turn in everyday situations |
| Week 3 | Week 8 |
| 2 times tables \& division facts | Fractions - quarters |
| *Recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving. <br> *Multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies. <br> *Assessment - Hundreds Chart to 120 | *Identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events *Identify, describe and demonstrate quarter, half, three-quarter and full measures of turn in everyday situations |
| Week 4 | Week 9 |
| 10 times tables \& division facts | Fractions - eighths |
| *Recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving. <br> *Multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies. | *Identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events *Identify, describe and demonstrate quarter, half, three-quarter and full measures of turn in everyday situations |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *Numbers to 1000 <br> *Patterning <br> *2 times tables/division <br> *10 times tables/division | *Numbers to 1000 <br> *Fractions - halves, quarters, eighths <br> *5 times tables/division |


| Year 2 Term 3 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Money | Time - hour |
| *Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation <br> *Assessment - Hundreds Chart to 120 | *Recognise and read the time represented on an analogue clock to the hour, half-hour and quarter hour <br> *Recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving |
| Week 2 | Week 7 |
| Money | Time - half hour |
| *Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation | *Recognise and read the time represented on an analogue clock to the hour, half-hour and quarter hour <br> *Recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving |
| Week 3 | Week 8 |
| Measurement - Length | Time - quarter past/quarter to (three-quarter time) |
| *Measure and compare objects based on length, capacity and mass using appropriate uniform informal units and small units for accuracy when necessary | *Recognise and read the time represented on an analogue clock to the hour, half-hour and quarter hour <br> *Recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving |
| Week 4 | Week 9 |
| Measurement - Capacity and Mass | Shapes |
| *Measure and compare objects based on length, capacity and mass using appropriate uniform informal units and small units for accuracy when necessary | *Recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as "opposite", "parallel", "curved" and "straight" |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *Money <br> *Length <br> *Capacity and Mass | *Time - hour half hour, quarter past, quarter to *Shapes |



| Year 3 Term 1 |  |
| :---: | :---: |
| Week 1 | Week 7 |
| Assessment | Add and Subtract 2 and $\mathbf{3}$ digit numbers Rainbow Facts to 100 |
|  | *Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator <br> *Follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns <br> *Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences <br> *Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator |
| Week 2 | Week 8 |
| Assessment | Add and Subtract 2 and 3 digit numbers Rainbow Facts to 100 |
|  | *Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator <br> *Follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns <br> *Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences <br> *Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator |
| Week 3 | Week 9 |
| Place Value/Numbers to $10 \mathbf{0 0 0}$ and Odd and Even Numbers Estimation (MR) | Add and Subtract 2 and $\mathbf{3}$ digit numbers Rainbow Facts to 100 |
| *Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10000 <br> *Estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations <br> *Odd and Even not in the curriculum, but I think it's important??? | *Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator <br> *Follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns <br> *Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences <br> *Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator |
| Week 4 | Week 10 |
| Place Value/Numbers to 10000 Estimation (MR) | Add and Subtract 2 and $\mathbf{3}$ digit numbers Rainbow Facts to 100 |
| *Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10000 <br> *Estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations | *Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator <br> *Follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns <br> *Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences <br> *Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator |
| Week 5 | Week 11 |
| Place Value/Numbers to 10000 Estimation (MR) | Revision and Assessment |
| *Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10000 <br> *Estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations | *Place Value <br> *Addition and Subtraction |

## Week 6

## Revision and Assessment

## *Place Value

| Week 1 | Week 6 |
| :---: | :---: |
| 10 times tables and division facts | Fractions - half and quarter |
| *Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies <br> *Recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts | *Recognise and represent unit fractions including $1 / 2,1 / 3$, $1 / 4,1 / 5$ and $1 / 10$ and their multiples in different ways; combine fractions with the same denominator to complete the whole |
| Week 2 | Week 7 |
| 5 times tables and division facts | Fractions - fifths |
| *Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies <br> *Recall and demonstrate proficiency with multiplication facts for 3, 4,5 and 10; extend and apply facts to develop the related division facts | *Recognise and represent unit fractions including $1 / 2,1 / 3$, $1 / 4,1 / 5$ and $1 / 10$ and their multiples in different ways; combine fractions with the same denominator to complete the whole |
| Week 3 | Week 8 |
| 3 times tables and division facts | Fractions - thirds |
| *Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies <br> *Recall and demonstrate proficiency with multiplication facts for 3, 4,5 and 10; extend and apply facts to develop the related division facts | *Recognise and represent unit fractions including $1 / 2,1 / 3$, $1 / 4,1 / 5$ and $1 / 10$ and their multiples in different ways; combine fractions with the same denominator to complete the whole |
| Week 4 | Week 9 |
| 4 times tables and division facts | Fractions - tenths |
| *Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagram and arrays, and using a variety of calculation strategies <br> *Recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts | *Recognise and represent unit fractions including $1 / 2,1 / 3$, $1 / 4,1 / 5$ and $1 / 10$ and their multiples in different ways; combine fractions with the same denominator to complete the whole |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *10x and 10\% <br> *5x and 5; <br> *3x and 3; <br> *4x and 4; | *Fractions - halves, quarters, fifths, thirds, tenths <br> *Times Tables |


| Year 3 Term 3 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Money | Time |
| *Recognise the relationships between dollars and cents and represent money values in different ways <br> *Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation | *Recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events <br> *Describe the relationship between hours and minutes on analogue and digital clocks, and read the time to the nearest minute |
| Week 2 | Week 7 |
| Money | Time |
| *Recognise the relationships between dollars and cents and represent money values in different ways <br> *Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation | *Recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events <br> *Describe the relationship between hours and minutes on analogue and digital clocks, and read the time to the nearest minute |
| Week 3 | Week 8 |
| Measure - Length | Shapes |
| *Identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates <br> *Measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings | *Make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses |
| Week 4 | Week 9 |
| Measure - Capacity and Mass | Angles |
| *Identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates <br> *Measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings | *Identify angles as measures of turn and compare angles with right angles in everyday situations |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *Money <br> *Capacity and Mass | *Time <br> *Shapes <br> *Angles |



| Year $4 \times$ Term 1 |  |
| :---: | :---: |
| Week 1 | Week 7 |
| Assessment | Addition |
| *Place Value not explicitly in new curriculum, but I think it's important? <br> **FACTORS NOT CURRICULUM - SHOULD BE TAUGHT?** | *Develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder <br> *Follow and create algorithms involving a sequence of steps and decisions that use addition or multiplication to generate sets of numbers; identify and describe any emerging patterns <br> *Find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations |
| Week 2 | Week 8 |
| Assessment | Addition |
|  | *Develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder <br> *Follow and create algorithms involving a sequence of steps and decisions that use addition or multiplication to generate sets of numbers; identify and describe any emerging patterns <br> *Find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations |
| Week 3 | Week 9 |
| Place Value/Numbers to 10000 \& Odd and Even Numbers | Subtraction |
| *Explain and use the properties of odd and even numbers | *Develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder <br> *Follow and create algorithms involving a sequence of steps and decisions that use addition or multiplication to generate sets of numbers; identify and describe any emerging patterns <br> *Find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations |
| Week 4 | Week 10 |
| Place Value/Rounding | Subtraction |
| *Choose and use estimation and rounding to check and explain the reasonableness to check and explain the reasonableness of calculations including the results of financial transactions | *Develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder <br> *Follow and create algorithms involving a sequence of steps and decisions that use addition or multiplication to generate sets of numbers; identify and describe any emerging patterns <br> *Find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations |
| Week 5 | Week 11 |
| Place Value/Rounding | Chance and Revision and Assessment |
| *Choose and use estimation and rounding to check and explain the reasonableness to check and explain the reasonableness of calculations including the results of financial transactions | *Describe possible everyday events and the possible outcomes of chance experiments and order outcomes or events based on their likelihood of occurring; identify independent or dependent events <br> *Conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results <br> ASSESSMENT <br> *Place Value <br> *Addition and Subtraction <br> *Chance |
| Week 6 |  |
| Revision and Assessment |  |
| *Place Value |  |


| Week 1 |
| :--- |
| $4 \& 6$ times tables and division facts |
| *Solve problems involving multiplying or dividing natural numbers by <br> multiples and powers of 10 without a calculator, using the multiplicative <br> relationship between the place value of digits <br> *Recall and demonstrate proficiency with multiplication facts up to $10 \times$ <br> 10 and related division facts; extend and apply facts to develop efficient <br> mental strategies for computation with larger numbers without a <br> calculator <br> *Solve problems involving multiplying or dividing natural numbers by <br> multiples and powers of 10 without a calculator, using the multiplicative <br> relationship between the place value of digits |


| Week 2 |  |
| :---: | :---: |
| 9 \& 7 times tables and division facts |  |
| *Solve problems involving multiplying or dividing natural numbers by | *S | multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits

*Recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator
*Solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits

| Week 3 |
| :---: |
| 8 times tables and division facts/multi-digit multiplication |

*Solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits
*Recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator
*Solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits

| Week 4 | Week 9 |
| :---: | :---: |
| Multi-digit multiplication | Time - reading timetables/24 hour time |
| *Solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits <br> *Recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator <br> *Solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits | *Solve problems involving the duration of time including situations involving "am" and "pm" and conversions between units of time |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *10x and 10 <br> *5x and 5; <br> * $3 x$ and $3 \div$ <br> *4x and 4; | *Multi-digit multiplication <br> *Multi-digit division <br> *Money <br> *Time |


| Year 4 Term 3 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Fractions - number lines, locate and represent | Measurement - Length/Temperature |
| *Find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation | *Interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units |
| Week 2 | Week 7 |
| Fractions - improper/mixed numerals | Measurement - Capacity/Mass |
| *Count by fractions including mixed numerals; locate and represent these fractions as numbers on a number line | *Interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units |
| Week 3 | Week 8 |
| Fractions to Decimals/Place Value | Measurement - Perimeter and Area |
| *Recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals | *Recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units <br> *Represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects |
| Week 4 | Week 9 |
| Fractions to Decimals/Place Value | Measurement - Perimeter and Area |
| *Recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals | *Recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units <br> *Represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *Fractions <br> *Fractions to Decimals | *Length <br> *Temperature <br> *Mass/Capacity <br> *Perimeter and Area |



| Year $5 \times$ Term 1 |  |
| :---: | :---: |
| Week 1 | Week 7 |
| Assessment | Division of Multidigit Numbers |
| *Addition and Subtraction of whole numbers not in curriculum, only multiplication and division??? | *Solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of answers <br> *Solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction <br> *Recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts <br> *Find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations |
| Week 2 | Week 8 |
| Assessment | Money |
|  | *Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation |
| Week 3 | Week 9 |
| Factors/Rounding/Estimation | Money |
| *Express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another <br> *Check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context <br> *Create and use algorithms involving a sequence of steps and decision and digital tools to experiments with factors, multiples and divisibility. Identify, interpret and describe emerging patterns. | *Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation |
| Week 4 | Week 10 |
| Factors/Rounding/Estimation | Revision/Assessment |
| *Express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another <br> *Check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context <br> *Create and use algorithms involving a sequence of steps and decision and digital tools to experiments with factors, multiples and divisibility. Identify, interpret and describe emerging patterns. | *Division of Multidigit Numbers <br> *Money |
| Week 5 | Week 11 |
| Multiplication of Multidigit Numbers | Probability |
| *Solve problems involving multiplication of larger numbers by one- or twodigit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of answers <br> *Solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction <br> *Recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts <br> *Find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations | *List the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely <br> *Conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results; use frequency to compare outcomes and estimate their likelihoods |
| Week 6 |  |
| Revision and Assessment |  |
| *Factors <br> *Rounding <br> *Estimation <br> *Multiplication of Multi-Digit Numbers |  |


| Year 5 Term 2 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Fractions - compare and order (number lines) | Fractions to Decimals |
| *Compare and order fractions with the same and related denominators including mixed numerals, applying knowledge of factors and multiples; represent these fractions on a number line | *Interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a number line <br> *Recognise that 100\% represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents |
| Week 2 | Week 7 |
| Fractions - compare and order (number lines) | Fractions to Decimals |
| *Compare and order fractions with the same and related denominators including mixed numerals, applying knowledge of factors and multiples; represent these fractions on a number line | *Interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a number line <br> *Recognise that $100 \%$ represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents |
| Week 3 | Week 8 |
| Fractions - addition and subtraction (same denominators) | Fractions/Decimals to Percentages |
| *Solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies | *Interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a number line <br> *Recognise that 100\% represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents |
| Week 4 | Week 9 |
| Fractions - addition and subtraction (related denominators) | Fractions/Decimals to Percentages |
| *Solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies | *Interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a number line <br> *Recognise that $100 \%$ represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *Fractions - compare and order <br> *Fractions - addition and subtraction (same denominators) <br> *Fractions - addition and subtraction (related denominators) | *Fractions to Decimals <br> *Fractions and Decimals to Percentages |


| Year 5 Term 3 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Measurement - Length | Measurement - Perimeter and Area (irregular shapes) |
| *Choose appropriate metric units when measuring the lengths, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure | *Solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units |
| Week 2 | Week 7 |
| Measurement - Mass | Time - 12 hour and 24 hour |
| *Choose appropriate metric units when measuring the lengths, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure | *Compare 12 - and 24 -hour time systems and solve practical problems involving the conversion between them |
| Week 3 | Week 8 |
| Measurement - Capacity | Time - 12 hour and 24 hour |
| *Choose appropriate metric units when measuring the lengths, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure | *Compare 12 - and 24 -hour time systems and solve practical problems involving the conversion between them |
| Week 4 | Week 9 |
| Measurement - Perimeter and Area (regular shapes) | Angles (protractors) |
| *Solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units | *Estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
| *Length <br> *Mass <br> *Capacity <br> *Perimeter and Area (regular shapes) | *Perimeter and Area (irregular shapes) <br> *Time - 12 hour and 24 hour <br> *Angles (protractors) |



| Year $6 \times$ Term 1 |  |
| :---: | :---: |
| Week 1 | Week 7 |
| Assessment | Addition and Subtraction of multi-digit numbers |
|  | *Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using he properties of numbers and operations <br> *Create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns |
| Week 2 | Week 8 |
| Assessment | Multiplication and Division of multi-digit numbers |
|  | *Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using he properties of numbers and operations <br> *Create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns |
| Week 3 | Week 9 |
| Factors/Rounding/Estimation | Multiplication and Division of multi-digit numbers |
| *Express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another <br> *Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using he properties of numbers and operations <br> *Create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns | *Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using he properties of numbers and operations <br> *Create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns |
| Week 4 | Week 10 |
| Factors/Rounding/Estimation | BEDMAS/BODMAS/BIDMAS |
| *Express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another <br> *Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using he properties of numbers and operations <br> *Create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns | *Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using he properties of numbers and operations <br> *Create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns |
| Week 5 | Week 11 |
| Addition and Subtraction of multi-digit numbers | Assessment/Revision |
| *Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using he properties of numbers and operations <br> *Create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns |  |
| Week 6 |  |
| Revision and Assessment |  |
| *Place Value |  |


| Year 6 Term 2 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Patterning/Growing patterns | Fractions to Decimals |
| *Recognise and use rules that generate visually growing patterns and number patterns involving rational numbers <br> *Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using he properties of numbers and operations | *Multiply and divide decimals by multiples of powers of 10 without a calculator, applying knowledge of 10 without a calculator, applying knowledge of place value and proficiency with multiplication facts; using estimation and rounding to check the reasonableness of answers |
| Week 2 | Week 7 |
| Fractions - Equivalent Fractions | Decimals - Addition and Subtraction |
| *Apply knowledge of equivalent to compare, order and represent common fractions including halves, thirds and quarters on the same number line and justify their order | *Apply knowledge of place value to add and subtract decimals, using digital tools where appropriate; use estimation and rounding to check the reasonableness of answers |
| Week 3 | Week 8 |
| Fractions - Compare and Order | Fractions and Decimals to Percentages |
| *Apply knowledge of equivalent to compare, order and represent common fractions including halves, thirds and quarters on the same number line and justify their order | *Solve problems that require finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts, choosing efficient calculation strategies and using digital tools where appropriate <br> *Approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies <br> *Use mathematical modelling to solve practical problems, involving rational numbers and percentages, including in financial contexts, formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made |
| Week 4 | Week 9 |
| Fractions - Addition and Subtraction | Fractions and Decimals to Percentages |
| *Solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions | *Solve problems that require finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts, choosing efficient calculation strategies and using digital tools where appropriate <br> *Approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies <br> *Use mathematical modelling to solve practical problems, involving rational numbers and percentages, including in financial contexts, formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
|  |  |


| Year 6 Term 3 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Money | Measurement - Mass |
| *Recognise situations, including financial contexts, that use integers; locate and represent integers on an umber line and as coordinates on the Cartesian place <br> *Use mathematical modelling to solve practical problems, involving rational numbers and percentages, including in financial contexts, formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made | *Convert between metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem |
| Week 2 | Week 7 |
| Money | Perimeter and Area |
| *Recognise situations, including financial contexts, that use integers; locate and represent integers on an umber line and as coordinates on the Cartesian place <br> *Use mathematical modelling to solve practical problems, involving rational numbers and percentages, including in financial contexts, formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made | *Establish the formulate for the area of a rectangle and use it to solve practical problems |
| Week 3 | Week 8 |
| Measurement - Length | Perimeter and Area |
| *Convert between metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem | *Establish the formulate for the area of a rectangle and use it to solve practical problems |
| Week 4 | Week 9 |
| Measurement - Capacity | Angles |
| *Convert between metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem | *Identify the relationships between angles on a straight line, angles at a point and vertically opposite angles; use these to determine unknown angles, communicating reasoning |
| Week 5 | Week 10 |
| Revision - Assessment | Assessment - Revision |
|  |  |


| Year $6 \times$ Term 4 |  |
| :---: | :---: |
| Week 1 | Week 6 |
| Timetables | Data Collection and Representation |
| *Interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys | *Interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools; compare distributions in terms of mode, range and shape <br> *Identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions <br> *Plan and conduct statistical investigations by posing and refining questions or identifying a problem and collecting relevant data; analyse and interpret the data and communicate findings within the context of the investigation <br> *Recognise that probabilities lie on numerical scales of 0-1 or 0\%-100\% and use estimation to assign probabilities that events occur in a given context, using common fractions, percentages and decimals <br> *Conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools; compare observations with expected results and discuss that effect on variation of increasing the number of trials |
| Week 2 | Week 7 |
| Cartesian Plane | Revision |
| *Locate points in the 4 quadrants of a Cartesian plane; describe changes to the coordinates when a point is moved to a different position in the plane <br> *Recognise and use combinations of transformations to create tessellations and other geometric patterns, using dynamic geometric software where appropriate | Opportunity to revise previous topics |
| Week 3 |  |
| Shapes |  |
| *Compare the parallel cross-sections of objects and recognise their relationships to right prisms |  |
| Week 4 |  |
| Data Collection and Representation \& Chance |  |
| *Interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools; compare distributions in terms of mode, range and shape <br> *Identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions <br> *Plan and conduct statistical investigations by posing and refining questions or identifying a problem and collecting relevant data; analyse and interpret the data and communicate findings within the context of the investigation <br> *Recognise that probabilities lie on numerical scales of 0-1 or 0\%-100\% and use estimation to assign probabilities that events occur in a given context, using common fractions, percentages and decimals <br> *Conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools; compare observations with expected results and discuss that effect on variation of increasing the number of trials |  |
| Week 5 |  |
| Report Assessment/Revision |  |
| *Report Assessment |  |

## Reception

| Thread | Content Descriptor | What to cover | Vocabulary |
| :---: | :---: | :---: | :---: |
| Number | Name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals (AC9MFN01) | * Read and write numbers from 0 to 30 <br> * Count forwards and backwards within 30 <br> * Collecting a quantity of objects <br> * Matching numbers (oral command) to numerals (written) <br> * Matching numerals to quantities <br> * Identify and locate numbers (including on number lines) <br> * One Less, One More <br> * Ordinal numbers <br> * Counting forwards and backwards to 30 <br> * Engage in picture books and rhymes around counting/counting stories from other cultures <br> * Circle counting games <br> * Count on from any number between 0 and 30 <br> * Ordinal numbers | above after backwards before below count (on, back, forward) first forwards fourth fifth less more next one less one more second teen Number third zero |
|  | Recognise and name the number of objects within a collection up to 5 using subitising <br> (AC9MFN02) | * Subitise regular patterns initially up to 6 and then up to 10 <br> * Subitise irregular patterns initially up to 6 and then up to 10 <br> * Introduce doubles | doubles irregular regular subitise |
|  | Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning (AC9MFN03) | * Compare and order numbers within 30 <br> * Compare and order quantities within 30 <br> * Connect number names to quantities <br> * Understand that the arrangement of objects does not affect the quantity <br> * Develop 1 to 1 correspondence | compare how many? order |
|  | Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts (AC9MFN05) | * Rainbow Facts to 10 <br> * Number Bonds within 10 <br> * Understand and use 'more than' and 'less than' <br> * Introduce and use Part-Part-Whole strategy <br> * Recognise relationship between addition and subtraction <br> * Compare two numbers by subtraction <br> * Solve picture problems involving comparison by subtraction <br> * Compare quantities of collections, explaining the differences | between big/bigger/biggest collect/collections compare <br> digit (2-digit number) large/larger/largest less/less than more/more than nearly numeral(s) order quantity <br> same as/not the same as small/smaller/smallest |
|  | Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies (AC9MFN05) | * Use manipulatives and visual representations of addition and subtraction within 10 <br> * Make and complete number bonds within 10 initially and then 20 <br> * Rainbow Facts to 10 <br> * Tell number stories <br> * Solve simple worded problems involving addition and subtraction | part-part-whole add/adding/added/addition altogether answer combine double equal(s) each how many take away |
|  | Represent practical situations involving equal sharing and grouping with physical and virtual materials and use counting or subitising strategies (AC9MFN06) | * Use manipulatives and visual representations of equal sharing and grouping <br> * Tell number stories <br> * Solve simple worded problems involving equal sharing and grouping | equal groups grouping make share/sharing |
| Algebra | Recognise, copy and continue repeating patterns represented in different ways (AC9MFA01) | * Sort and classify objects <br> * Copy and identify patterns $\mathrm{AB}, \mathrm{AAB}, \mathrm{ABC}$ <br> * Copy, continue and identify patterns $A B$, $A A B, A B B, A B C$ <br> $\star$ Create patterns $A B, A A B, A B B, A B C$ <br> * Observe patterns in the world around us | arrange classify collect/collections continue copy different exactly list match objects pattern same shapes sort |

## MATHS CURRICULUM

## Reception

| Thread | Content Descriptor | What to cover | Vocabulary |
| :---: | :---: | :---: | :---: |
| Measurement | Identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning (AC9MFM01) | * Using language such as tall, short, wide, long, high <br> * Directly comparing pairs of objects and being able to explain why <br> $\star$ Starting two events at the same time to decide which takes longer | Capacity compare/comparing duration explaining high length long/longer mass reasoning short tall wide |
|  | Sequence days of the week and times of the day including morning, lunchtime, afternoon and night time, and connect them to familiar events and actions <br> (AC9MFM02) | * Sequence days of the week <br> * Order images of daily events and justify placement <br> * Use vocabulary such as 'This happened first', 'This happened next' <br> * Discussing yesterday, today and tomorrow | days of the week first next today tomorrow yesterday |
| Space | Sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons (AC9MFSP01) | * Sort collections of shapes into groups based on different features (eg number of sides, colour, size) and describe how they have been sorted <br> $\star$ Create a picture using a variety of shapes and a range of materials, including objects to trace around <br> * Recognise and name shapes that are part of everyday items (e.g. rectangles, squares, triangles and circles) | Circle(s) colour objects rectangles sides side size sort square(s) triangle (s) |
|  | Describe the position and location of themselves and objects in relation to other people and objects within a familiar space (AC9MFSP02) | * Use positional language to describe where objects are, such as 'inside', 'underneath', 'on top of', 'in between' | behind in between inside/inside of location on top of position underneath |
| Statistics | Collect, sort and compare data represented by objects and image in response to given investigative questions that relate to familiar situations (AC9MFSTOI) | « Collect and sort data and justify reasoning <br> * Collect data to answer Yes/No questions <br> * Create pictograms based on simple questions | collect compare data no question reason represent/representation sort yes |

## Year 1

## Thread Number

 Content Descriptor
## What to cover

Vocabulary
Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts
(AC9M1N01)

| Partition one- and two-digit <br> numbers in different ways <br> using physical and virtual <br> materials, including <br> partitioning two-digit <br> numbers into tens and ones <br> (AC9M1N02) |
| :---: |
| Quantify sets of objects, to at <br> least 120, by partitioning <br> collections into equal groups <br> using number knowledge <br> and skip counting <br> (AC9M1N03) |
| Add and subtract numbers <br> within 20, using physical and <br> virtual materials, part-part- <br> whole knowledge to 10 and <br> a variety of calculation <br> strategies (AC9M1N04) |
|  |
|  |

Use mathematical modelling
to solve practical problems involving additive situations, including simple money transactions; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem (AC9M1N05)
Use mathematical modelling to solve practical problems involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem
(AC9M1N06)
$\star$ Count forwards and backwards within 120
compare

* Read numbers within 120 on number lines
* Read and write numbers from 0 to 120
* Find the number which is 1 or 10 more or less than a number within 120
* Compare and order numbers within 120
* Describe, continue and create number patterns to 120
$\star \quad$ Read and write ordinal numbers
$\star$ Read and write numbers from 0 to 120
* Write a 2-digit number in tens and ones
* Compare and order numbers to 120 using number lines, number charts and place value
backwards forwards number lines numerals order ordinal numbers pattern(s)
* Break numbers into 2 groups
* Create number bonds
* Use part-part-whole strategy
$\star$ Estimate the number of objects in a group
* Count numbers to 120 by making tens
* Write 3-digit numbers in Hundreds, Tens and Ones
$\star$ Partition numbers using Hundreds, Tens and Ones
$\star$ Know the meaning of addition and subtraction
* Tell number stories for addition and subtraction sentences
* Solve 1-step worded problems by addition or subtraction
* Add and subtract using number bonds, number lines and part-part-whole strategy
* Write addition and subtraction number sentences
* Understand the symbol for addition (+) and subtraction (-)
* Add and subtract numbers to make 10 (Rainbow Facts)
* Use the 'counting on' method to add
* Use the 'counting back' method to subtract
* Add two numbers using doubles facts (up to $10+10$ )
* Subtract two numbers using halving facts
* Write a family of addition and subtraction facts
* Create and read tallies
* Recognise and name coins and notes
* Order coins and notes according to their value
* Add and subtract amount of money in a group of coins or notes of the same value
* Compare amounts of money
compare
count
digit(s)
hundreds/hundreds place numeral ones/ones place order tens/tens place value
collection digit(s) estimate/estimation
equal groups quantity
skip counting
difference between
digit(s)
doubles
equals sign
equal to estimate/estimation

> join
minus
near doubles
number line numeral
ones/ones place part-part-whole
plus
partition/split
rainbow Facts
subtract/subtraction
sum
tally/tallies
ten(s)/tens place
total/in total
trade
turn around
buy
cen
cents
coin(s)
compare
cost
dollars
exchange
money
notes
sell
sold

* Group or share a collection of objects
equal groups
equal parts
group(s)
half
halves
one half
part
sharing
whole
* Group or share a collection of objects into four equal groups including objects and numbers
* Solve 1-step worded problems involving grouping and sharing


## MATHS CURRICULUM <br> Year 2

## Content Descriptor

Recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines
(AC9M2NOI)

Partition, rearrange, regroup and rename two- and three-digit numbers using standard and nonstandard groupings; recognise the role of a zero digit in place value notation (AC9M2N02)

Recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving
(AC9M2N04)

Add and subtract one- and twodigit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies (AC9M2N04)
$\star$ Recognise and read numbers within 1000
Vocabulary
compare

* Read and write numbers from 0 to 1000
* Compare and order numbers within 1000
* Describe, continue and create number patterns within 1000
* Read and write ordinal numbers
* Partition and write 2 and 3 digit numbers by place value
* Partition 2 and 3 digit numbers using number bonds and part-part-whole strategy by non-standard groupings
* Find a number which is 1,10 or 100 more or less than a number within 1000
$\star$ Compare and order numbers using number lines, number charts and place values
* Understand the role of zero in place value
* Recognise and name one half, one quarter and one eighth of a whole which is divided into equal parts
* Recognise and name the fractions $1 / 2,1 / 4$, and $1 / 8$
* Divide collections into 2,4 and 8 equal groups
* Divide numbers into 2,4 and 8 equal groups
* Find a fraction that must be added to a given fraction to make a whole
$\star$ Compare and order the unit fractions of $1 / 2,1 / 4,1 / 8$
* Find the missing number in an addition or subtraction sentences
* Add and subtract using Part-Part-Whole strategy
* Add and subtract within 20 using split (number bonds), count on/count back, jump and doubles/halving facts strategies
* Write addition and subtraction fact families (Rainbow Facts to $10,100,1000$ )
* Add 1-digit numbers to 2-digit numbers without and with regrouping
* Subtract 1-digit numbers from 2-digit numbers without and with regrouping
* Add and subtract two 2-digit and two 3-digit numbers without and with regrouping
* Add and subtract 2- and 3-digit numbers without and with regrouping (introduce vertical addition/subtraction)
backwards/forwards number lines numerals order
ordinal numbers
pattern(s)
compare count digit(s)
hundreds/hundreds place
numeral
ones/ones place order
tens/tens place value
equal groups equal parts group(s) half halves one half part sharing whole
difference between digit(s) doubles
equals sign equal to estimate/estimation join minus
near doubles number line numeral
ones/ones place part-part-whole plus
partition/split
rainbow Facts
subtract/subtraction sum
tally/tallies
ten(s)/tens place
total/in total trade turn around arrays
* Make connections between skip counting and multiplication
* Know that numbers can be multiplied in any order to get the same answer
* Write multiplication number sentences
* Solve 1-step worded multiplication problems
* Multiply numbers within the multiplication tables of 2,5, 10
* Understand multiplication and division as equal groups
* Understand multiplication as repeated addition
* Understand division as repeated subtraction
* Represent multiplication and division as arrays
* Recognise and name coins and notes
* Count and tell the amount of money in a group of coins or notes
* Make an amount of money using a group of coins or notes
* Exchange money
* Compare amounts of money
* Add and subtract small quantities of coins and notes
* Give change from \$1,\$2,\$5 and \$10
* Identify equivalent values (e.g. $2 \times 5 \mathrm{c}=1 \times 10 \mathrm{c}$ )
$\star$ Solve 1-step worded questions involving money
column/row equal groups of exact groups of group in lots of multiply multiplication multiplied by repeated addition represents

Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation (AC9M2N06)

## Content Descriptor

Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern
(AC9M2A01)

Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts
(AC9M2A02)
Recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving (AC9M2A03)

Measure and compare objects based on length, capacity and mass using appropriate uniform informal units and small units for accuracy when necessary
(AC9M2M01)

Identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events (AC9M2M03)

Identify the date and determine
the number of days between events using calendars
(AC9M2M03)
Recognise and read the time represented on an analog clock to the hour, half-hour and quarter hour (AC9M2M04)

Identify, describe and demonstrate quarter, half, threequarter and full measures of turn in everyday situation (AC9M2M05) Recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as "opposite", "parallel", "curved"
and "straight" (AC9M2SP01)
and "straight" (AC9M2SPO
dimensional representations of a familiar space; move positions by following directions and pathways
(AC9M2SP02)

What to cover
Vocabulary
« Recognise and describe growing patterns and identify
continue the unit of growth
$\star \quad$ Create growing patterns using objects and describe the unit of growth

* Create growing patterns using numbers and describe the unit of growth
* Identify missing elements in patterns
* Identify missing elements in a number sentence
* Understand relationship between addition and subtraction
* Use a range of strategies to solve addition and subtraction problems involving using doubles/halving, counting on, counting back, bridging to 10
$\star$ Understand relationship between multiplication and division
* Recall multiplication and division facts for twos, fives and tens
* Look for patterns in multiplication and division facts
* Use informal units to measure the length of objects and compare them
* Use informal units of measure the weight of objects and compare them
* Use informal units to measure the capacity of objects and compare them
$\star$ Compare the capacity of 3 or more containers
* Recognise and name one half, one quarter and one eighth of a whole which is divided into equal parts
$\star$ Recognise and name the fractions $1 / 2,1 / 4$, and $1 / 8$
* Divide collections into 2,4 and 8 equal groups
* Divide numbers into 2,4 and 8 equal groups
* Find a fraction that must be added to a given fraction to make a whole
* Compare and order the unit fractions of $1 / 2,1 / 4,1 / 8$
* Read and write the date daily
$\star$ Connect the month to the number (e.g. April - 4)
$\star$ Use a calendar to identify upcoming events
* Understand the parts of a clock
* Understand the hour hand and the clock numbers
* Understand the minute hand and that each number represents 5 minutes
$\star$ Read a clock to the half-hour and know it is 30 mins
* Understand why 15 mins is a quarter
* Read a clock to quarter past
* Read a clock to quarter to
$\star$ Investigate hands turning on a clock
* Understand half turn, quarter turn, three-quarter turn and full turn
* Recognise and compare a variety of shapes
* Classify a collection of shapes according to their features
* Recognise shapes in the environment
$\star$ Understand the term two-dimensional
* Understand and follow directions using positional language
* Give directions using positional language
* Interpret maps of familiar places and identify the position of key features
clock face
half past
hour/hour hand
quarter past/to
anti-clockwise clockwise


## MATHS CURRICULUM

## Year 2

|  | Acquire data for categorical variables through surveys, observation, experiment and using digital tools; sort data into relevant categories and display data using lists and tables (AC9M2ST01) | $\star$ Understand why people collect data <br> * Collect and record data for yes/no questions <br> * Collect and record data for questions that have a set of answers (e.g. Favourite Fruit) <br> * Record data in a variety of ways | collect/collecting data image(s) question record/recording represent(s)/represe ntation symbols tally marks variables |
| :---: | :---: | :---: | :---: |
|  | Create different graphical representations of data using software where appropriate; compare the different representations, identify and describe common and distinctive features in response to questions (AC9M2ST02) | $\star$ Record data in a variety of ways <br> * Read the data provided <br> * Compare the data using frequencies <br> * Discuss the findings | collect/collecting data image(s) question <br> record/recording represent(s)/represe ntation symbols tally marks variables |

## Content Descriptor

Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10000 (AC9M3N01)

Recognise and represent unit fractions including $1 / 2,1 / 3,1 / 4$, $1 / 5$ and $1 / 10$ and their multiples in different ways; combine fractions with the same denominator to complete the whole (AC9M3N02)

## Add and subtract two- and

 three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator (AC9M3N03)Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies
(AC9M3N04)

Estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations (AC9M3N05)
Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation (AC9M3N06)

Follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns (AC9M3N07)

## What to cover

* Read and write numbers within 10000
* Compare and order numbers within 10000
* Write 5-digit numbers in Ten thousands, thousands, hundreds, tens and ones
* Understand Place Value and Expanded Form
$\star \quad$ Identify the values of digits in numbers
* Continue, describe and create number patterns
* Recognise and name $1 / 2,1 / 3,1 / 4,1 / 5$ and $1 / 10$
* Recognise the multiples of $1 / 2,1 / 3,1 / 4,1 / 5$ and $1 / 10$ to create a whole
* Divide collections and numbers into 2, 3, 4, 5, 8 and 10 equal groups
* Find a fraction that must be added to a given fraction to make a whole
* Compare and order the unit fractions of $1 / 2,1 / 3,1 / 4,1 / 5$, 1/10
* Write fractions in correct order on a number line
* Find 1, 10, 100 or 1000 more or less than a given number
* Add up to 4-digit numbers without and with regrouping
* Subtract up to 4-digit numbers without and with regrouping
* Use the strategy of vertical addition and subtraction up to 4-digits
« Know that numbers can be multiplied in any order to get the same answer
* Write multiplication number sentences
* Solve 1-step worded multiplication problems
* Multiply by zero and tens
* Understand multiplication and division as equal groups
* Understand multiplication as repeated addition
* Understand division as repeated subtraction
* Represent multiplication and division as arrays
* Multiply 2-digit numbers by single digits or 2-digit numbers using manipulatives, pictorial, area model, lattice model and traditional method
$\star$ Estimate the quantity of objects in collections
* Estimate the answers of calculations based on rounding to the nearest 10

Vocabulary
compare
backwards/forwards number lines numerals order
ordinal numbers pattern(s)
equal groups
equal parts
fraction(s)
group(s)
half
halves
one half part
sharing whole

Digit(s)
Partition
Ten Thousands (TTh)
Thousands (Th)
Hundreds (H)
Tens ( T )
Ones (O)
area model arrays
divide/division equal to
equal groups
lattice model multiply/multiplication number sentences repeated strategy/strategies traditional method
estimate
rounding sensible estimation
altogether amount by
divide/divided by double/doubles/ doubling equal/equal groups groups of half/halves/halving lots of multiply/multiplication number sentence product quotient share shared between times zero division
doubles/doubling halves/halving multiplication patterns

## Year 3

|  | Content Descriptor | What to cover | Vocabulary |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathbf{0} \\ & \frac{0}{0} \\ & \frac{0}{\mathbf{O}} \end{aligned}$ | Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences (AC9M3A01) | $\star$ Understand relationship between addition and subtraction <br> * Using knowledge of addition and subtraction as inverse operations to find unknown values in number sentences | addition inverse number sentence(s) relationship solve subtraction unknown value |
|  | Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator (AC9M3A02) | $\star$ Use a range of strategies to solve addition and subtraction problems involving using doubles/halving, counting on, counting back, bridging to 10 | bridging to 10 counting on counting back doubles/doubling halves/halving strategy/strategies |
|  | Recall and demonstrate proficiency with multiplication facts for $3,4,5$ and 10 ; extend and apply facts to develop the related division facts (AC9M3A03) | * Multiply numbers within the multiplication tables of 2, 3, 4, 5 and 10 <br> * Understand multiplication and division as equal groups <br> * Understand multiplication as repeated addition <br> * Understand division as repeated subtraction <br> * Represent multiplication and division as arrays | arrays division multiplication repeated represent solve times table |
|  | Identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates (AC9M3M01) | $\star$ Introduce metric units <br> * Identify best units and tools to use for length - mm, cm or m <br> * Identify best units and tools to use for weight - g or kg <br> * Identify best units and tools to use for capacity - ml and L | ```capacity centimetre(s) gram(s) kilogram(s) length litre(s)``` |
|  | Measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings (AC9M3M02) | $\star$ Measure the length of objects using cm and m and compare them <br> * Measure the weight of objects using g and kg and compare them <br> * Measure the capacity of objects using ml and L and compare them | millilitre(s) millimetre(s) weight |
|  | Recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events (AC9M3M03) | * Read and write the date daily <br> * Connect the month to the number (e.g. April - 4) <br> * Connect months to the number of days in each month <br> * Use a calendar to identify upcoming events <br> * Connect months to seasons |  |
|  | Describe the relationship between the hours and minutes on analog and digital clocks, and read the time to the nearest minute (AC9M3M04) | * Understand how to read a digital clock <br> * Understand the hour hand and the clock numbers <br> * Understand the minute hand and that each number represents 5 minutes <br> * Read a clock to the nearest minute | anti-clockwise clockwise clock face half past hour/hour hand minute/minute hand quarter past/to |
|  | Identify angles as measures of turn and compare angles with right angles in everyday situations (AC9M3M05) | * Identify right angles <br> * Identify angles as being larger than right angles <br> * Identify angles that are smaller than right angles as acute <br> * Identify right angles inside and outside the classroom | acute angles larger right smaller |
|  | Recognise the relationships between dollars and cents and represent money values in different ways (AC9M3M06) | $\star$ Understand that $\$ 1.00$ is 100 cents <br> * Represent money amounts in different ways using part-part-whole knowledge (e.g. $\$ 1$ can be $\$ 1,50 c+50 c, 20 c \times 5,10 c \times 10$, etc) | cents dollars money represent values |
| $\begin{aligned} & 0 \\ & \text { U } \\ & 0 \\ & \text { on } \end{aligned}$ | Make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses (AC9M3SP01) | $\star$ Understand the term three dimensional and how it differs from two dimensional <br> $\star$ Classify a collection of 3D objects based on their features | 2D/3D cone(s) cube(s) cylinder(s) prism(s) pyramid(s) sphere(s) |
|  | Interpret and create two dimensional representations of familiar environments, locating key landmarks and objects relative to each other (AC9M3SP02) | « Understand the term two-dimensional <br> * Read and interpret simple maps and identify the position of key features <br> * Create simple 2D maps of familiar environments <br> * Create simple keys indicating landmarks | above/below forwards/backwards in front/behind left/right next to on top of/ under straight ahead |

## MATHS CURRICULUM

## Year 3

|  | Content Descriptor | What to cover | Vocabulary |
| :---: | :---: | :---: | :---: |
|  | Acquire data for categorical and discrete numerical variables to address a question of interest or purpose by observing, collecting and accessing data sets; record the data using appropriate methods including frequency tables and spreadsheets (AC9M3ST01) | * Understand why people collect data <br> * Collect and record data for yes/no questions <br> * Interpret data from a range of data sets <br> * Read data when the key equals more than one |  |
|  | Create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context (AC9M3ST02) | * Record data in a variety of ways - tables with tallies, column graphs, bar graphs, lists, pictographs <br> * Select appropriate formats or layout styles based on the data | bar graphs column graphs lists pictographs table(s) tally/tallies |
|  | Conduct guided statistical investigations involving the collection, representation and interpretation of data for categorical and discrete numerical variables with respect to questions of interest (AC9M3ST03) | * Collect and record data for questions that have a broader set of answers (e.g. instead of 'What's your favourite colour', to 'What is the most popular colour amongst Year 3 students in our class?') <br> * Include features of graphs including Titles, Labels (x and $y$ axis) and Keys | $\begin{gathered} \text { collect } \\ \text { data } \\ \text { key } \\ \text { label } \\ \text { question } \\ \text { record } \\ \text { statistics } \\ \text { titles } \\ \text { x-axis } \\ \text { y-axis } \\ \hline \end{gathered}$ |
|  | Identify practical activities and everyday events involving chance; describe possible outcomes and events as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' explaining reasoning (AC9M3P01) | $\star$ Predicting whether a range of events involving chance are likely or unlikely <br> * Identify events as certain or impossible and explain reasoning | certain identify impossible likely possible unlikely |
|  | Conduct repeated chance experiments; identify and describe possible outcomes, record the results, recognise and discuss the variation (AC9M3P02) | * Identify the possible outcomes of a chance experiment (e.g. tossing a coin, throwing a dice, colour spinners) <br> $\star$ Create charts to record results of chance experiments <br> * Explain what the data shows | data experiment outcomes possible record results |

Content Descriptor
Recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals (AC9M4NO1)

Explain and use the properties of odd and even numbers
(AC9M4N02)

Find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation (AC9M4N03)

Count by fractions including mixed numerals; locate and represent these fractions as numbers on number lines (AC9M4N04)

Solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits
(AC9M4N05)
Develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder
(AC9M4N06)

Choose and use estimation and rounding to check and explain the reasonableness of calculations including the results of financial transactions (AC9M4N07)
Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial
contexts; formulate the problems using number sentences and choose efficient calculation strategies, using digital tools where appropriate; interpret and
communicate solutions in terms of the situation (AC9M4N08)
Follow and create algorithms
involving a sequence of steps and decisions that use addition or multiplication to generate sets of numbers; identify and describe any emerging patterns
(AC9M4N09)

## What to cove

* Read numbers within 100000
* Write numbers in numerals within 100000
decimal (point/place)
$\star$ Write 6-digit numbers in words
Ten Thousands (TTh)
* Represent numbers within 100000 Thousands (Th)
$\star$ Order numbers within 100000
Hundreds (H)
* Round a whole number up to 5 digits to the nearest ten, hundred or thousand

Ones (O)
tenths ( t )
hundredths (h)

* Write numbers up to 2 decimal places
* Explain what makes an odd number odd or even
* Identify odd and even numbers
even
* Tell if the sum and difference of odd and/or even numbers is odd or even
* Tell if the product of odd and/or even numbers is odd or even
* Understand equivalent fractions
common denominator
* Identify and calculate equivalent fractions
* Express a fraction in its simplest form
* Compare fractions using equivalent fractions
* Convert between improper fractions and mixed number fractions
* Convert fractions to decimals using division
* Add and subtract two fractions with the same denominator
* Add and subtract fractions from whole numbers
$\star$ Write simple fractions with different denominators on a number line ( $1 / 2,1 / 3,1 / 4,1 / 5,1 / 6,1 / 8,1 / 10$ )
$\star$ Understand the rule when multiplying or dividing by 10
digit(s)
multiples place value
* Find $1,10,100,1000$ or 10000 more or less than a given number
* Add and subtract up to 5-digit numbers efficiently without and with regrouping
* Multiply up to $3 \times 3$-digit numbers using area model, lattice model or traditional method
* Divide using lattice model or short division
* Solve 2-step worded problems using a variety of strategies
* Round a whole number up to 4 digits to the nearest ten, hundred or thousand
* Estimate the quantity of objects in collections
* Estimate the answers of calculations based on rounding to the nearest 10 or 100
* Know that numbers can be multiplied in any order to get the same answer
* Write multiplication and division fact families
* Add and subtract amounts of money
* Multiply and divide quantities of money
* Complete 2-step worded questions involving money
add/addition answer difference divide/division multiply/multiplication product quotient subtract/subtraction sum
$\star$ Find unknown quantities in number sentences
* Use the part-part-whole strategy to find unknown quantities in number sentences
* Identify equivalent number sentences
* Use multiplication and division facts to identify unknown quantities in number sentences
division
multiplication number sentences part-part-whole patterns quantities unknown


## Year 4

## Content Descriptor

Find unknown values in numerical

## What to cove

$\star$ Understand relationship between addition and Vocabulary add/addition
equations involving addition and subtraction, using the properties of numbers and operations
(AC9M4A01) subtraction

* Using knowledge of addition and subtraction as inverse operations to find unknown values in number sentences
* Use a range of strategies to solve addition and subtraction problems
« Multiply numbers within the multiplication tables up to $10 \times 10$
* Recall related division facts for multiplication tables up to $10 \times 10$
$\star$ Use the vocabulary product and quotient vision facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator (AC9M4A02)
Interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units (AC9M4M01)

Recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units (AC9M4M02) Solve problems involving the duration of time including situations involving "am" and "pm" and conversions between units of time (AC9M4M03)
Estimate and compare angles using angle names including acute, obtuse, straight, angle, reflex and revolution, and recognise their relationship to a right angle (AC9M4M04)

* Identify best units and tools to use for length - mm, cm or m
* Identify best units and tools to use for mass - g or kg
* Identify best units and tools to use for capacity - ml and L
* Identify unit and tools used to measure temperature - Celsius

Recall and demonstrate proficiency with multiplication facts up to $10 \times 10$ and related

* Measure and compare areas in square centimetres
* Measure and compare areas in square metres
* Measure perimeter
* Find the perimeter and area of regular shapes
* Solve worded problems
* Convert between units of time (e.g. 60 minutes in an hour, 60 seconds in a minute)
$\star$ Read and interpret a range of timetables
$\star$ Classify angles
* Know the degrees of an angle and their relationship to a right angle
division multiplication product quotient repeated represent solve times table capacity Celsius
centimetre(s) gram(s)/kilogram(s) length mass metre(s) millilitre(s)/ litre(s) millimetre(s) temperature
area
measure
perimeter regular
hour(s)
minute(s)
timetable(s) unit(s)/ units of time
acute
angle degrees obtuse reflex revolution right straight
Represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects (AC9M4SP01) Create and interpret grid
reference systems using grid references and directions to
locate and describe positions and pathways (AC9M4SP02)
Recognise line and rotational symmetry of shapes and create symmetrical patterns and pictures, using dynamic geometric software where appropriate (AC9M4SP03)

Acquire data for categorical and
discrete numerical variables to address a question of interest or purpose, using digital tools;
represent data using many-to-one pictographs, column graphs and other displays or visualisations; interpret and discuss the information that has been created
direction
key features landmarks legend map
scale
symmetry symmetrical patterns

* Identify symmetry of shapes and in the environment
* Create symmetrical patterns
* Make 3D shapes
* Recognise how familiar shapes and objects are used in logos and other graphics
* Identify 3D shapes in the environment
* Draw pictures that involve combining familiar shapes
* Read a legend and a scale on a map
* Follow directions on a map
* Read and interpret simple maps and identify the position of key features
* Create keys indicating landmarks
hree dimensional



## MATHS CURRICULUM

## Year 4

|  | Content Descriptor | What to cover | Vocabulary |
| :---: | :---: | :---: | :---: |
| $\tilde{0}$$\stackrel{0}{n}$$\dot{=}$$\stackrel{0}{\omega}$ | Analyse the effectiveness of different displays or visualisations in illustrating and comparing data distributions, then discuss the shapes of distributions and the variation in the data (AC9M4ST02) | * Record data in a variety of ways - tables with tallies, column graphs, bar graphs, lists, pictographs <br> * Select appropriate formats or layout styles based on the data <br> * Solve problems using data in tables <br> * Compare data displays <br> * Analyse different graphs showing the same data | bar graphs column graphs lists pictographs table(s) tally/tallies |
|  | Conduct statistical investigations, collecting data through survey responses and other methods; record and display data using digital tools; interpret the data and communicate the results (AC9M4ST03) | $\star$ Collect and record data for questions that have a broader set of answers (e.g. instead of 'What's your favourite colour', to 'What is the most popular colour amongst Year 4 students in our class?') <br> $\star$ Include features of graphs including Titles, Labels ( x and y axis) and Keys | collect data key label question record statistics titles $x$-axis $y$-axis |
|  | Describe possible everyday events and the possible outcomes of chance experiments and order outcomes or events based on their likelihood of occurring; identify independent or dependent events (AC9M4P01) | * Predicting whether a range of events involving chance are likely or unlikely <br> * Identify events as certain or impossible and explain reasoning <br> * Order events based on their likelihood <br> * Identify independent or dependent events | certain identify impossible likely possible unlikely |
|  | Conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results (AC9M4P02) | $\star$ Identify the possible outcomes of a chance experiment (e.g. tossing a coin, throwing a dice, colour spinners) <br> * Create charts to record results of chance experiments <br> * Explain what the data shows <br> * Conduct experiments and change variables | conduct data experiment(s) outcomes possible record results |

## Year 5

## Content Descriptor

Interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a number line (AC9M5N01)

Express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another (AC9M5N02)
Compare and order fractions with the same and related denominators including mixed numerals, applying knowledge of factors and multiples; represent these fractions on a number line (AC9M5N03)

Recognise that $100 \%$ represents the complete whole and use percentages to describe, size; connect familiar percentages to their decimal and fraction equivalents (AC9M5N04) Solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies (AC9M5N05)

Solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of answers (AC9M5N06)
Solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction (AC9M5N07) Check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context (AC9M5N08)

## What to cover

* Read and write numbers within 1000000
* Identify the values of digits and place values in numbers up to 7-digits
* Compare and order numbers within 1000000
* Write sets of numbers in order on open number lines
* Write numbers up to 3 decimal places
* Read and write decimals up to 3 decimals places on a number line
* Compare and order decimals
$\star$ Identify the values of digits in decimals with 3 decimal places
* Add and subtract decimals without and with regrouping
* List factors of whole numbers and common factors of pairs of numbers
* Find the highest common factors (HCF) and lowest common factor (LCF) of two numbers

Vocabulary
decimal (point/place) Millions (M)
Ten Thousands (TTh)
Thousands (Th)
Hundreds (H)
Ones ( O )
tenths ( $t$ )
hundredths ( h )
thousandths (th)
.
common factors
factors
highest common factor
(HCF)
lowest common factor (LCF)

* Compare and order unit fractions
* Compare and order fractions and mixed numbers with the same denominator
* Locate fractions and mixed numbers on a number line
* Convert between improper fractions and mixed numbers
* Calculate equivalent fractions and use this to compare fractions
« Understand that percent means 'of one hundred'
* Divide 2-, 3- and 4-digit numbers by 1-digit and 2digit numbers up to 3 decimal places
* Understand the relationship between fractions, decimals and percentages
* Convert fractions to decimals
* Convert decimals to percentages
* Know some common fraction, decimal and decimal relationships ( $1 / 2=0.5=50 \%, 3 / 4=0.75=$ $75 \%, 1 / 3=0.33=33 \%, 1 / 5=0.2=20 \%$ )
$\star$ Add and subtract fractions and mixed numbers with the same denominator
* Add and subtract fractions and mixed numbers
with related denominators
$\star$ Find $1,10,100,1000,10000$ and 100000 more or less than a given number
$\star \quad$ Add and subtract up to 6-digit numbers efficiently without and with regrouping
* Multiply up to $3 \times 3$-digit numbers using area model, lattice model or traditional method
* Solve 2-step worded problems using a variety of strategies
* Divide using lattice model or short division/bracket method
* Divide 2-, 3- and 4-digit numbers by 1-digit and 2digit numbers up to 3 decimal places
* Express the remainder as a whole number, fraction
or decimal
* Round a whole number up to 5 digits to the nearest ten thousand, thousand, hundred, or ten
* Estimate the answers of calculations using the four operations based on rounding
)

compare denominator equivalent fraction improper fraction mixed number number line order related denominator same denominator unit fraction(s)
decimals
decimal point/place digit
equivalent fractions
percent
percentages
addition common denominator denominator numerator related denominator subtraction area model arrays division lattice model multiplication product quotient times table traditional model
bracket method decimal decimal point/places express fraction lattice model remainder short division whole number(s) digit estimate estimation round rounding


## Year 5

|  | Content Descriptor | What to cover | Vocabulary |
| :---: | :---: | :---: | :---: |
|  | Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation (AC9M5N09) | $\star$ Know that numbers can be multiplied in any order to get the same answer <br> * Add and subtract amounts of money <br> * Multiply and divide amounts of money <br> * Complete 2-step worded problems involving money | add/addition amounts of money calculate difference divide/division inverse operations multiply/multiplication product quotient solve subtract/subtraction sum |
|  | Create and use algorithms involving a sequence of steps and decisions and digital tools to experiment with factors, multiples and divisibility; identify interpret and describe emerging patterns (AC9M5NO10) | * Use knowledge of the four operations to complete a range of problems <br> * List factors of whole numbers and common factors of pairs of numbers <br> * Find the highest common factors (HCF) and lowest common factor (LCF) of two numbers | factors four operations highest common factor (HCF) lowest common factor (LCF) multiples |
| $\begin{aligned} & \mathrm{D} \\ & \frac{0}{0} \\ & \mathbf{0} \\ & \hline \mathbf{4} \end{aligned}$ | Recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts (AC9M5A01) | « Write addition and subtraction fact families <br> * Write multiplication and division fact families | add/addition difference divide/ddivision fact families inverse operations multiply/multiplication product quotient subtract/subtraction sum |
|  | Find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations (AC9M5A02) | * Find unknown quantities in number sentences <br> * Use the part-part-whole strategy to find unknown quantities in number sentences <br> * Identify equivalent number sentences <br> * Use addition and subtraction facts to identify unknown quantities in number sentences <br> * Use multiplication and division facts to identify unknown quantities in number sentences | add/addition number sentences part-part-whole patterns quantities subtract/subtraction unknown |
|  | Choose appropriate metric units when measuring the length, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure <br> (AC9M5M01) | « Identify best units and tools to use for length $\mathrm{km}, \mathrm{m}, \mathrm{cm}$ or mm <br> * Identify best units and tools to use for mass - g or kg <br> * Identify best units and tools to use for capacity ml or L | capacity Celsius centimetre $(s)$ gram $(s) /$ /kilogram(s) length mass kilometre(s)//metre(s) milliitres $(s)$ litre $(s)$ millimetre(s) temperature |
|  | Solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units (AC9M5M02) | * Measure the perimeter and area of regular shapes using metric units <br> * Measure the perimeter and area of irregular shapes using metric units | area irregular perimeter regular |
|  | Compare 12- and 24 -hour time systems and solve practical problems involving the conversion between them <br> (AC9M5M03) | « Introduce 24 hour time <br> * Read and interpret a range of timetables involving 12 hour time and 24 hour time <br> * Convert between 12- and 24-hour time | $\begin{gathered} \hline \text { convert } \\ \text { data } \\ \text { interpret } \\ \text { read } \\ \text { timetables } \\ \hline \end{gathered}$ |
|  | Estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names (AC9M5M04) | « Identify and name angles (acute, obtuse, right, reflex, revolution) <br> $\star$ Classify angles using angle names <br> * Use a protractor to measure angles in degrees and name the angles <br> « Use a protractor to construct angles <br> * Estimate angles <br> * Measure angles <br> $\star$ Compare angles using degrees | acute angle(s) angles compare estimate measure obtuse angle(s) protractor reflex angle(s) revolution right |

## Year 5

| Year 5 |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Content Descriptor | What to cover | Vocabulary |
| $\begin{aligned} & \ddot{0} \\ & \text { © } \\ & \text { in } \end{aligned}$ | Connect objects to their nets and build objects from their nets using spatial and geometric reasoning (AC9M5SP01) | « Match nets to their shapes <br> * Design and construct shapes from nets | $\begin{gathered} \text { 2D/3D } \\ \text { construct } \\ \text { design } \\ \text { net(s) } \\ \text { reasoning } \\ \hline \end{gathered}$ |
|  | Construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement (AC9M5SP02) | * Read a legend and a scale on a map <br> * Follow directions on a map <br> * Read and interpret simple maps and identify the position of key features <br> * Create simple grid maps including keys and all labels | direction key features landmarks legend map scale |
|  | Describe and perform translations, reflections and rotations of shapes, using dynamic geometric software where appropriate; recognise what changes and what remains the same, and identify any symmetries (AC9M5SP03) | * Understand that translations, rotations and reflections can change the position and orientation of a shape but not the shape or size <br> * Perform translations, reflections and rotations of shapes <br> * Identify symmetry of shapes and in the environment <br> * Create symmetrical patterns | reflect/reflections rotate/rotation(s) symmetry symmetrical translate/transslations |
| $\begin{aligned} & \frac{\tilde{U}}{\omega} \\ & \frac{訁}{\omega} \\ & \frac{0}{\omega} \end{aligned}$ | Acquire, validate and represent data for nominal and ordinal categorical and discrete numerical variables, to address a question of interest or purpose using software including spreadsheets; discuss and report on data distributions in terms of highest frequency (mode) and shape, in the context of the data (AC9M5ST01) | * Understand why people collect data <br> * Collect and record data <br> * Interpret data from a range of data sets <br> * Read data when the key equals more than one | collect data frequency interpret key label question record statistics titles variables x-axis y-axis ala |
|  | Interpret line graphs representing change over time; discuss the relationships that are represented and conclusions that can be made <br> (AC9M5ST02) | * Read and interpret line graphs <br> * Compare data displays showing change over time <br> $\star$ Analyse different graphs showing the same data | data graphs line graphs represent/representation |
|  | Plan and conduct statistical investigations by posing questions or identifying a problem and collecting relevant data; choose appropriate displays and interpret the data; communicate findings within the context of the investigation (AC9M5ST03) | * Collect and record data for a question of interest <br> * Interpret and analyse the data (does data generated provide the necessary information) <br> $\star$ Include features of graphs including Titles, Labels ( $x$ and $y$ axis) and Keys | collect <br> conduct <br> datat <br> features <br> frequency <br> interpret <br> key <br> label <br> plan <br> question <br> record <br> titles <br> variables <br> $x$-axis <br> $y$-axis |
| $\begin{aligned} & \text { 글 } \\ & \text { 을 } \\ & \text { 은 } \end{aligned}$ | List the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely (AC9M5P01) | « Discuss what it means for outcomes to be equally likely <br> * Compare the number of possible and equally likely outcomes of chance events (e.g. a card deck has 2 colours, 4 suits and 52 cards, so it is dependent on what you are looking for) <br> * Discussing and investigating what makes experiments fair or unfair <br> * Investigating how variables can change the outcomes of an experiment | certain equally likely identify impossible likely possible unlikely variables |
|  | Conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results; use frequency to compare outcomes and estimate their likelihoods (AC9M5P02) | * Identify the possible outcomes of a chance experiment (e.g. tossing a coin, throwing a dice, colour spinners) <br> * Create charts to record results of chance experiments <br> * Explain what the data shows <br> * Conduct experiments and change variables | charts conduct data experiment $(s)$ outcomes possible record results variables |

## Year 6

## Content Descriptor

Recognise situations, including financial contexts, that use integers; locate and represent integers on a number line and as coordinates on the Cartesian plane (AC9M6NO1)
Identify and describe the properties of prime, composite and square numbers and use
these properties to solve problems
and simplify calculations (AC9M6N02)
Apply knowledge of equivalence to compare, order and represent common fractions including halves, thirds and quarters on the same number line and justify their order (AC9M6N03)
Apply knowledge of place value to add and subtract decimals, using digital tools where appropriate; use estimation and rounding to check the reasonableness of answers (AC9M6N04)
Solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions
(AC9M6N05)
Multiply and divide decimals by multiples of powers of 10 without
a calculator, applying knowledge of place value and proficiency with multiplication facts; using estimation and rounding to check the reasonableness of answers (AC9M6N06)
Solve problems that require
finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts, choosing efficient calculation strategies and using digital tools where appropriate (AC9M6N07)

Approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies
(AC9M6N08)
Use mathematical modelling to solve practical problems involving natural and rational numbers and percentages, including in financial contexts; formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made (AC9M6N09)

## What to cover

* Introduce negative integers


## Vocabulary

* Identify real-life situations that make use of integers
* Identify, read and place integers on number lines
* Compare and order integers on number lines
* Introduce the Cartesian plane

Cartesian plane coordinate(s) integer negative number(s) number line positive number(s) quadrant

* Identify prime numbers and explain reasoning
* Identify composite numbers and explain reasoning
* Identify square numbers and explain reasoning
composite number cubed/cubic number prime number property/properties square number squared
_
* Compare and order fractions and mixed numbers
compare with the same denominator
fraction
mixed numbers order
same denominator
add/addition decimals estimate/estimation
round/rounding subtract/subtraction
add/addition estimate/estimation fraction(s)
round/rounding subtract/subtraction digit(s) multiples place value power of 10 percentages
* Perform calculations involving fractions, decimals and percentages
* Understand the percentage of a whole
* Understand that percent means 'of one hundred'
* Divide 2-, 3- and 4-digit numbers by 1 -digit and 2-digit numbers up to 3 decimal places
* Understand the relationship between fractions, decimals and percentages
* Convert fractions to decimals and percentages
* Know some common fraction, decimal and decimal relationships ( $1 / 2=0.5=50 \%, 1 / 4=0.25=25 \%, 3 / 4=0.75$ $=75 \%, 1 / 3=0.33=33 \%, 1 / 5=0.2=20 \%$ )
* Use knowledge of familiar fractions, decimals and percentages to approximate calculations
$\star$ Round numbers to estimate answers

Calculate amounts of money saved and spent

* Create a savings plan
* Calculate discounts
* Use the four operations for solving money problems
* Plan for an event using a budget
decimals decimal point/place digit(s)
equivalent
fraction(s)
percent
percentages


## decimals

 decimal point/place digit(s) equivalent fraction(s) percent/percentagesadd/addition
amounts of money calculate difference
divide/division
inverse operations multiply/multiplication product quotient solve
subtract/subtraction sum

## Year 6

## Content Descriptor

Recognise and use rules that generate visually growing patterns and number patterns involving rational numbers (AC9M6A01)
Find unknown values in numerical equations involving brackets and
combinations of arithmetic operations, using the properties of numbers and operations
(AC9M6A02)

Create and use algorithms
involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns (AC9M6A03) Convert between common metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem
(AC9M6M01)
Establish the formula for the area of a rectangle and use it to solve practical problems (AC9M6M02)

Identify the relationships between angles on a straight line, angles at a point and vertically opposite angles; use these to determine
unknown angles, communicating reasoning (AC9M6M04)

Compare the parallel crosssections of objects and recognise their relationships to right prisms
(AC9M6SP01)
Locate points in the 4 quadrants of a Cartesian plane; describe
changes to the coordinates when a point is moved to a different position in the plane (AC9M6SP02)

Recognise and use combinations of transformations to create tessellations and other geometric patterns (AC9M6SP03)

## What to cover

$\star$ Describe, continue and create number patterns involving whole numbers, fractions and decimals

* Continue and create geometric patterns and number patterns and be able to describe the rule
* Find unknown quantities in number sentences
* Use the part-part-whole strategy to find unknown quantities in number sentences
* Identify equivalent number sentences
* Use addition and subtraction facts to identify unknown quantities in number sentences
* Use multiplication and division facts to identify unknown quantities in number sentences
* Calculate mixed operation number sentences without and with brackets
* Write appropriate number sentences to solve worded problems
* Identify and understand prefixes used in units of measurement (milli, centi, kilo)
* Convert between $\mathbf{k m}$ and $\mathbf{m}$
* Convert between $\mathbf{c m}$ and $\mathbf{m m}$
* Convert between $\mathbf{g}$ and $\mathbf{k g}$
* Convert between $\mathbf{m l}$ and $\mathbf{L}$
continue create missing element number pattern(s) sequence(s) add/addition number sentences part-part-whole patterns quantities subtract/subtraction unknown

Brackets BIDMAS Index Indices
Number sentence
Order of operations Parenthesis capacity centimetre(s) gram(s)/kilogram(s) length mass kilometre(s)/metre(s) millilitre(s)/ litre(s) millimetre(s) temperature

* Understand the formula for Area ( $\mathrm{A}=\mathrm{L} \times \mathrm{W}$ )
* Calculate the perimeter and area of regular and irregular shapes
area
formula
length perimeter width
$\star$ Read a range of timetables
* Understand that timetables are dependent on purpose
* Plan a trip involving one or more modes of public transport
* Develop a timetable of daily activities for a planned event
$\star \quad$ Investigate the properties of supplementary and complementary angles
$\star$ Find the size of unknown angles
* Investigate straight, vertically opposite and angles at a point
angles at a point complementary properties straight
supplementary unknown angles vertically opposite
$\star$ Investigate how dissecting through different crosssections changes the shape
* Understand how to read the Cartesian plane and the 4 quadrants
* Read and locate points in the 4 quadrants
* Read and write coordinates
* Create tessellations of shapes
* Identify shapes or combinations of shapes that will or will not tessellate
* Investigate symmetry and symmetrical patterns
cross-section dissect investigate parallel prisms
Cartesian plane coordinate(s) integer
negative number(s) number line positive number(s) quadrant combinations geometric geometric patterns shapes symmetrical patterns symmetry tessellations

MATHS CURRICULUM

## Year 6

|  | Content Descriptor | What to cover | Vocabulary |
| :---: | :---: | :---: | :---: |
|  | Interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools; compare distributions in terms of mode, range and shape <br> (AC9M6ST01) | $\star$ Understand why people collect data <br> * Collect and record data <br> * Interpret data from a range of data sets <br> * Read data when the key equals more than one | ```collect data frequency interpret key label record statistics titles variables x-axis/y-axis``` |
|  | Identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions (AC9M6ST02) | $\star$ Read and interpret line graphs <br> * Compare data displays showing change over time <br> * Analyse different graphs showing the same data | data graphs line graphs represent/representation |
|  | Plan and conduct statistical investigations by posing and refining questions or identifying a problem and collecting relevant data; analyse and interpret the data and communicate findings within the context of the investigation (AC9M6ST03) | * Collect and record data for a question of interest <br> * Interpret and analyse the data (does data generated provide the necessary information) <br> * Include features of graphs including Titles, Labels (x and $y$ axis) and Keys | collect conduct data features frequency interpret key label plan question record titles variables $x$-axis y-axis |
|  | Recognise that probabilities lie on numerical scales of 0-1 or 0\%-100\% and use estimation to assign probabilities that events occur in a given context, using common fractions, percentages and decimals (AC9M6P01) | * Discuss what it means for outcomes to be equally likely <br> * Compare the number of possible and equally likely outcomes of chance events (e.g. a card deck has 2 colours, 4 suits and 52 cards, so it is dependent on what you are looking for) <br> * Discussing and investigating what makes experiments fair or unfair <br> * Investigating how variables can change the outcomes of an experiment |  |
|  | Conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools; compare observations with expected results and discuss the effect on variation of increasing the number of trials (AC9M6P02) | $\star$ Identify the possible outcomes of a chance experiment (e.g. tossing a coin, throwing a dice, colour spinners) <br> * Create charts to record results of chance experiments <br> * Explain what the data shows <br> * Conduct experiments and change variables | charts conduct data experiment(s) outcomes possible record results variables |

