

Grade 5/Year 6 Scope and Sequence

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G5/Y6 Overview

Number	Addition	Subtraction	Multiplication	Division	Fractions
<ul style="list-style-type: none"> - Read, write, compare and order whole numbers up to the millions. - Investigate and identify properties of prime, composite, square and triangular numbers. <i>*Note, prime and composite are explored in multiplication.</i> - Understand and use powers of ten. - Explore real-life situations that use integers and decimals and locate and represent these on a number line. - Round to the nearest 10, 100, 1,000 and beyond. - Round decimals to the nearest tenth, hundredth and whole number. - Use the order of operations (PEMDAS) to write number sentences. 	<ul style="list-style-type: none"> - Choose and apply effective mental and written strategies to solve addition. - Develop mental and written strategies to add decimal amounts. - Use rounding, subtraction or other addition strategies to check answers. - Solve addition word problems using a range of strategies. 	<ul style="list-style-type: none"> - Choose and apply effective mental and written strategies to solve subtraction. - Develop mental and written strategies to subtract decimal amounts. - Use rounding, addition or other subtraction strategies to check answers. - Solve word problems that involve addition and subtraction using a range of strategies. 	<ul style="list-style-type: none"> - Apply times table patterns and strategies to recall multiplication facts. - Investigate multiples, factors and common factors, including prime and composite numbers. - Multiply and divide by 10, 100 and 1,000. - Explore number flexibility and find creative strategies to multiply large numbers. - Develop efficient mental and written strategies to multiply decimals and whole numbers. - Solve word problems involving the multiplication of whole numbers and/or decimals. 	<ul style="list-style-type: none"> - Identify rules of divisibility. - Use multiplication to divide. - Develop efficient mental and written strategies to multiply integers and decimal amounts. - Divide by whole numbers where the results are terminating decimals. - Solve word problems involving multiplying and dividing whole numbers and decimals. 	<ul style="list-style-type: none"> - Identify equivalent fractions. - Find fractions of amounts. - Compare fractions using the lowest common multiple. - Convert improper fractions to mixed numbers and vice versa. - Add and subtract fractions, including mixed numbers and improper fractions. - Investigate the connection between fractions, decimals and percentages. - Convert and order fractions, decimals and percentages. - Investigate and calculate percentage discounts.

Measurement	Shape and Space	Statistics, Probability & Data Handling	Ratio and Proportion	Algebra
<ul style="list-style-type: none"> - Connect decimals and fractions to measurement. - Read and interpret scales on a range of measuring instruments. - Convert between common units of length, mass and capacity. - Solve problems involving the comparison of length, mass and capacity. - Problem solve using the perimeter and area of compound shapes and triangles. - Connect volume and capacity. - Interpret and use timetables. 	<ul style="list-style-type: none"> - Create simple prisms and pyramids and make real-world connections. - Explore translations, reflections and rotations. - Graph and interpret coordinates using all four quadrants of the Cartesian coordinate system. - Find unknown angles using angles on a straight line, at a point and vertically-opposite angles. 	<ul style="list-style-type: none"> - Use fractions, percentages and decimals to describe probability. - Create experiments using chance and collect, record and display data in the most appropriate graph. - Compare observed frequencies across experiments with expected frequencies. - Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables. - Interpret secondary data. 	<ul style="list-style-type: none"> - Use appropriate ratio and proportion vocabulary. - Identify ratios in collections and make connections to fractions. - Use multiplication and division to identify ratios and solve problems. - Use proportion to manipulate quantities and calculate discounts. - Solve problems involving scale factors. 	<ul style="list-style-type: none"> - Solve problems involving unknown input and output amounts. - Form and solve expressions. - Solve equations where there is one or more unknown amounts. - Create formula from linear patterns. - Identify value pairs. - Solve formulae with two unknowns.

Place Value

Objectives

- Read, write, compare and order whole numbers up to the millions.
- Investigate and identify properties of prime, composite, square and triangular numbers.
**Note, prime and composite are explored in multiplication.*
- Understand and use powers of ten.
- Explore real-life situations that use integers and decimals and locate and represent these on a number line.
- Round to the nearest 10, 100, 1,000 and beyond.
- Round decimals to the nearest tenth, hundredth and whole number.
- Use the order of operations (PEMDAS) to write number sentences.

Awesomenicity Lessons

Lesson 1: **Let's recap place value and expanding numbers**

Lesson 2: **Let's compare large numbers**

Lesson 3: **Rounding numbers to the nearest 10, 100, 1,000 (and beyond)**

Lesson 4: **Let's order decimals**

Lesson 5: **Let's continue to order decimals**

Lesson 6: **Let's label decimals on a number line**

Lesson 7: **Let's round to the nearest whole number**

Lesson 8: **Let's round to the nearest tenth or hundredth**

Lesson 9: **Let's explore powers of ten**

Lesson 10: **Let's explore square numbers**

Lesson 11: **Let's explore the order of operations**

Lesson 12: **Let's explore negative numbers**

Lesson 13: **Let's explore triangular numbers**

Lesson 14: **Let's solve place value puzzles**



Consolidation and assessment.

Lesson 15: **Let's show what we know!**



Place value

Addition & Subtraction

Objectives

- Choose and apply effective mental and written strategies to solve addition and subtraction.
- Develop mental and written strategies to add and subtract decimal amounts.
- Use rounding, inverse operations or other strategies to check answers.
- Solve word problems that involve addition and subtraction using a range of strategies.

Awesomenicity Lessons

Lesson 1: Let's use bump strategy to add mentally

Lesson 2: Let's use bump strategy to subtract mentally

Lesson 3: Let's use bump strategy to add and subtract

Lesson 4: Let's use split strategy to add decimals

Lesson 5: Let's use split strategy to subtract tenths

Lesson 6: Let's use compensation strategy to add decimals

Lesson 7: Let's use compensation to subtract decimals

Lesson 8: Let's add decimals using written methods

Lesson 9: Let's use column method to subtract decimals

Lesson 10: Let's add and subtract decimals

Lesson 11: Let's estimate and budget

Lesson 12: Let's use addition and subtraction problem-solving

Lesson 13: Let's solve word problems

Lesson 14: Let's apply problem solving skills (Escape Room)



Consolidation and assessment.

Lesson 15: Let's show what we know!



Addition and
subtraction

Multiplication/Division Part A

Objectives

- Apply times table patterns and strategies to recall multiplication facts.
- Investigate multiples, factors and common factors, including prime and composite numbers.
- Multiply and divide by 10, 100 and 1,000.
- Explore number flexibility and find creative strategies to multiply large numbers.
- Solve word problems involving the multiplication of whole numbers and/or decimals.

Awesomenicity Lessons

Lesson 1: **Let's calculate using the 4 operations**

Lesson 2: **Let's investigate number flexibility**

Lesson 3: **Let's identify multiples and factors**

Lesson 4: **Let's identify common factors**

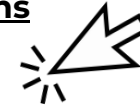
Lesson 5: **Let's explore divisibility**

Lesson 6: **Let's use inverse operations**

Lesson 7: **Let's problem-solve**

Lesson 8: **Let's x and ÷ by 10, 100 and 1,000**

Lesson 9: **Let's create word problems**



Consolidation and assessment.

Lesson 10: **Let's show what we know**



Multiplication &
Division Part A

Multiplication/Division Part B

Objectives

- Identify rules of divisibility.
- Use multiplication to divide.
- Develop efficient mental and written strategies to multiply and divide decimals and whole numbers
- Divide by whole numbers where the results are terminating decimals. .
- Solve word problems involving the multiplication of whole numbers and/or decimals

Awesomenicity Lessons

Lesson 1: **Let's multiply up to 3-digit numbers**

Lesson 2: **Let's calculate costs**

Lesson 3: **Let's multiply and problem-solve**

Lesson 4: **Let's multiply large numbers**

Lesson 5: **Let's calculate earnings**

Lesson 6: **Let's multiply decimals**

Lesson 7: **Let's multiply decimals**

Lesson 8: **Let's divide large numbers**

Lesson 9: **Let's apply chunking strategy**

Lesson 10: **Let's learn the steps for long division**

Lesson 11: **Let's ÷ decimals using long division**

Lesson 12: **Let's learn the steps for short division**

Lesson 13: **Let's problem-solve**

Lesson 14: **Let's use factors to divide**

Lesson 15: **Let's divide using 2-digit divisors**

Lesson 16: **Let's solve word problems**

Lesson 17: **Let's problem-solve and escape**



Multiplication &
Division Part B

Consolidation and assessment.

Lesson 18: **Let's show what we know**

Fractions

Objectives

- Identify equivalent fractions.
- Find fractions of amounts.
- Compare fractions using the lowest common multiple.
- Convert improper fractions to mixed numbers and vice versa.
- Add and subtract fractions, including mixed numbers and improper fractions.
- Investigate the connection between fractions, decimals and percentages.
- Convert and order fractions, decimals and percentages.
- Investigate and calculate percentage discounts.

Awesomenicity Lessons

Lesson 1: **Let's identify fractions**

Lesson 2: **Let's create equivalent fractions**

Lesson 3: **Let's simplify fractions**

Lesson 4: **Let's simplify fractions in a game**

Lesson 5: **Let's compare unlike fractions**

Lesson 6: **Let's compare unlike fractions in a game**

Lesson 7: **Calculating fractions of amounts**

Lesson 8: **Let's problem-solve with fractions of amounts**

Lesson 9: **Let's convert mixed numbers into improper fractions**

Lesson 10: **Let's convert improper fractions and mixed numbers**

Lesson 11: **Let's add and subtract unlike fractions**

Lesson 12: **Let's solve addition and subtraction puzzles**

Lesson 13: **Let's connect fractions, decimals and percentages**

Lesson 14: **Let's convert fractions, decimals and percentages**

Lesson 15: **Let's convert fractions to decimals**

Lesson 16: **Let's order decimals, fractions and percentages**

Lesson 17: **Let's calculate percentages**

Lesson 18: **Let's calculate percentages and problem-solve**

Lesson 19: **Let's multiply fractions by whole numbers**

Lesson 20: **Let's multiply fractions by fractions**

Lesson 21: **Let's divide fractions by whole numbers**



Consolidation and assessment.

Lesson 22: **Let's show what we know!**



Fractions

Measurement

Objectives

- Connect decimals and fractions to measurement.
- Read and interpret scales on a range of measuring instruments.
- Convert between common units of length, mass and capacity.
- Solve problems involving the comparison of length, mass and capacity.
- Problem solve using the perimeter and area of compound shapes and triangles.
- Connect volume and capacity.
- Interpret and use timetables.

Awesomenicity Lessons

Lesson 1: **Let's identify units of measurement**

Lesson 2: **Let's convert between units of length**

Lesson 3: **Let's identify scale and liquid volume**

Lesson 4: **Let's explore mass**

Lesson 5: **Let's solve measurement word problems**

Lesson 6: **Let's find the perimeter of compound shapes**

Lesson 7: **Let's calculate the area of compound shapes**

Lesson 8: **Let's calculate the area of triangles**

Lesson 9: **Let's calculate the area of parallelograms**

Lesson 10: **Let's explore volume**

Lesson 11: **Let's apply our understanding of volume**



Consolidation and assessment.

Lesson 12: **Let's show what we know!**



Measurement

Shape and Space

Objectives

- Create simple prisms and pyramids and make real-world connections.
- Explore translations, reflections and rotations.
- Graph and interpret coordinates using all four quadrants of the Cartesian coordinate system.
- Find unknown angles using angles on a straight line, at a point and vertically-opposite angles.

Awesomenicity Lessons

Lesson 1: **Identifying and measuring angles**

Lesson 2: **Calculating angles**

Lesson 3: **Classifying triangles and measuring their angles**

Lesson 4: **Making connections between quadrilaterals**

Lesson 5: **Finding missing angles**

Lesson 6: **Investigating circle vocabulary connections**

Lesson 7: **Constructing cuboids from nets**

Lesson 8: **Creating nets and constructing cuboids**

Lesson 9: **Locating and plotting coordinates**

Lesson 10: **Plotting coordinates**

Lesson 11: **Translating shapes on a grid**

Lesson 12: **Reflecting shapes**

Lesson 13: **Making & describing translations**

Lesson 14: **Shape and Space Assessment**

Consolidation and assessment.

Available Soon



Shape and space

Statistics, Probability and Data

Objectives

- Use fractions, percentages and decimals to describe probability.
- Create experiments using chance and collect, record and display data in the most appropriate graph.
- Compare observed frequencies across experiments with expected frequencies.
- Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables.
- Interpret secondary data.

Awesomenicity Lessons

- Lesson 1: **Interpreting graphs**
- Lesson 2: **Interpreting pie graphs**
- Lesson 3: **Drawing pie graphs**
- Lesson 4: **Gathering and presenting data**
- Lesson 5: **Calculating mean average**
- Lesson 6: **Mean, mode, median and range**
- Lesson 7: **Exploring timetables**
- Lesson 8: **Exploring probability**
- Lesson 9: **Using probability to make predictions**
- Lesson 10: **Applying probability**

Available Soon

Consolidation and assessment.

Lesson 11: **Statistics, Probability and Data Assessment**



Data and probability

Ratio and Proportion

Objectives

- Use appropriate ratio and proportion vocabulary.
- Identify ratios in collections and make connections to fractions.
- Use multiplication and division to identify ratios and solve problems.
- Use proportion to manipulate quantities and calculate discounts.
- Solve problems involving scale factors.

Awesomenicity Lessons

- Lesson 1: **Introduction to ratio vocabulary**
- Lesson 2: **Identifying ratio and fractions**
- Lesson 3: **Solving ratio problems**
- Lesson 4: **Solving proportion problems**
- Lesson 5: **Using proportion to manipulate quantities**
- Lesson 6: **Introducing scale factor**

Available Soon

Consolidation and assessment.

Lesson 7: **Ratio and Proportion Assessment**



Ratio and proportion

Algebra

Objectives

- Solve problems involving unknown input and output amounts.
- Form and solve expressions.
- Solve equations where there is one or more unknown amounts.
- Create formula from linear patterns.
- Identify value pairs.
- Solve formulae with two unknowns.

Awesomenicity Lessons

- Lesson 1: **Exploring input and output**
- Lesson 2: **Solving 2-step input-output functions**
- Lesson 3: **Forming Expressions**
- Lesson 4: **Solving Equations**
- Lesson 5: **Introduction to Applying formulae**
- Lesson 6: **Creating formulae from linear patterns**
- Lesson 7: **Finding Value Pairs**
- Lesson 8: **Solve formulae with two unknowns**

Available Soon



Consolidation and assessment.

Lesson 9: **Algebra Assessment**



Algebra

G5/Y6 Checklist



Number

Objectives	✓
Read, write, compare and order whole numbers up to the millions.	
Investigate and identify properties of prime, composite, square and triangular numbers.	
Understand and use powers of ten.	
Explore real-life situations that use integers and decimals and locate and represent these on a number line.	
Round to the nearest 10, 100, 1,000 and beyond.	
Round decimals to the nearest tenth, hundredth and whole number.	
Use the order of operations (PEMDAS) to write number sentences.	

Addition


Objectives	✓
Choose and apply effective mental and written strategies to solve addition.	
Choose and apply effective mental and written strategies to solve addition.	
Develop mental and written strategies to add decimal amounts.	
Use rounding, subtraction or other addition strategies to check answers.	
Solve addition word problems using a range of strategies.	

Subtraction


Objectives	✓
Choose and apply effective mental and written strategies to solve subtraction.	
Develop mental and written strategies to subtract decimal amounts.	
Use rounding, addition or other subtraction strategies to check answers.	
Solve word problems that involve addition and subtraction using a range of strategies.	

G5/Y6 Checklist


Multiplication

Objectives	
Apply times table patterns and strategies to recall multiplication facts.	
Investigate multiples, factors and common factors, including prime and composite numbers.	
Multiply and divide by 10, 100 and 1,000.	
Explore number flexibility and find creative strategies to multiply large numbers.	
Develop efficient mental and written strategies to multiply decimals and whole numbers.	
Solve word problems involving the multiplication of whole numbers and/or decimals.	

Division


Objectives	
Identify rules of divisibility.	
Use multiplication to divide.	
Develop efficient mental and written strategies to multiply integers and decimal amounts.	
Divide by whole numbers where the results are terminating decimals.	
Solve word problems involving multiplying and dividing whole numbers and decimals.	

Fractions


Objectives	
Identify equivalent fractions.	
Find fractions of amounts.	
Compare fractions using the lowest common multiple.	
Convert improper fractions to mixed numbers and vice versa.	
Add and subtract fractions, including mixed numbers and improper fractions.	
Investigate the connection between fractions, decimals and percentages.	
Convert and order fractions, decimals and percentages.	
Investigate and calculate percentage discounts.	

G5/Y6 Checklist


Measurement

Objectives	
Connect decimals and fractions to measurement.	
Read and interpret scales on a range of measuring instruments.	
Convert between common units of length, mass and capacity.	
Solve problems involving the comparison of length, mass and capacity.	
Problem solve using the perimeter and area of compound shapes and triangles.	
Connect volume and capacity.	

Space and Shape

Objectives	
Create simple prisms and pyramids and make real-world connections.	
Explore translations, reflections and rotations.	
Graph and interpret coordinates using all four quadrants of the Cartesian coordinate system.	
Find unknown angles using angles on a straight line, at a point and vertically-opposite angles.	

Statistics, Probability & Data Handling

Objectives	
Use fractions, percentages and decimals to describe probability.	
Create experiments using chance and collect, record and display data in the most appropriate graph.	
Compare observed frequencies across experiments with expected frequencies.	
Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables.	
Interpret secondary data.	
Interpret and use timetables.	

G5/Y6 Checklist

Ratio and Proportion

Objectives	✓
Use appropriate ratio and proportion vocabulary.	
Identify ratios in collections and make connections to fractions.	
Use multiplication and division to identify ratios and solve problems.	
Use proportion to manipulate quantities and calculate discounts.	
Solve problems involving scale factors.	

Algebra

Objectives	✓
Solve problems involving unknown input and output amounts.	
Form and solve expressions.	
Solve equations where there is one or more unknown amounts.	
Create formula from linear patterns.	
Identify value pairs.	
Solve formulae with two unknowns.	



Wave goodbye to math meltdowns

Every child deserves
to feel good about maths

awesomenicity

