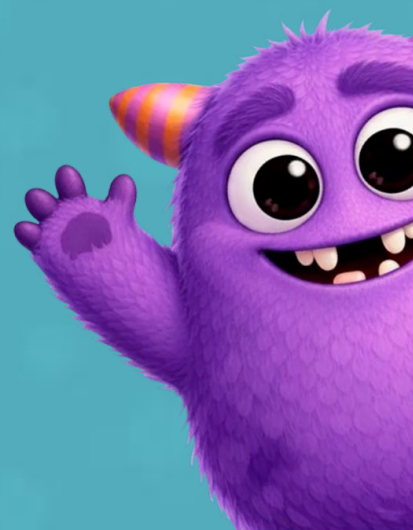
Grade 3/Year 4 Scope and Sequence

Contents



awesomenicity

G3/Y4 Overview

Number	Addition	Subtraction	Multiplication	Division
- Identify, represent and expand numbers up to 10,000s. - Compare numbers up to 10,000s using mathematical symbols (>, < , =). - Read and write numbers up to 10,000s. - Apply place value to partition, rearrange and regroup numbers. - Round numbers to the nearest 10 and 100. - Understand the conditions for a number to be odd or even.	- Understand and explain the connection between addition and subtraction. - Develop strategies to solve addition using effective mental and written methods. - Use rounding to solve and check for reasonableness of answers. - Decode, develop strategies for, and solve addition word problems.	- Understand and explain the connection between addition and subtraction. - Develop strategies to solve addition using effective mental and written methods. - Use addition to solve and verify subtraction answers and vice versa. - Use rounding to solve and check for reasonableness of answers. - Decode, develop strategies for, and solve addition word problems.	- Understand the concept of equal groups. - Apply and connect skip counting to multiplication. - Identify and create arrays to show multiplication. - Investigate and apply patterns to multiply. - Recall facts for two, three, five and ten times tables. - Develop effective mental and strategies to multiply large numbers. - Solve word problems involving multiplication.	- Understand and explain how multiplication and division are connected. - Explore how equal groups and skip counting apply to division. - Comprehend and utilise division vocabulary. - Solve division involving remainders. - Investigate rules of divisibility. - Use multiplication to divide and verify answers. - Develop effective mental and strategies to divide large numbers. - Solve word problems involving division.
Fractions	**Measurement**	**Shape and Space**	**Statistics, Probability & Data Handling**	**Money and Time**
- Identify and create fractions. - Find fractions to real life connections. - Compare fractions with like and unlike denominators. - Identify equivalent fractions. - Add and subtract fractions with like denominators. - Calculate fractions of amounts.	- Identify and create fractions. - Find fractions to real life connections. - Compare fractions with like and unlike denominators. - Identify equivalent fractions. - Add and subtract fractions with like denominators. - Calculate fractions of amounts.	- Describe and model 2D and 3D shapes using geometrical vocabulary. - Identify and sort the geometric properties of 2D and 3D shapes. - Create and interpret simple grid maps to demonstrate position and create/follow pathways using directional vocabulary (forwards, backwards, left right, turn). - Identify compass points (N, S, E, W). - Identify and measure angles as measures of turn.	- Design a survey and systematically collect, organise and display data using graphs. - Conduct experiments connected to chance involving equally likely outcomes and represent probabilities of the outcomes. - Understand that probabilities have a range. - Describe and interpret different data sets in context. - Justify predictions about probability of events.	- Identify, read, write and compare 12 and 24 hour time. - Convert between 12 and 24 hour time systems. - Create financial plans. - Plan and use a budget.

Place Value

Objectives	Awesomenicity Lessons
• Explain the properties of odd and even numbers. • Apply place value to partition, rearrange and regroup number to at least tens of thousands. • Expand numbers to at least 10,000s. • Compare numbers to at least 10,000s using mathematical symbols (>, < , =). • Read and write numbers to at least hundred thousands. • Round numbers to the nearest 10, 100 and 1,000. • Model, read, write and compare decimal amounts to at least the hundredths.	Lesson 1: **Exploring place value** Lesson 2: **Identifying the value of digits (expanding numbers)** Lesson 3: **Applying expanding form** Lesson 4: **Comparing numbers** Lesson 5: **Ordering numbers** Lesson 6: **Writing numbers in written form** Lesson 7: **Applying writing numbers in word form** Lesson 8: **Rounding numbers to the nearest ten** Lesson 9: **Rounding numbers to the nearest hundred** Lesson 10: **Rounding to the nearest 1,000** Lesson 11: **Introduction to decimals – tenths** Lesson 12: **Introduction to decimals – hundredths** Lesson 13: **Introduction to regrouping** Lesson 14: **Applying regrouping skills**
Consolidation and assessment.	Lesson 15: **Consolidating place value** Lesson 16: **Place Value Assessment**

Addition & Subtraction

Objectives	Awesomenicity Lessons
• Understand and explain the connection between addition and subtraction. • Develop strategies to add and subtract multi-digit numbers. • Explore regrouping when adding and subtracting. • Develop mental strategies to add up to three-digit numbers. • Use rounding to solve and check for reasonableness of answers. • Decode, develop strategies for, and solve two-step word problems involving addition and subtraction.	Lesson 1: **Exploring near doubles and number flexibility** Lesson 2: **Applying number bond skills to add mentally** Lesson 3: **Bridging through to the next ten** Lesson 4: **Counting on and finding number complements to 100** Lesson 5: **Introduction to jump and split strategy** Lesson 6: **Bridging down to the next ten to subtract** Lesson 7: **Using jump/split strategy to subtract mentally** Lesson 8: **Applying mental strategies to subtract** Lesson 9: **Intro to column method with regrouping** Lesson 10: **Using rounding to problem-solve** Lesson 11: **Applying addition to add 3 amounts** Lesson 12: **Using column method to subtract** Lesson 13: **Using subtraction to make change** Lesson 14: **Applying subtraction strategies** Lesson 15: **Adding and subtracting money** Lesson 16: **Solving addition and subtraction word problems**
Consolidation and assessment.	Lesson 17: **Applying problem-solving skills** Lesson 18: **Addition and Subtraction Assessment**

Multiplication

Objectives	Awesomenicity Lessons
• Understand the concept of equal groups. • Explore multiplication patterns for the 2 and 4, 3 and 6, 4 and 8, 7, and 9. • Multiply numbers by 10, 100, and 1,000. • Find and connect patterns in multiples. • Comprehend and identify factors. • Multiply by multiples of 10 using flexible thinking. • Develop mental and written strategies to multiply larger numbers. • Recall facts up to 10 x 10. • Solve word problems involving multiplication.	Lesson 1: **Exploring equal groups** Lesson 2: **Using skip counting to identifying multiples** Lesson 3: **Exploring multiples** Lesson 4: **Investigating factors** Lesson 5: **Identifying factor friends** Lesson 6: **Multiplying by 2 and 4** Lesson 7: **Multiplying by 3 and 6** Lesson 8: **Multiplying by 4 and 8** Lesson 9: **Multiplying by 9** Lesson 10: **Multiplying by 7** Lesson 11: **Multiplying multi-digit numbers by 10** Lesson 12: **Multiplying numbers by 10, 100 and 1,000** Lesson 13: **Multiplying multiples of 10** Lesson 14: **Using place value dots to multiply multi-digit numbers** Lesson 15: **Using grid method to multiply 2-digit numbers** Lesson 16: **Applying grid method to multiply 3-digit numbers** Lesson 17: **Introduction to compensation strategy** Lesson 18: **Exploring creative ways to multiply multi-digit numbers** Lesson 19: **Introduction to partial product strategy** Lesson 20: **Applying partial product strategy** Lesson 21: **Solving word problems**
Consolidation and assessment.	Lesson 22: **Multiplication Assessment**

Division

Objectives	Awesomenicity Lessons
• Understand and explain the connection between multiplication and division. • Use division vocabulary. • Understand the concept of equal groups and remainders. • Use inverse operations to divide and verify answers. • Divide by 10, 100 and 1,000 using place value. • Develop and apply mental and written strategies to divide. • Investigate and describe rules of divisibility. • Use a range of strategies to solve word problems involving division and multiplication.	Lesson 1: **Sharing in equal groups** Lesson 2: **Applying doubling a halving skills** Lesson 3: **Division vocabulary and skip counting** Lesson 4: **Identifying remainders** Lesson 5: **Exploring remainders** Lesson 6: **Introduction to inverse operations** Lesson 7: **Applying inverse operations** Lesson 8: **Dividing by 10 and 100** Lesson 9: **Applying dividing by 10 and 100** Lesson 10: **Intro to place value dot division** Lesson 11: **Dividing 2-digit and 3-digit numbers using jump strategy** Lesson 12: **Exploring divisibility** Lesson 13: **Use chunking strategy to divide** Lesson 14: **Applying chunking strategy to divide** Lesson 15: **Applying problem-solving skills**
Consolidation and assessment.	Lesson 16: **Creating word problems** Lesson 17: **Using questions to problem-solve** Lesson 18: **Division Assessment**

Fractions

Objectives	Awesomenicity Lessons
• Identify and create fractions using number lines. • Use fraction vocabulary. • Identify equivalent fractions. • Compare fractions with unlike denominators using lowest common multiples. • Simplify fractions. • Calculate fractions of amounts. • Add and subtract fractions with unlike denominators (including mixed numbers & improper fractions). • Convert improper fractions into mixed numbers. • Make connections between fractions, decimals and percentages to the hundredths place value column.	Lesson 1: **Identifying fractions** Lesson 2: **Creating fractions** Lesson 3: **Locating fractions on a number line** Lesson 4: **Identifying equivalent fractions** Lesson 5: **Finding and identifying equivalent fractions** Lesson 6: **Locating equivalent fractions** Lesson 7: **Adding and subtracting fractions with like denominators** Lesson 8: **Calculating fractions of amounts** Lesson 9: **Applying fractions of amounts** Lesson 10: **Ordering fractions & intro to mixed numbers** Lesson 11: **Connecting mixed numbers to improper fractions** Lesson 12: **Connecting fractions to decimals (tenths)** Lesson 13: **Connecting fractions to decimals (hundredths)**
Consolidation and assessment.	Lesson 14: **Fractions Assessment**

Measurement

Objectives	Awesomenicity Lessons
• Identify and choose appropriate units of measurement. • Measure and convert units of length, such as mm, cm, m and km. • Calculate the perimeter and area of compound shapes. • Measure and convert units of capacity. • Measure and convert units of mass. • Find and read the scale of various measuring instruments.	Lesson 1: **Exploring standard units of metric measurement** Lesson 2: **Measuring length with accuracy** Lesson 3: **Converting mm, cm and m** Lesson 4: **Connecting km and m** Lesson 5: **Introduction to calculating perimeter** Lesson 6: **Creating specific perimeters** Lesson 7: **Calculating the area of rectangles** Lesson 8: **Using area to create rectangles** Lesson 9: **Applying area and perimeter** Lesson 10: **Reading thermometers and exploring temperature** Lesson 11: **Introduction to mass** Lesson 12: **Adding mass** Lesson 13: **Introduction to capacity** Lesson 14: **Measuring capacity** Lesson 15: **Metric Olympics!**
Consolidation and assessment.	Lesson 16: **Measurement Assessment**

Shape and Space

Objectives	Awesomenicity Lessons
• Use geometrical vocabulary. • Describe, sort and compare the areas of regular and irregular shapes by informal means. • Sort, compare and describe two dimensional shapes that result from combining and splitting common shapes. • Identify and describe transformations, such as translation, rotation and reflection. • Interpret information on a map using simple scales, legends and directions. • Identify and create symmetrical patterns, pictures and shapes. • Measure, compare and classify angles as equal to, greater than, or less than, a right angle.	Lesson 1: **Introduction to angles** Lesson 2: **Introduction to position and turns** Lesson 3: **Ordering and identifying angles** Lesson 4: **Introduction to lines** Lesson 5: **Identifying 2D shapes** Lesson 6: **Classifying triangles** Lesson 7: **Classifying quadrilaterals** Lesson 8: **Identifying lines of symmetry** Lesson 9: **Creating 2D shapes** Lesson 10: **Locating coordinates** Lesson 11: **Plotting coordinates** Lesson 12: **Translating shapes** Lesson 13: **Making and describing translations**
Consolidation and assessment.	Lesson 14: **Shape and Space Assessment**

Statistics, Probability and Data

Objectives	Awesomenicity Lessons
• Demonstrate and order the chances of possible everyday events happening. • Identify everyday events that are not possible if another event happens. • Identify events that are not affected by the occurrence of other events. • Design a survey or experiment of chance and systematically collect, organise and display data. • Identify mode and range in data.	Lesson 1: **Interpreting pictograms and bar graphs** Lesson 2: **Creating bar graphs** Lesson 3: **Gathering and presenting data** Lesson 4: **Interpreting line graphs** Lesson 5: **Creating line graphs** Lesson 6: **Introduction to chance and probability** Lesson 7: **Using probability to make predictions**
Consolidation and assessment.	Lesson 8: **Statistics, Probability and Data Assessment**

Data and probability

Time

Objectives	Awesomenicity Lessons
• Read and write digital and analogue time to 1 minute intervals using am, pm and 24 hours. • Measure time intervals to the nearest 5 minutes.	Lesson 1: **Converting between days, weeks, months and years** Lesson 2: **Converting between seconds, minutes and hours** Lesson 3: **Reading time to the nearest minute** Lesson 4: **Converting 24 hour time** Lesson 5: **Calculating elapsed time**
Consolidation and assessment.	Lesson 6: **Time Assessment**

Money

Objectives	Awesomenicity Lessons
• Solve problems involving purchases and the calculation of change to the lowest denomination of a currency.	**UK Currency** Lesson 1: **Reading and writing money using decimals** Lesson 2: **Calculating and comparing money** Lesson 3: **Adding money** Lesson 4: **Subtracting money** Lesson 5: **Adding and Subtracting money** Lesson 6: **Summative Assessment** **Australian Currency** Lesson 1: **Reading and writing money using decimals** Lesson 2: **Calculating and comparing money** Lesson 3: **Adding money** Lesson 4: **Subtracting money** Lesson 5: **Adding and Subtracting money** Lesson 6: **Summative Assessment** **US Currency** Lesson 1: **Reading and writing money using decimals** Lesson 2: **Calculating and comparing money** Lesson 3: **Adding money** Lesson 4: **Subtracting money** Lesson 5: **Adding and Subtracting money** Lesson 6: **Summative Assessment**

G3/Y4 Checklist

Number

Objectives	✓
Explain the properties of odd and even numbers.	
Apply place value to partition, rearrange and regroup number to at least tens of thousands.	
Expand numbers to at least 10,000s.	
Compare numbers to at least 10,000s using mathematical symbols (>, < , =).	
Read and write numbers to at least hundred thousands.	
Round numbers to the nearest 10, 100 and 1,000.	
Model, read, write and compare decimal amounts to at least the hundredths.	

Addition

Objectives	✓
Develop strategies to add at least four-digit numbers, including regrouping using written methods.	
Develop mental strategies to add up to three-digit numbers.	
Use rounding to solve and check for reasonableness of answers.	
Decode, develop strategies for, and solve two-step addition word problems.	

Subtraction

Objectives	✓
Understand and explain the connection between addition and subtraction.	
Develop mental strategies to add up to three-digit numbers.	
Explore the concept of borrowing and regrouping to subtract.	
Find unknown quantities in addition/subtraction number sentences and equivalent number sentences.	
Decode, develop strategies for, and solve two-step word problems involving addition and subtraction.	

G3/Y4 Checklist

Multiplication

Objectives	✓
Understand the concept of equal groups.	
Explore multiplication patterns for the 2 and 4, 3 and 6, 4 and 8, 7, and 9.	
Multiply numbers by 10, 100, and 1,000.	
Find and connect patterns in multiples.	
Comprehend and identify factors.	
Multiply by multiples of 10 using flexible thinking.	
Develop mental and written strategies to multiply larger numbers.	
Recall facts up to 10 x 10. Solve word problems involving multiplication.	

Division

Objectives	✓
Understand and explain the connection between multiplication and division.	
Use division vocabulary.	
Understand the concept of equal groups and remainders.	
Use inverse operations to divide and verify answers.	
Divide by 10, 100 and 1,000 using place value.	
Develop and apply mental and written strategies to divide.	
Investigate and describe rules of divisibility.	
Use a range of strategies to solve word problems involving division and multiplication.	

Fractions

Objectives	✓
Identify and create fractions using number lines.	
Use fraction vocabulary.	
Identify equivalent fractions.	
Compare fractions with unlike denominators using lowest common multiples.	
Simplify fractions.	
Calculate fractions of amounts.	
Add and subtract fractions with unlike denominators (including mixed numbers & improper fractions).	
Convert improper fractions into mixed numbers.	
Make connections between fractions, decimals and percentages to the hundredths place value column.	

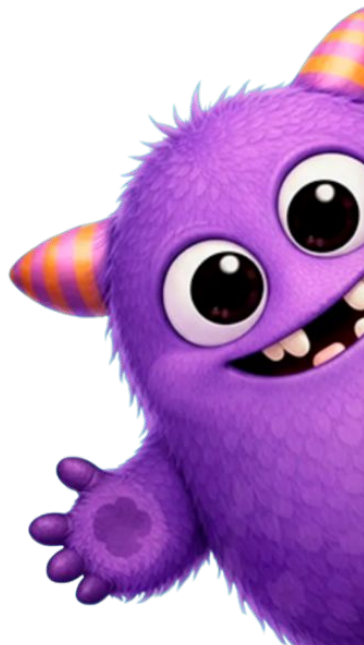
G3/Y4 Checklist

Shape and Space

Objective	✅
Identify acute and obtuse angles and compare and order angles up to 2 right angles by size.	
Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.	
Identify lines of symmetry in 2-D shapes presented in different orientations.	
Complete a simple symmetric figure with respect to a specific line of symmetry.	
Describe positions on a 2-D grid as coordinates in the first quadrant.	
Describe movements between positions as translations of a given unit to the left/right and up/down.	
Plot specified points and draw sides to complete a given polygon.	

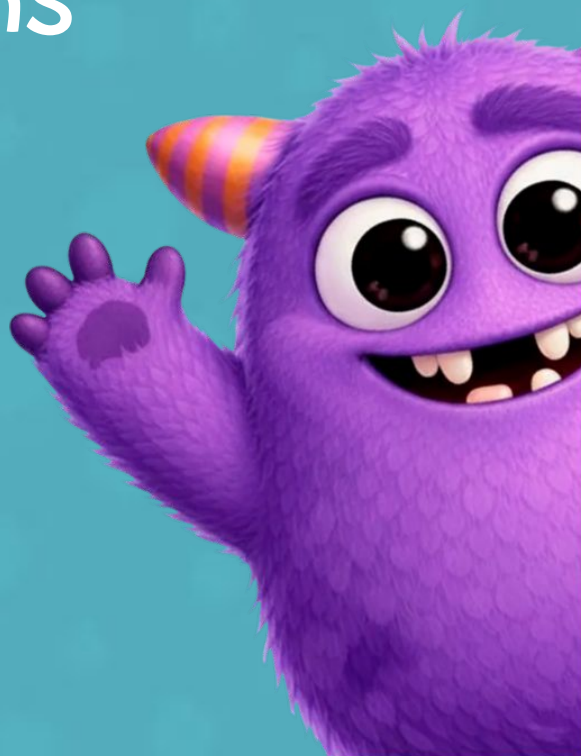
Statistics, Probability & Data

Objective	✅
Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.	
Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	



Wave goodbye to maths anxiety

Every primary age child deserves to feel good about maths



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