

## Mathletics and the Welsh Curriculum

This alignment document lists all Mathletics curriculum activities associated with each Wales course, and demonstrates how these fit within the National Curriculum Programme of Study for Wales.

As new activities are developed, this document will be updated. You can download the latest version from the training and support portal:

<http://www.3plearning.com/uk/mathleticsalignment/>

Key: Normal text: LNF statement Extended skill ▲ Programme of study skill ❖

## Contents

Content	Page
Reception	2
Year 1	7
Year 2	13
Year 3	20
Year 4	27
Year 5	35
Year 6	44

### Foundation Phase: Reception, Year 1 and Year 2

The Programme of Study for Wales states:

Children should be given opportunities to develop their skills, knowledge and understanding through:

- a developmentally appropriate curriculum where the seven (six in Welsh-medium settings/schools) Areas of Learning complement each other and work together
- continuous and enhanced provision and focused activities in the indoor and outdoor learning environments
- different types of play and a range of planned activities, including those that are child-initiated
- experiences that allow them to adopt a variety of roles, including leadership within a small group, paired learning or working within a team
- different resources, including ICT
- active learning opportunities that build on prior experiences and support them to become independent thinkers and learners
- activities that allow them to use their senses, be creative and imaginative
- tasks and challenges that encourage problem solving and discussion.

### Reception

Expectation	Topic	Activity
Developing Numerical Reasoning: Identifying processes and connections		
OR1a transfer mathematical skills to play and classroom activities	Numbers to 10	Count to 5 How many dots? Dot Display
OR1b identify steps to complete the task or reach a solution	Add and Subtract	Balance Numbers to 10 Model Addition Model Subtraction
OR1c select appropriate mathematics and techniques to use	Add and Subtract	Balance Numbers to 10 Model Addition Model Subtraction
OR1d select and use relevant number facts and mental strategies	Add and Subtract	Adding to 5 Subtracting from 5 Balance Numbers to 10 Adding to make 5 and 10 Adding to Ten Subtracting from 10 Model Addition Model Subtraction
OR1e select appropriate equipment and resources		

## Reception

Expectation	Topic	Activity
<b>Developing Numerical Reasoning: Identifying processes and connections</b>		
OR1f use knowledge and practical experience to inform estimations	Measurement	Which Holds More?
		How Full?
		How Many Dots
<b>Developing Numerical Reasoning: Represent and communicate</b>		
OR2a use everyday and mathematical language to talk about their own ideas and choices		
OR2b present work orally, pictorially and in written form, and use a variety of ways to represent collected data	Data	Same and Different
		Who has the Good?
		Making Graphs
		Sort It
OR2c devise and refine informal, personal methods of recording, moving to using words and symbols in number sentences	Add and Subtract	Model Addition
		Model Subtraction
		Adding to Ten
		Subtracting from Ten
<b>Developing Numerical Reasoning: Review</b>		
OR3a use checking strategies to decide if answers are reasonable	Add and Subtract	Model Addition
		Model Subtraction
		Adding to Ten
		Subtracting from Ten
OR3b interpret answers within the context of the problem and consider whether answers are sensible	Add and Subtract	Adding to 10 Word Problems
OR3c interpret information presented in charts and diagrams and draw appropriate conclusions	Data	Same and Different
		Who has the Good?
		Making Graphs
		Sort It
<b>Using Number Skills: Use number facts and relationships</b>		
ON1a recite a range of number rhymes and songs ❖		
ON1b count reliably up to 10 objects	Numbers to 10	Count to 5
		Dot Display
		How Many Dots?
		How Many?
		Matching Numbers to 10

## Reception

Expectation	Topic	Activity
<b>Using Number Skills: Use number facts and relationships</b>		
ON1c recite numbers up to 20, forwards and backwards, and from different starting points ❖	Numbers (2)	Matching Numbers to 20 Counting up to 20 Counting Back Within 20
ON1d read and write numbers to at least 10	Numbers (1)	Count to 5 Dot Display How Many Dots? How Many? Matching Numbers to 10
ON1e compare and order numbers to at least 10	Numbers to (1)	More or Less? More, Less or the same to 10 Order Numbers to 10
ON1f understand that zero means 'none' ❖	Numbers to 10	Concept of zero
ON1g use number facts up to 5 ❖	Add and Subtract	Adding to 5 Subtracting from 5
ON1h count in 2s to 10 and in 10s to 100 ❖	Numbers (2)	Counting by Tens
ON1i use ordinal numbers to 10 in daily activities and play ❖	Numbers to 10	Ordinal Numbers
ON1j begin to read number words ❖	Numbers to 10	Matching Numbers to 10
<b>Using Number Skills: Calculate using mental and written methods</b>		
ON3a mentally recall 'one more' of a number within 10 ❖	Numbers to 10	More, Less or the same to 10
ON3b mentally recall 'one less' of a number within 10 ❖	Numbers to 10	More, Less or the same to 10
ON3c combine two groups of objects to find 'how many altogether?'	Add and Subtract	Adding to make 5 and 10 Model Addition
ON3d take away objects to find 'how many are left?'	Add and Subtract	Model Subtraction
ON3e solve simple problems in a practical situation that involve simple addition and subtraction up to 5 ❖	Add and Subtract	Adding to 10 word problems
ON3f talk about addition and subtraction instructions in play activities ❖		

### Reception

Expectation	Topic	Activity
<b>Using Number Skills: Estimate and Check</b>		
ON4 make a sensible estimate of up to 10 objects that can be checked by counting ❖	Numbers to 10	How many dots?
<b>Using Number Skills: Manage money</b>		
ON5 use 1p, 2p, 5p and 10p coins to pay for items	Measurement	Everyday Money (GBP)
<b>Using Measuring Skills: Length, weight/mass, capacity</b>		
OM1 use direct comparisons with: – length, height and distance, e.g. longer/shorter than – weight/mass, e.g. heavier/lighter than – capacity, e.g. holds more/less than	Measurement	Compare Length
		How full?
		Which Holds More?
		Balancing Act
<b>Using Measuring Skills: Time</b>		
OM2a use the concept of time in terms of their daily activities		
OM2b sing/chant the days of the week, months and seasons of the year in meaningful contexts, e.g. when changing the class calendar ❖	Measurement	Days of the Week
		Months of the Year
OM2c demonstrate a developing sense of how long tasks and everyday events take		
<b>Using Measuring Skills: Temperature</b>		
OM3 use direct comparisons when describing temperature, e.g. hot/cold	Data	Hot or Cold?
<b>Using Geometry Skills: Shape</b>		
OG1a recognise and name common 2D shapes (circle, square, triangle and rectangle) and some 3D shapes (cube, cuboid and sphere) within play activities and the environment ❖	Shape and Space	Collect the Shapes
		Collect Simple Shapes
		Count Sides and Corners
OG1b use 2D and 3D shapes to make models and pictures ❖		
<b>Using Geometry Skills: Shape</b>		
OG3 complete a simple symmetrical picture through a variety of media ❖	Shapes and Space	Symmetry

### Reception

Expectation	Topic	Activity
Using Data Skills: Collect and record data, Present and analyse data, Interpret data		
OD1a sort and classify objects using one criterion	Data	Sort It Same and Different
OD1b record collections using marks, numbers or pictures	Data	Making Graphs
OD3 recognise and repeat three object/colour/clapped patterns and sequences.	Patterns	Complete the Pattern
		Simple Patterns
		Colour Patterns
		Missing it!





# Primary National Curriculum Alignment for Wales

Year 1

Expectation	Topic	Activity
<b>Developing Numerical Reasoning: Identifying processes and connections</b>		
1R1a transfer mathematical skills to play and classroom activities	Numbers to 20	Counting forwards Counting Backwards Matching Numbers to 20
1R1b identify steps to complete the task or reach a solution	Add and Subtract	Model Addition Model Subtraction Add and Subtract Problems Adding to 10 word problems
1R1c select appropriate mathematics and techniques to use	Add and Subtract	Add and Subtract Problems Adding to 10 word problems
	Multiply and Divide	Groups Share the Treasure
1R1d select and use relevant number facts and mental strategies	Add and Subtract	Balance Numbers to 10 Adding to make 5 and 10 Addition Facts
1R1e select appropriate equipment and resources		
1R1f use knowledge and practical experience to inform estimations		
<b>Developing Numerical Reasoning: Represent and Communicate</b>		
1R2a use everyday and mathematical language to talk about their own ideas and choices		
1R2b present work orally, pictorially and in written form, and use a variety of ways to represent collected data	Data	Same and Different Who has the Good? Making Graphs Sorting Data
1R2c devise and refine informal, personal methods of recording, moving to using words and symbols in number sentences	Add and Subtract	Model Addition
		Model Subtraction
		Adding to Ten
		Subtracting from Ten
<b>Developing Numerical Reasoning: Review</b>		
OR3a use checking strategies to decide if answers are reasonable	Add and Subtract	Model Addition
		Model Subtraction
		Adding to Ten
		Subtracting from Ten
OR3b interpret answers within the context of the problem and consider whether answers are sensible	Add and Subtract	Adding to 10 Word Problems
		Add and Subtract Problems

## Year 1

Expectation	Topic	Activity
<b>Developing Numerical Reasoning: Review (Continued)</b>		
OR3c interpret information presented in charts and diagrams and draw appropriate conclusions	Data	Same and Different
		Who has the Good?
		Making Graphs
		Sorting Data
<b>Using Number Skills: Use number facts and relationships</b>		
1N1a count sets of objects by grouping in 2s, 5s or 10s	Multiply and Divide	Groups of Two
		Groups of Ten
		Groups of Five
		Groups
1N1b recite numbers beyond 100, forwards and backwards and from different starting points ❖	Numbers (1)	Counting Forwards
	Numbers (2)	Counting Backwards
1N1c read and write numbers to at least 100 ▲	Numbers (1)	Number Lines
		Counting Forwards
1N1d compare and order 2-digit numbers	Numbers (1)	Counting Backwards
		Number Lines
		Order Numbers to 20
		Before, After and Between to 20
	Numbers (2)	More, Less of the Same to 10
		More, Less or the Same to 20
		Which is Bigger?
		Which is Smaller?
1N1e demonstrate an understanding of place value up to at least 100 ❖	Numbers (2)	Before, After & Between to 100
		Arranging Numbers
		Compare Numbers to 50
		Making Big Numbers Count
1N1f use mental recall of number facts to 10 to derive other facts, i.e.: – doubling and halving, e.g. derive 40 + 40 from knowing 4 + 4	Patterns and Relationships	Place Value 1
		Making Teen Numbers
1N1g recall doubles up to 20 ❖	Patterns and Relationships	Make Numbers Count
1N1h recognise and understand odd and even numbers up to 100 ❖	Patterns and Relationships	Doubles and Halves to 10
		Doubles and Halves to 20
		Doubles and Halves to 20
		Odd or Even
		Odd and Even Numbers 1



Year 1

Expectation	Topic	Activity
Using Number Skills: Use number facts and relationships (Continued)		
1N1i count in 2s, 5s and 10s from any given number ❖	Numbers (3)	Counting on a hundred Grid Counting by Twos Counting by Fives Counting by Tens Count by Twos Count by Fives Count by Tens Count by 2s, 5s and 10s
Using Number Skills: Fractions, Decimals, Percentages and Ratio		
1N2a find halves in practical situations	Fractions	Halves Is it Half? Halves and Quarters
1N2b recall halves up to 10 ❖	Patterns and Relationships	Doubles and Halves to 10
Using Number Skills: Calculate using mental and written methods		
1N3a mentally recall 'one more' or a number within 20 ❖	Patterns and Relationships	1 More, 2 Less 1 More, 10 Less
	Numbers (1)	Counting Forwards
1N3b mentally recall 'one less' of a number within 20 ❖	Numbers (1)	Counting Backwards
1N3c use 'counting on' strategies to add two collections, starting with the largest number, e.g. $8 + 5$	Add and Subtract	Adding to Ten Model Addition Addition Facts
		Model Addition Addition Facts
1N3d add and subtract numbers involving up to 10 objects	Add and Subtract	Adding to Ten Model Addition Addition Facts Addictive Addition Adding to 10 Word Problems
		Adding to 10 Word Problems
1N3e use a range of strategies to mentally solve problems within 10 ❖	Add and Subtract	Adding to Ten Model Addition Addition Facts Addictive Addition Adding to 10 Word Problems
1N3f solve one-step problems that involve addition and subtraction, including missing number problems, e.g. $7 + \square = 9$ , using concrete objects and pictorial representations ❖	Add and Subtract	Adding to 10 Word Problems

Expectation	Topic	Activity
<b>Using Number Skills: Calculate using mental and written methods (continued)</b>		
1N3g use known facts to solve simple problems within 10, e.g. doubling and halving, number bonds ❖	Patterns and Relationships	Doubles and Halves to 10 Doubles and Halves to 20 Adding to Make 5 and 10 Balance Numbers to 10
1N3h use known number facts when adding three single digit numbers and realise addition can be done in any order ❖	Patterns and Relationships	Adding in Any Order Add Three 1-Digit Numbers
1N3i understand and use the mathematical symbols for addition, subtraction and equals ❖	Add and Subtract	Model Addition Model Subtraction Balance Numbers to 10 Adding to Make 5 and 10 Additive Addition Addition Facts Add Three 1-Digit Numbers Subtraction facts to 18
1N3j understand and use the different mathematical terms for addition and subtraction, e.g. add, combine, find the difference ❖	Add and Subtract	Model Addition Model Subtraction Balance Numbers to 10 Adding to Make 5 and 10 Additive Addition Addition Facts Add Three 1-Digit Numbers Subtraction facts to 18
1N4a make a sensible estimate of a number of objects that can be checked by counting		
1N4b make a sensible estimate of measurement in length, height, weight and capacity that can be checked using non-standard measures ❖	Measurement	Comparing Length Everyday Length Everyday Mass
1N5a use different combinations of money to pay for items up to 20p	Measurement	Everyday Money (GBP) Money (GBP)
1N5b find totals and give change from 10p	Measurement	Everyday Money (GBP) Money (GBP)
<b>Using Measuring Skills: Length, weight/mass, capacity</b>		
1M1 use non-standard units to measure: – length, height and distance – weight/mass – capacity	Measurement	Everyday Length Everyday Mass Measuring Length with Blocks

Year 1

Expectation	Topic	Activity
<b>Using Measuring Skills: Time</b>		
1M2a use the concept of time in terms of their daily and weekly activities and the seasons of the year		
1M2b understand and order the days of the week, the months and seasons of the year in meaningful contexts ❖	Measurement	Days of the Week Months of the Year
1M2c use standard units of time to read 'o'clock' using both analogue and 12-hour digital clocks	Measurement	Tell Time to the Hour (UK)
<b>Using Measuring Skills: Temperature</b>		
1M3 use descriptive words for a range of temperatures, e.g. cooler/warmer		
<b>Using Measuring Skills: Area and volume, Angle and position</b>		
1M4a make whole turns and half turns		
1M4b describe position, direction and movement ❖	Shape and Space	Left or Right? Where is it? Flip, Slide, Turn
<b>Using Geometry Skills: Shape</b>		
1G1a recognise and name common 2D shapes (square, triangle, rectangle, circle and semi-circle) and 3D shapes (cube, cuboid, cone and sphere) in order to begin to compare and sort ❖	Shape and Space	Collect Simple Shapes Collect the Shapes 1 Match the Solid 1 Count Sides and Corners
1G1b use 2D and 3D shapes and describe how they fit together ❖		
1G3 recognise and complete a symmetrical picture or simple shape ❖	Shape and Space	Symmetry
<b>Using Data Skills: Collect and record, Present and analyse data, Interpret data</b>		
1D1a sort and classify objects using more than one criterion	Data	Sorting Data
1D1b collect information by voting or sorting and represent it in pictures, objects or drawings	Data	Pictographs Making Graphs Bar Chart Who has the Goods?
1D1c make lists and tables based on data collected		

Year 1

Expectation	Topic	Activity
Using Data Skills: Pattern		
1D3 demonstrate an understanding of repeating patterns, including shape and number, by describing, reproducing and extending. ❖	Patterns and Relationships	Simple Patterns
		Complete the Pattern
		Missing It!
		Pattern Error
	Numbers (3)	Count by Twos
		Count by Fives
		Count by Tens
		Count by 2s, 5s and 10s

## Year 2

Expectation	Topic	Activity
<b>Developing Numerical Reasoning: Identifying processes and connections</b>		
2R1a transfer mathematical skills to play and classroom activities	Numbers (1)	Order Numbers to 20 Compare Numbers to 20 1st to 31st
2R1b identify steps to complete the task or reach a solution	Add and Subtract	Balance Numbers to 20 All about Twenty Problems: Add and Subtract
2R1c select appropriate mathematics and techniques to use	Add and Subtract	Balance Numbers to 20 All about Twenty Problems: Add and Subtract
2R1d select and use relevant number facts and mental strategies	Add and Subtract	All about Twenty Add Three 1-Digit Numbers Balance Numbers to 20 Additive Addition Simple Subtraction
	Patterns and Relationships	Doubles and Halves to 20 Counting by Fives Counting by Tens Counting by 2s, 5s and 10s Odd or Even 1 More, 10 Less 10 More, 10 Less
2R1e select appropriate equipment and resources		
2R1f use knowledge and practical experience to inform estimations		
<b>Developing Numerical Reasoning: Represent and communicate</b>		
2R2a use everyday and mathematical language to talk about their own ideas and choices		
2R2b present work orally, pictorially and in written form, and use a variety of ways to represent collected data	Data	Tallies Picture Graphs Column Graphs Interpreting Tables
2R2c devise and refine informal, personal methods of recording, moving to using words and symbols in number sentences	Add and Subtract	Additive Addition Simple Subtraction Balance Numbers to 20



## Year 2

Expectation	Topic	Activity	
<b>Developing Numerical Reasoning: Review</b>			
2R3a use checking strategies to decide if answers are reasonable	Add and Subtract	Additive Addition Simple Subtraction Balance Numbers to 20 Problems: Add and Subtract	
2R3b interpret answers within the context of the problem and consider whether answers are sensible	Add and Subtract	Problems: Add and Subtract	
2R3c interpret information presented in charts and diagrams and draw appropriate conclusions	Data	Interpreting Tables Picture Graphs Column Graphs	
<b>Using Number Skills: Use number facts and relationships</b>			
2N1a count sets of objects by grouping in 2s, 5s or 10s	Patterns and Relationships	Count by Twos Counting by Two Count by Fives Counting by Five Count by Ten Counting by Ten Count by 2s, 5s, 10s	
2N1b recite numbers beyond 100, forwards and backwards and from different starting points ❖			
2N1c read and write numbers to at least 100 ▲	Numbers (2)	Counting on a 100 grid Number Line Order Going Up Going Down	
2N1d compare and order 2-digit numbers	Numbers (1)	Order Numbers to 20 Compare Numbers to 20 Before, After & Between to 20	
		Numbers (2)	Compare Numbers to 50 Number Line Order The Number Line
			Numbers (3)
	Numbers (2)		

## Year 2

Expectation	Topic	Activity
<b>Using Number Skills: Use number facts and relationships (Continued)</b>		
2N1f use mental recall of number facts to 10 to derive other facts, i.e.: – doubling and halving, e.g. derive $40 + 40$ from knowing $4 + 4$ – bonds of 10, e.g. derive $60 + 40$ from knowing $6 + 4$	Patterns and Relationships (1)	1 More, 10 Less 10 More, 10 Less Doubles and Halves to 20 Odd or Even
	Add and Subtract	All About Twenty Balance Numbers to 20 Add 3 Numbers Using Number Bonds
2N1g recall doubles up to 20 ❖	Patterns and Relationships (1)	Doubles and Halves to 20
2N1h recognise and understand odd and even numbers up to 100 ❖	Patterns and Relationships (1)	Odd or Even
		Odd and Even Numbers 1
2N1i count on in 2s, 5s and 10s from any given number ❖	Patterns and Relationships (2)	Counting by Twos
		Count by Twos
		Counting by Fives
		Count by Fives
		Counting by Tens
		Count by Tens
2N1j recall and use 2, 5 and 10 multiplication tables	Multiply and Divide	Count by 2s, 5s and 10s
		Groups of Two
		Groups of Five
		Groups of Ten
2N1k begin to link multiplication with simple division, e.g. grouping and sharing in 2s, 5s and 10s ❖	Multiply and Divide	Model Multiplication to $5 \times 5$
		Groups of Two
		Groups of Five
		Groups of Ten
		Dividing by Two
		Dividing by Five
		Dividing Tens
2N1l use and record ordinal numbers in practical situations ❖	Numbers (1)	1st to 31st
2N1m read and write number words to 100 ❖		
<b>Using Number Skills: Fractions, Decimals, Percentages and Ratio</b>		
2N2a find halves and quarters in practical situations		
2N2b partition 2-digit numbers and know the value of each digit ❖	Numbers (2)	Place Value 1
		Make Big Numbers Count
<b>Using Number Skills: Calculate using mental and written methods</b>		
2N3a mentally add 10 or 20 to a given number up to 100 ❖	Patterns and Relationships (1)	10 More, 10 Less

## Year 2

Expectation	Topic	Activity
Using Number Skills: Calculate using mental and written methods		
2N3b mentally subtract 10 or 20 from a given number up to 100 ❖	Patterns and Relationships (1)	10 More, 10 Less 1 More, 10 Less
	Add and Subtract	Subtract Tens
2N3c find small differences within 20 by using 'counting on' strategies	Add and Subtract	Simple Subtraction
2N3d use mental recall of number facts to 10 and place value to add or subtract larger numbers, e.g. $24 + 4$ , $30 + 5$ , $34 + 10$	Add and Subtract	Balance Numbers to 20
		Balance Additions to 20
		Additive Addition
2N3e find a small difference between two numbers by counting on, e.g. $44 - 28 = \dots$ ❖	Add and Subtract	Simple Subtraction
2N3f solve one- and two-step problems that involve addition and subtraction, multiplication and simple division including missing number problems, e.g. $40 - \dots = 19$ ❖	Add and Subtract	Missing Numbers
2N3g use partitioning strategies to double and halve 2-digit numbers ❖		
2N3h understand that multiplication is repeated addition, e.g. $2 + 2 + 2$ is the same as 'three twos' ❖	Multiply and Divide	Groups of Two
		Groups of Five
		Groups of Ten
		Multiplication Arrays Frog Jump Multiplication
2N3i add/subtract 9 or 11 from given number by adding/subtracting 10 and adjusting ❖		
2N3j understand and use mathematical symbols for addition, subtraction, multiplication, division and equals ❖	Add and Subtract	Balance Additions to 20 All About Twenty Missing numbers
	Multiply and Divide	Multiplication Arrays Frog Jump Multiplication

Expectation	Topic	Activity
<b>Using Number Skills: Calculate using mental and written methods (Continued)</b>		
2N3k understand and use the different mathematical terms for addition, subtraction, multiplication, division and equals, e.g. find the total, share, goes into ❖	Add and Subtract	Add Three 1-Digit Numbers
		Add 3 Numbers Using Bonds
		All About Twenty
		Addictive Addition
		Balance Numbers to 20
		Balance Numbers to 20
		Simple Subtraction
		Problems: Add and Subtract
		Subtract Tens
		Missing Numbers
	Multiply and Divide	Groups of Two
		Groups of Five
		Groups of Ten
		Dividing by Two
		Dividing by Five
		Dividing Tens
		Multiplicatoin Arrays
		Model Multiplication to 5 x 5
		Make Fair Shares
		Frog Jump Multiplication
<b>Using Number Skills: Estimate and check</b>		
2N4a use checking strategies: – repeat addition in a different order – use halving and doubling within 20	Add and Subtract	Balance Numbers to 20
		Balance Numbers to 20
	Patterns and Relationships (1)	All About Twenty
2N4b make a sensible estimate of measurement in length, height, weight and capacity that can be checked using standard measures ❖	Measurement	Addictive Addition
		Double and Halves to 20
		How Long is That?
Using Number Skills: Manage money	Measurement	How Heavy?
		How Full?
2N5a use different combinations of money to pay for items up to £1	Measurement	Who has the Money? (GBP)
2N5b find totals and give change from multiples of 10p	Measurement	Identify Everyday Money (GBP)
2N5b find totals and give change from multiples of 10p	Measurement	Who has the Money? (GBP)
2N5b find totals and give change from multiples of 10p	Measurement	Identify Everyday Money (GBP)
<b>Using Measuring Skills: Length, weight/mass, capacity</b>		
2M1a use standard units to measure: – length, height and distance: metres, half metres or centimetres – weight/mass: kilograms or 10 gram weights – capacity: litres	Measurement	How Long is that?
		Measure to the Nearest Half Centimetre
		How Heavy?
		How Full?

### Year 2

Expectation	Topic	Activity
Using Measuring Skills: Length, weight/mass, capacity (continued)		
2M1b use symbols related to length, weight/mass and capacity ❖	Measurement	How Long is that?
		Measure to the Nearest Half Centimetre
		How Heavy?
		How Full?
Using Measuring Skills: Time		
2M2a read hours and minutes on a 12-hour digital clock	Measurement	Tell Time to the Hour
		Tell Time to the Half Hour (UK)
		Quarter to and Quarter past
2M2b record the days of the week, the months and seasons of the year ❖	Measurement	Days of the Week
		Months of the Year
2M2c read 'half past', 'quarter past' and 'quarter to' on an analogue clock	Measurement	Tell Time to the Hour
		Tell Time to the Half Hour (UK)
		Quarter to and Quarter past
Using Measuring Skills: Temperature		
2M3 compare daily temperatures using a thermometer (°C)		
Using Measuring Skills: Area and volume, Angle and position		
2M4a recognise half and quarter turns, clockwise and anti-clockwise	Shape and Space	Flip, Slide, Turn
2M4b recognise that a quarter turn is a right angle		
2M4c use mathematical vocabulary to describe position, direction and movement ❖	Shape and Space	Flip, Slide, Turn
		Left or Right?
		Where is it?
Using Geometry Skills: Shape		
2G1a recognise and name regular and irregular 2D and 3D shapes, understand and use the properties of shape ❖	Shape and Space	Collect the Shapes
		Relate Shapes and Solids
		Match the Solids 2
		Count Sides and Corners
2G1b make increasingly more complex or accurate models with 3D shapes and tessellate 2D shapes ❖		
Using Geometry Skills: Movement		
2G3 identify a line of symmetry for 2D shapes and complete symmetrical pictures ❖	Shape and Space	Symmetry
		Symmetry or Not?
Using Data Skills: Collect and record, Present and analyse data, Interpret data		
2D1a sort and classify objects using more than two criterion ❖		



Year 2

Expectation	Topic	Activity
Using Data Skills: Collect and record, Present and analyse data, Interpret data (Continued)		
2D1b gather and record data from: – lists and tables – diagrams – block graphs – pictograms where the symbol represents one unit	Data	Tallies
		Picture Graphs
		Column Graphs
		Interpreting Tables
2D1c extract and interpret information from lists, tables, diagrams and graphs	Data	Tallies
		Picture Graphs
		Column Graphs
		Interpreting Tables



# Primary National Curriculum Alignment for Wales

Year 3

Expectation	Topic	Activity
<b>Developing Number Reasoning: Identifying processes and connections</b>		
3R1a transfer mathematical skills to a variety of contexts and everyday situations	Add and Subtract	Problems: Add and Subtract
	Multiply and Divide	Multiplication Problems 1
3R1b identify the appropriate steps and information needed to complete the task or reach a solution	Add and Subtract	Problems: Add and Subtract
	Multiply and Divide	Multiplication Problems 1
3R1c select appropriate mathematics and techniques to use	Patterns and Relationships	Skip Counting
		Count Forward Patterns
		Count Backward Patterns
		Pyramid Puzzles 1
		Missing Values
		Partition Puzzles 1
3R1d select and use suitable instruments and units of measurement	Measurement	Bar Model Problems 1
		How Long is That?
		Measure to the Nearest Half Centimetre
		How Heavy?
3R1e choose an appropriate mental or written strategy and know when it is appropriate to use a calculator	Add and Subtract- Mental	Which Unit of Measurement?
		Temperature
		Problems: Add and Subtract
		Fact Families: Add and Subtract
		Related Facts 1
		Complements to 10, 20, 50
		Complements to 50 and 100
		Estimate Sums
		Estimate Differences
		Find the Missing Number 1
3R1f estimate and visualise size when measuring and use the correct units	Measurement	Problems: Add and Subtract
		Multiplication Problems 1
<b>Developing Number Reasoning: Represent and communicate</b>		
3R2a explain results and procedures clearly using mathematical language		

Year 3

Expectation	Topic	Activity
<b>Developing Number Reasoning: Represent and communicate (Continued)</b>		
3R2b refine informal methods of recording written calculations, moving to formal methods of calculation when developmentally ready	Add and Subtract	Columns that Add
		Columns that Subtract
		Column Addition 1
		Column Subtraction
		Add Two 2-Digit Numbers
		Add Three 2-Digit Numbers
		Subtract Numbers 2-Digit Differences
3R2c use appropriate notation, symbols and units of measurement	Measurement	How Long is That?
		Measure to the Nearest Half Centimetre
		How Heavy?
		Which Unit of Measurement? Temperature
3R2d select and construct appropriate charts, diagrams and graphs with suitable scales	Data	Picture Graphs
		Interpreting Tables
		Reading from a Column Graph
		Venn Diagrams
		Add and Subtract Using Graphs Carroll Diagram
3R2e recognise, and generalise in words, patterns that arise in numerical, spatial or practical situations ❖	Patterns and Relationships	Count Forward Patterns
		Count Backward Patterns
		Skip Counting
3R2f visualise and describe shapes, movements and transformations ❖	Shape	How many Edges?
		How many Faces?
		How many Corners?
<b>Developing Number Reasoning: Review</b>		
3R3a select from an increasing range of checking strategies to decide if answers are reasonable	Add and Subtract- Mental	Problems: Add and Subtract
		Fact Families: Add and Subtract
		Related Facts 1
		Complements to 10, 20, 50
		Complements to 50 and 100
		Estimate Sums
		Estimate Differences
		Find the Missing Number 1
		Multiply and Divide
	Multiplicaton Promblems 1	

Expectation	Topic	Activity
<b>Developing Number Reasoning: Review</b>		
3R3b interpret answers within the context of the problem and consider whether answers, including calculator, analogue and digital displays, are sensible	Add and Subtract- Mental	Problems: Add and Subtract
		Fact Families: Add and Subtract
		Related Facts 1
		Complements to 10, 20, 50
		Complements to 50 and 100
		Estimate Sums
		Estimate Differences
		Find the Missing Number 1
3R3c draw conclusions from data and recognise that some conclusions may be misleading or uncertain	Data	Problems: Add and Subtract
		Picture Graphs
		Interpreting Tables
		Reading from a Column Graph
		Venn Diagrams
		Add and Subtract Using Graphs
		Caroll Diagram
<b>Using Number Skills: Use number facts and relationships</b>		
3N1a read and write numbers to 1 000	Number and Place Value to 1000	Model Numbers Place Value 2
3N1b compare and estimate with numbers up to 100	Number and Place Value to 100	Which is Bigger?
		Which is smaller?
		Greater or Less to 100
		Compare Numbers to 100
		Before, After & Between to 100
		Arranging Numbers
3N1c explain the value of a digit in numbers up to 1 000 ❖	Number and Place Value to 1000	Place Value 2
		Partition and Rename 1
		Place Value Partitioning
		Expanding Numbers
		Model Numbers
3N1d use mental strategies to recall number facts within 20	Add and Subtract- Mental	All about Twenty Complements to 10, 20 and 50
3N1e recall 2, 3, 4, 5 and 10 multiplication tables and use to solve multiplication and division problems	Multiply and Divide	Groups of Three
		Groups of Four
		Dividing Twos
		Dividing Fives
		Dividing Tens
		Multiplication Problems 1

## Year 3

Expectation	Topic	Activity
<b>Using Number Skills: Use number facts and relationships (Continued)</b>		
3N1f multiply numbers by 10		
3N1g identify multiples of 2, 3, 4, 5 and 10; use the term multiple ❖	Multiply and Divide	Multiples of
3N1h identify odd and even numbers up to 1 000 ❖	Patterns and Relationships	Odd or Even Odd and Even Numbers 1
<b>Using Number Skills: Fractions, decimals, percentages and ratios</b>		
3N2a use halves and quarters	Fractions	Halves and Quarters Partition into Equal Parts
3N2b halve 2-digit numbers in the context of number, money and measures		
3N2c find fractional quantities linked to known multiplication facts, e.g. $\frac{1}{3}$ of 18,	Fractions	Unit Fractions Fractions of a Collection 1
3N2d recognise a quarter as a half of a half ❖		
<b>Using Number Skills: Calculate using mental and written methods</b>		
3N3a find differences within 100	Add and Subtract - Mental	Estimate Differences Related Facts 1 Find the Missing Number 1
3N3b use mental strategies to add and subtract 2-digit numbers	Add and Subtract - Mental	Additive Addition Subtract Numbers Find the Missing Number 1
3N3c use partitioning to double and halve 2-digit numbers		
3N3d define a negative number as being less than 0 ❖		
<b>Using Number Skills: Estimate and check</b>		
3N4a check subtraction using addition	Add and Subtract - Mental	Fact Families: Add and Subtract Related Facts 1 Find the Missing Number 1
3N4b check halving using doubling	Patterns and Relationships	Doubles and Halves to 20
3N4c check multiplication using repeated addition	Multiply and Divide	Frog Jump Multiplication
<b>Using Number Skills: Manage money</b>		
3N5a to pay for items up to £2 and calculate the change	Measurement	Money - Adding (GBP) Who has the Money?
3N5b order and compare items up to £10		
3N5c record money spent and saved		



## Year 3

Expectation	Topic	Activity
<b>Using Measuring Skills: Length, weight/mass, capacity</b>		
3M1a recognise that perimeter is the distance around a shape	Measurement	Perimeter of Shapes
3M1b use standard units to estimate and measure: – length: measure on a ruler to the nearest ½ cm – weight/mass: use 5g, 10g and 100g weights – capacity: use litres and half litres; measure to the nearest 100ml ▲	Measurement	Measure to the Nearest Half Centimetre
		How Long is That?
		How Heavy?
		Temperature
<b>Using Measuring Skills: Time</b>		
3M2a tell the time to the nearest 5 minutes on an analogue clock and calculate how long it is to the next hour	Measurement	Five Minute Times
3M2b read hours and minutes on a 12-hour digital clock using am/pm conventions	Measurement	Quarter to and Quarter past
3M2c calculate start times, finish times and durations using hours, 30-minute intervals and 15-minute intervals ❖	Measurement	Elapsed Time
<b>Using Measuring Skills: Temperature</b>		
3M3 take temperature readings using thermometers and interpret readings above and below 0°C	Measurement	Temperature
<b>Using Measuring Skills: Area and volume, Angle and position</b>		
3M4a find areas by counting squares	Space	Area of Shapes
		Biggest Shape
		Equal Areas
3M4b identify right angles ❖	Shape	Right Angle Relation
3M4c recognise that two right angles make a half turn, and that four right angles make a full turn ❖		
3M4d describe an angle as more or less than a right angle ❖	Shape	Right Angle Relation
3M4e use the four compass points to describe directions	Space	What Direction was That?

Year 3

Expectation	Topic	Activity
<b>Using Geometry Skills: Shape</b>		
3G1a recognise and classify triangles, squares, rectangles, pentagons and hexagons, including irregular cases ❖	Shape	Collect the Shapes 1
		Collect More Shapes
3G1b identify congruent shapes ❖		
3G1c recognise 3D shapes, including prisms ❖		
<b>Using Geometry Skills: Construction</b>		
3G2 draw lines to the nearest half centimetre ❖		
<b>Using Geometry Skills: Movement</b>		
3G3a identify lines of symmetry in 2D shapes ❖	Shape	Symmetry
		Lines of Symmetry
3G3b draw horizontal and vertical lines of symmetry ❖		
<b>Using Algebra Skills: Number Sequences</b>		
3A1a explore sequences of whole numbers involving addition and subtraction, e.g. counting in 2s, 3s and 4s from different starting points ❖	Patterns and Relationships (1)	Skip Counting
		Skip Counting with Coins
	Multiply and Divide	Count Forward Patterns
		Count Backward Patterns
		Count by 2s, 5s and 10s
3A1b write the next two (or more) terms in sequences that involve addition or subtraction ❖	Patterns and Relationships (1)	Groups of Three
		Groups of Four
3A1b write the next two (or more) terms in sequences that involve addition or subtraction ❖	Patterns and Relationships (1)	Count by 2s, 5s and 10s
<b>Using Algebra Skills: Function Graphs</b>		
3A3 use one and two step function machines to generate input and output involving addition and subtraction within 100; express, in words, the operations of function machines ❖		
<b>Using Algebra Skills: Equations and inequalities</b>		
3A4a find an 'unknown' in one step equations and use this to derive other facts, e.g. $37 + \square = 100$ therefore $100 - 37 = \square$ ❖	Patterns and Relationships (2)	Missing Vaules
	Add and Subtract - Mental	Fact Families: Add and Subtract Related Facts 1

Year 3

Expectation	Topic	Activity
<b>Using Algebra Skills: Equations and inequalities</b>		
3A4b list numbers that are 'greater than' or 'less than' another number ❖	Number and Place Value (1)	Ascending Order Descending Order Which is Less? Which is More?
3A4c read statements about numbers expressed using an inequality sign, e.g. $6 > 4$ ❖	Number and Place Value (1)	Compare Numbers to 100
<b>Using Data Skills:</b>		
3D1a represent data using: – lists, tally charts, tables and diagrams – bar charts and bar line graphs labelled in 2s, 5s and 10s – pictograms where one symbol represents more than one unit using a key – Venn and Carroll diagrams	Statistics	Interpreting Tables Tallies Carroll Diagram Pictographs Bar Graphs 1 Bar Graphs 2 Reading from a Bar Chart
3D1b extract and interpret information from charts, timetables, diagrams and graphs.	Statistics	Interpreting Tables Tallies Carroll Diagram Pictographs Bar Graphs 1 Bar Graphs 2 Reading from a Bar Chart

Expectation	Topic	Activity
Developing Number Reasoning: Identifying processes and connections		
4R1a transfer mathematical skills to a variety of contexts and everyday situations	Add and Subtract - Mental	Find the Missing Number 1
		Problems: Add and Subtract
4R1b identify the appropriate steps and information needed to complete the task or reach a solution	Add and Subtract - Mental	Problems: Add and Subtract
		Related Facts 1
		Find the Missing Number 1
4R1c select appropriate mathematics and techniques to use	Multiply and Divide - Written	Related Facts 2
		Problems: Add and Subtract
	Add and Subtract - Mental	Related Facts 1
Multiply and Divide - Written		Find the Missing Number 1
	Patterns and Relationships	Related Facts 2
Pick the Next Number		
Describing Patterns		
Count Forwards Patterns		
4R1d select and use suitable instruments and units of measurement	Measurement	Count Backwards Patterns
		Measuring Length
4R1e choose an appropriate mental or written strategy and know when it is appropriate to use a calculator	Add and Subtract - Mental	How Heavy?
		Problems: Add and Subtract
		Fact Families: Add and Subtract
		Complements to 10, 20, 50
		Complements to 50 and 100
		Related Facts 1
		Estimate sums
		Estimate Differences
	Find the Missing Number 1	
	Multiply and Divide - Facts	Pyramid Puzzles 1
		Groups of Three
		Groups of Four
		Groups of Six
		Dividing Threes
	Multiply and Divide - Written	Dividing Fours
Dividing Sixes		
4R1f estimate and visualise size when measuring and use the correct units	Measurement	Related Facts 2
		Measuring Length
		How Heavy?

Expectation	Topic	Activity
<b>Developing Number Reasoning: Represent and communicate</b>		
4R2a explain results and procedures clearly using mathematical language		
4R2b refine informal methods of recording written calculations, moving to formal methods of calculation when developmentally ready	Add and Subtract - Written	Strategies for Column Addition (UK)
		Subtract Numbers: Regroup
		Add Numbers: Regroup a Ten
		Add Two 2-Digit Numbers
		2-Digit Differences
		2-Digit Differences: Regroup
		Add Three 2-Digit Numbers
	Add Three 2-Digit Numbers: Regroup (UK)	
	Multiply and Divide - Written	Multiply: 2-Digit by 1-Digit
		Multiply: 1-Digit Number
		Multiply 1-Digit Number, Regroup
		Mental Methods Multiplication 1
		Divide: 1-Digit Divisor
		Mental Methods Division
Grid Methods 1		
Related Facts 2		
4R2c use appropriate notation, symbols and units of measurement	Measurement	Measuring Length
		Perimeter
		Using a Litre
		How Heavy?
4R2d select and construct appropriate charts, diagrams and graphs with suitable scales		
Describing Patterns		
Count Forward Patterns		
Count Backward Patterns		



Expectation	Topic	Activity
<b>Developing Number Reasoning: Represent and communicate</b>		
4R2f visualise and describe shapes, movements and transformations ❖	Space	What Direction was That?
		Map Coordinates
	Shape	Sides, Angles and Diagonals
		Collect More Shapes
		Faces, Edges and Vertices
		Collect the Polygons
Triangle Tasters		
<b>Developing Number Reasoning: review</b>		
4R3a select from an increasing range of checking strategies to decide if answers are reasonable	Add and Subtract - Mental	Estimate Sums
		Estimate Differences
4R3b interpret answers within the context of the problem and consider whether answers, including calculator, analogue and digital displays, are sensible	Add and Subtract - Mental	Problems: Add and Subtract
		Fact Families: Add and Subtract
		Complements to 10, 20, 50
		Complements to 50 and 100
		Related Facts 1
		Estimate Sums
		Estimate Differences
		Find the Missing Number 1
Pyramid Puzzles 1		
4R3c draw conclusions from data and recognise that some conclusions may be misleading or uncertain	Data	Bar Graphs 1
		Line Graphs: Interpretation
<b>Using Number Skills: Use number facts and relationships</b>		
4N1a read and write numbers to 10 000	Number and Place Value to 1000	Model Numbers
		Place Value 2
		Partition and Rename 1
		Place Value Partitioning
	Number and Place Value to 10 000	Place Value to Thousands
		Place Value 3
Partition and Rename 2		
4N1b compare and estimate with numbers up to 1 000		

Year 4

Expectation	Topic	Activity
<b>Using Number Skills: Represent and communicate (Continues)</b>		
4N1c use mental strategies to recall multiplication tables for 2, 3, 4, 5, 6 and 10 and use to solve division problems	Multiply and Divide - Facts	Groups of Two Groups of Three Groups of Four Groups of Five Groups of Six Groups of Ten Dividing Twos Dividing Threes Dividing Fours Dividing Fives Dividing Sixes Dividing Tens
4N1d multiply and divide numbers by 10 and 100	Multiply and Divide - Facts	Place Value 1 (x10 and ÷10)
4N1e identify multiples of 2, 3, 4, 5, 6 and 10; use the terms multiple and factor	Multiply and Divide - Facts	Groups of Two Groups of Three Groups of Four Groups of Five Groups of Six Groups of Ten Dividing Twos Dividing Threes Dividing Fours Dividing Fives Dividing Sixes Dividing Tens
<b>Using Number Skills: Fractions, decimals, percentages and ratio</b>		
4N2a halve 3-digit numbers in the context of number, money and measures		
4N2b find fractional quantities using known table facts, e.g. $\frac{1}{6}$ of 30cm	Fractions	Unit Fractions Fraction Fruit Sets 1 Fractions of a Collection 2
4N2c recognise fractions that are several parts of a whole, e.g. $\frac{2}{3}$ , $\frac{3}{10}$	Fractions	Model Fractions Thirds and Sixths Part-whole Rods 1 What Fraction is Shaded? What Mixed Number is Shaded?

Expectation	Topic	Activity
<b>Using Number Skills: Calculate using mental and written methods</b>		
3N3a find differences within 100	Add and Subtract - Mental	Problems: Add and Subtract Fact Families: Add and Subtract Complements to 10, 20, 50 Complements 10 50 and 100 Estimate Differences Find the Missing Number 1 Pyramid Puzzles 1
	Add and Subtract - Written	2-Digit Differences Subtract Numbers: Regroup 2-Digit Differences: Regroup
3N3b use mental strategies to add and subtract 2-digit numbers	Add and Subtract - Mental	Problems: Add and Subtract Fact Families: Add and Subtract Complements to 10, 20, 50 Complements 10 50 and 100 Related Facts 1 Estimate Sums Estimate Differences Find the Missing Number 1 Pyramid Puzzles 1
3N3c use partitioning to double and halve 2-digit numbers		
3N3d define a negative number as being less than 0 ❖		
<b>Using Number Skills: Estimate and check</b>		
4N4a check answers using inverse operations	Add and Subtract - Mental	Fact Families: Add and Subtract Related Facts 1
4N4b estimate by rounding to the nearest 10 or 100	Number and Place Value to 1000	Nearest 10? Nearest 100?
<b>Using Number Skills: Manage money</b>		
4N5a use money to pay for items up to £10 and calculate the change	Measurement	How Much change? (GBP)
4N5b order and compare items up to £100		

Year 4

Expectation	Topic	Activity
<b>Using Number Skills: Manage money (Continued)</b>		
4N5c add and subtract totals less than £10 using correct notation, e.g. £6.85 – £2.76		
4N5d manage money, compare costs from different retailers and determine what can be bought within a given budget		
<b>Using Measuring Skills: Length, weight/ mass, capacity</b>		
4M1a measure and calculate the perimeter of squares and rectangles	Measurement	Perimeter: Squares and Rectangles
4M1b select and use appropriate standard units to estimate and measure length, weight/mass and capacity ❖	Measurement	Measuring Length
		Using a Litre
		How Heavy?
		Temperature
4M1c measure on a ruler to the nearest mm and record using a mix of units, e.g. 1cm 3mm		
4M1d measure capacities to the nearest 50ml or 100ml		
4M1e convert metric units of length to smaller units, e.g. cm to mm, m to cm, km to m	Measurement	Converting Units of Length
		Kilometre Conversions
4M1f choose appropriate metric units to measure length, weight/mass and capacity ❖	Measurement	Measuring Length
		How Heavy?
<b>Using Measuring Skills: Time</b>		
4M2a tell the time to the nearest minute on analogue clocks		
4M2b read hours and minutes on a 24-hour digital clock		
4M2c time and order events in seconds		
4M2d use calendars to plan events		
4M2e calculate start times, finish times and durations using 5-minute intervals ❖		
4M2f convert between 12- and 24-hour clock times ❖		

Year 4

Expectation	Topic	Activity
Using Measuring Skills: Time (Continued)		
4M2g estimate the number of minutes everyday activities take to complete ❖		
Using Measuring Skills: Temperature		
4M3 take temperature readings using thermometers and interpret readings above and below 0°C		
Using Measuring Skills: Area and volume, Angle and position		
4M4a recognise volume in practical contexts	Space	Comparing Volume
4M4b use a protractor to check if an angle is more or less than a right angle ❖	Space	Equal Angles
		What Type of Angle?
		Measuring Angles
4M4c use eight compass points to describe direction	Space	What Direction was That?
Using Geometry Skills: Shape		
4G1a recognise, classify and sketch polygons with up to eight sides, including irregular shapes ❖	Shape	Collect More Shapes
		Collect Polygons
4G1b recognise and classify 3D shapes, using their own criteria ❖	Shape	Faces, Edges and Vertices
Using Geometry Skills: Construction		
4G2a draw lines to the nearest millimetre ❖		
4G2b recognise and draw perpendicular and parallel lines ❖		
Using Geometry Skills: Movement		
4G3a draw lines of symmetry ❖		
4G3b draw the reflection of a shape in a horizontal or vertical line ❖		
Using Algebra Skills: Number Sequences		
4A1a explore sequences of positive whole numbers involving addition and subtraction in 2s, 3s, 4s, 5s, 6s, 8s and 10s from different starting points ❖	Patterns and Relationships	Pick the Next Number
		Describing Patterns
		Count Forward Patterns
		Count Backward Patterns
4A1b write the next two (or more) terms in sequences that involve addition or subtraction ❖	Patterns and Relationships	Pick the Next Number
		Describing Patterns
		Count Forward Patterns
		Count Backward Patterns



Year 4

Expectation	Topic	Activity
<b>Using Algebra Skills: Functions and graphs</b>		
4A3 use one and two step function machines to generate input and output using all four operations; express, in words, the operations of function machines ❖		
<b>Using Algebra Skills: Equations and inequalities</b>		
4A4a use $<$ $>$ to describe whether a number is less than or greater than another ❖	Number and Place Value to 1000	Compare Numbers to 100
4A4b find an 'unknown' in two step equations, e.g. $4x + 1 = 25$ ❖		
<b>Using Data Skills: Collect and record data, Present and analyse data, Interpret data</b>		
4D1a represent data using: – lists, tally charts, tables and diagrams – bar charts and bar line graphs labelled in 2s, 5s and 10s – pictograms where one symbol represents more than one unit using a key – Venn and Carroll diagrams		
4D1b extract and interpret information from charts, timetables, diagrams and graphs.	Data	Bar Graphs 1 Line Graphs: Interpretation Carroll Diagram Venn Diagram 1

## Year 5

Expectation	Topic	Activity
<b>Developing Number Reasoning: Identifying processes and connections</b>		
5R1a transfer mathematical skills to a variety of contexts and everyday situations	Add and Subtract - Mental	Estimate Sums Estimate Differences Split Add and Subtract Bump Add and Subtract Pyramid Puzzles 2
5R1b identify the appropriate steps and information needed to complete the task or reach a solution	Add and Subtract - Mental	Estimate Sums Estimate Differences Split Add and Subtract Bump Add and Subtract Pyramid Puzzles 2
5R1c select appropriate mathematics and techniques to use	Add and Subtract - Mental	Estimate Sums Estimate Differences Split Add and Subtract Bump Add and Subtract Pyramid Puzzles 2
5R1d select and use suitable instruments and units of measurement	Measurement	Measuring Length Measure to the Nearest Half Centimetre
5R1e choose an appropriate mental or written strategy and know when it is appropriate to use a calculator	Add and Subtract - Mental	Estimate Sums Estimate Differences Split Add and Subtract Bump Add and Subtract Pyramid Puzzles 2
5R1f estimate and visualise size when measuring and use the correct units	Measurement	Measuring Length Measure to the Nearest Half Centimetre
<b>Developing Number Reasoning: Represent and Communicate</b>		
5R2a explain results and procedures clearly using mathematical language		

Expectation	Topic	Activity
<b>Developing Number Reasoning: Represent and Communicate (Continued)</b>		
5R2b refine informal methods of recording written calculations, moving to formal methods of calculation when developmentally ready	Add and Subtract - Mental	Problems: Add and Subtract
		Fact Families: Add and Subtract
		Complements to 10, 20 and 50
		Complements to 50 and 100
		Related Facts 1
		Estimate Sums
		Estimate Differences
		Find the Missing Number 1
		Pyramid Puzzles 1
	Add and Subtract - Written	Strategies for Column Addition
		Subtract Numbers: Regroup
		Add Numbers: Regroup a Ten
		Add Two 2-Digit Numbers
		2-Digit Differences
		2-Digit Differences: Regroup
		Add Three 2-Digit Numbers
	Add Three 2-Digit Numbers: Regroup	
	Multiply and Divide - Written	Multiply: 2-Digit by 1-Digit
		Multiply: 1-Digit Number
		Multiply: 1-Digit Number, Regroup
		Mental Methods Multiplication
Divide: 1-Digit Divisor 1		
Mental Methods Division		
Grid Methods 1		
Related Facts 2		
5R2c use appropriate notation, symbols and units of measurement		
5R2d select and construct appropriate charts, diagrams and graphs with suitable scales		
5R2e recognise, and generalise in words, patterns that arise in numerical, spatial or practical situations ❖	Patterns and Relationships	Describing Patterns
		Count Forward Patterns
		Count Backward Patterns
		Pick the Next Number

Year 5

Expectation	Topic	Activity	
<b>Developing Number Reasoning: Identifying processes and connections (Continued)</b>			
5R2f visualise and describe shapes, movements and transformations ❖	Shapes	Symmetry or Not?	
		Sides, Angles and Diagonals	
		Collect More Shapes	
		Faces, Edges and Vertices	
		Collect the Polygons	
		Triangle Tasters	
	Space	What Direction was That?	
		Equal Angles	
		What Type of Angle?	
		Measuring Angles	
		Map Coordinates	
		Scale	
	<b>Developing Number Reasoning: Review</b>		
	5R3a select from an increasing range of checking strategies to decide if answers are reasonable	Add and Subtract - Mental	Estimate Sums
Estimate Differences			
5R3b interpret answers within the context of the problem and consider whether answers, including calculator, analogue and digital displays, are sensible	Add and Subtract - Mental	Problems: Add and Subtract	
		Fact Families: Add and Subtract	
		Complements to 10, 20 and 50	
		Complements to 50 and 100	
		Related Facts 1	
		Estimate Sums	
		Estimate Differences	
		Find the Missing Number 1	
		Pyramid Puzzles 1	
5R3c draw conclusions from data and recognise that some conclusions may be misleading or uncertain	Data	Divided Bar Graphs	
		Pie Charts	
		Tallies	
		Reading Values from a Line	
		Data Extremes Range	
		Missing Values	
		Table of Values	

Expectation	Topic	Activity
Using Number Skills: Use number facts and relationships		
5N1a read and write numbers to 100 000	Whole Numbers	Numbers in Words
5N1b compare numbers with 1 and 2 decimal places	Decimal Numbers	Comparing Decimals
		Decimal Order
		Decimals on the Number Line
5N1c use mental strategies to recall multiplication tables for 2, 3, 4, 5, 6, 8 and 10 and use to solve division problems	Multiply and Divide - Facts	Groups of Eight
		Dividing Eights
		Multiplication Facts
		Division Facts
5N1d multiply and divide numbers and decimals by 10 and 100	Multiply and Divide - Facts	Related Facts 2
		Place Value 1 ( $\times 10$ and $\div 10$ )
5N1e identify multiples of 2, 3, 4, 5, 6, 8 and 10; use the terms multiple and factor ❖	Multiply and Divide - Facts	Groups of Eight
		Dividing Eights
		Multiplication Facts
		Division Facts
5N1f identify prime numbers as having only two factors; recognise that 1 is not a prime number ❖		Factors
5N1g identify prime numbers below 10 ❖		
Using Number Skills: Fractions, decimals, percentages and ratio		
5N2a use understanding of simple fraction and decimal equivalences when measuring and calculating, e.g. $\frac{1}{2} = 0.5$ , $\frac{1}{10} = 0.1$	Fractions and Decimals	Fractions to Decimals
5N2b calculate fractional quantities, e.g. $\frac{1}{8}$ of 24 = 3, so $\frac{5}{8}$ of 24 = 15 use doubling and halving strategies when working with simple proportions	Fractions and Decimals	Fraction of an Amount
		Fraction Fruit Sets 2
		Fraction Word Problems
5N2c share objects in a given ratio, e.g. red blocks and blue blocks in a ratio of 1:2 ❖		
5N2d recognise connections between fractions, e.g. one-tenth is half of one-fifth ❖	Fractions and Decimals	Equivalent Fractions
		Equivalent Fractions on a Number Line
		Simplifying Fractions



Year 5

Expectation	Topic	Activity
<b>Using Number Skills: Use number facts and relationships (Continued)</b>		
5N2e add and subtract fractions with the same denominator ❖	Fractions and Decimals	Add: Common Denominator
		Subtract: Common Denominator
5N2f add fractions with the same denominator to make a whole ❖	Fractions and Decimals	One Take Fraction
<b>Using Number Skills: Calculate using mental and written methods</b>		
5N3a find differences between numbers with 1 decimal place		
5N3b add and subtract 3-digit numbers using an appropriate mental or written method	Add and Subtract - Written	Add 3-Digit Numbers
		Add Three 3-Digit Numbers: Regroup
		3-Digit Difference
		3-Digit Differences with Zeros
		3-Digit Differences: 2 Regroupings
		Adding Colossal Columns (UK)
5N3c multiply and divide 3-digit numbers by a single-digit number	Multiply and Divide - Written	Multiply: 1-Digit Number
		Grid Methods 1
5N3d order negative and positive numbers, including decimals to 1 decimal place ❖	Whole Numbers	Ascending Order
		Descending Order
	Decimal Numbers	Decimal Order
		Decimals on the Number Line
	Patterns and Relationships	Pick the Next Number
		Increasing Patterns
	Decreasing Patterns	
<b>Using Number Skills: Estimate and check</b>		
5N4a check answers using inverse operations	Patterns and Relationships	Missing Values
		Magic Symbols 1
	Add and Subtract - Mental	Estimate Sums
		Estimate Differences

Year 5

Expectation	Topic	Activity
<b>Using Number Skills: Manage money</b>		
5N5a order and compare the cost of items up to £1 000		
5N5b add and subtract totals less than £100 using correct notation, e.g. £28.18 + £33.45	Measurement	Money - Adding (GBP)
5N5c plan and track money and savings by keeping accurate records		
5N5d realise that budgeting is important		
<b>Using Measuring Skills: Length, weight/mass, capacity</b>		
5M1a measure and calculate perimeters	Measurement	Perimeter: Squares and Rectangles 1 Perimeter: Triangles
5M1b make estimates of length, weight/mass and capacity based on knowledge of the size of real-life objects ❖		
5M1c use measuring instruments with 10 equal divisions between each major unit, and record using decimal notation, e.g. 4.2cm, 1.3kg	Measurement	Grams and Kilograms 1 Converting Units of Length
5M1d make use of conversions, e.g. $\frac{1}{4}$ of a km = 250m	Measurement	Grams and Kilograms 1 Converting Units of Length
5M1e recognise the appropriateness of units in different contexts ❖		
<b>Using Measuring Skills: Time</b>		
5M2a read and use analogue and digital clocks	Measurement	24 Hour Time
5M2b time events in minutes and seconds, and order the results		
5M2c calculate start times, finish times and durations using hours and minutes ❖	Measurement	Elapsed Time
5M2d carry out practical activities involving timed events and explain which unit of time is the most appropriate		
5M2e estimate the length of time everyday activities take to complete, extending to hours and quarters of hours ❖		

Year 5

Expectation	Topic	Activity
<b>Using Measuring Skills: Temperature</b>		
5M3a measure and record temperatures involving positive and negative readings		
5M3b calculate temperature differences, including those involving temperature rise and fall across 0°C		
<b>Using Measuring Skills: Area and volume, Angle and position</b>		
5M4a calculate, estimate and compare the area of squares and rectangles using standard units		
5M4b find volumes by counting and other practical methods		
5M4c recognise acute and obtuse angles ❖	Shape	Triangles: Acute, Right, Obtuse
		Classifying Angles
		Measuring Angles
5M4d draw and measure acute angles in multiples of 10 degrees ❖		
5M4e use coordinates to specify location		
<b>Using Geometry Skills: Shape</b>		
5G1a recognise and classify triangles, using their own criteria ❖	Shape	Triangles: Acute, Right, Obtuse
5G1b identify congruent shapes and justify whether two or more shapes are congruent ❖		
<b>Using Geometry Skills: Construction</b>		
5G2a draw and label lines accurately, e.g. AB ❖		
5G2b draw squares, rectangles and right angled triangles accurately ❖		
5G2c construct solids from given nets ❖	Shape	Nets
<b>Using Geometry Skills: Movement</b>		
5G3a draw the reflection of a shape in any line ❖	Shape	Symmetry or Not?
5G3b complete a partly drawn shape after rotation ❖	Shape	Transformations
5G3c translate a shape on squared paper horizontally or vertically ❖		

Expectation	Topic	Activity
<b>Using Algebra Skills: Number Sequences</b>		
5A1a recognise and state the difference in sequences that involve adding or subtracting ❖	Patterns and Relationships	Pick the Next Number
		Describing Patterns
		Increasing Patterns
		Decreasing Patterns
5A1b write the next two (or more) terms in sequences ❖	Patterns and Relationships	Pick the Next Number
		Describing Patterns
		Increasing Patterns
		Decreasing Patterns
5A1c show that a number is in the sequence and/or find the position number by continuing the sequence or otherwise ❖	Patterns and Relationships	Pick the Next Number
		Describing Patterns
		Increasing Patterns
		Decreasing Patterns
<b>Using Algebra Skills: Functions and graphs</b>		
5A3a use multistep function machines to generate input and output using all four operations; express, in words, the operations of function machines ❖		
5A3b read, plot and write coordinates in one quadrant, e.g. (2, 4) ❖	Space	Coordinate Meeting Place
		Using a Key
		Coordinate Graphs: 1st Quadrant
<b>Using Data Skills: Collect and record data, Present and analyse data, Interpret data</b>		
5D1a represent data using: – lists, tally charts, tables, diagrams and frequency tables – bar charts, grouped data charts, line graphs and conversion graphs	Data	Divided Bar Graphs
		Pie Charts
		Using Timetables
		Tallies
		Reading Values from a Line
		Data Extremes and Range
5D1b extract and interpret information from an increasing range of diagrams, timetables and graphs (including pie charts)	Data	Divided Bar Graphs
		Pie Charts
		Using Timetables
		Tallies
		Reading Values from a Line
		Data Extremes and Range
5D1c use mean, median, mode and range to describe a data set	Data	Mean
		Median
		Mode

Year 5

Expectation	Topic	Activity
Using Data Skills: Probability		
5D2a use the words 'certain' and 'impossible' to describe the likelihood of an event occurring ❖	Probability	Missing Values Table of Values Fair Games What are the Chances?
5D2b recognise that some events are impossible and some events are certain ❖	Probability	Missing Values Table of Values Fair Games What are the Chances?
5D2c recognise that some events are more likely than others ❖	Probability	Missing Values Table of Values Fair Games What are the Chances?
5D2d use the words 'likely', 'unlikely' and 'even chance' ❖	Probability	Missing Values Table of Values Fair Games What are the Chances?



Expectation	Topic	Activity
<b>Developing Number Reasoning: Identifying processes and connections</b>		
6R1a transfer mathematical skills to a variety of contexts and everyday situations	Add and Subtract	Pyramid Puzzles 2
	Patterns and Relationships	I am Thinking of a Number!
		Table of Values
		Pattern Rules and Tables
		Magic Symbols 2
		Missing Numbers: Variables
Multiplication Turnarounds		
6R1b identify the appropriate steps and information needed to complete the task or reach a solution	Add and Subtract	Pyramid Puzzles 2
	Patterns and Relationships	I am Thinking of a Number!
		Table of Values
		Pattern Rules and Tables
		Magic Symbols 2
		Missing Numbers: Variables
Multiplication Turnarounds		
6R1c select appropriate mathematics and techniques to use	Add and Subtract	Pyramid Puzzles 2
	Patterns and Relationships	I am Thinking of a Number!
		Table of Values
		Pattern Rules and Tables
		Magic Symbols 2
		Missing Numbers: Variables
Multiplication Turnarounds		
6R1d select and use suitable instruments and units of measurement	Measurement	Inches, Feet, Yards
6R1e choose an appropriate mental or written strategy and know when it is appropriate to use a calculator	Add and Subtract	Adding Colossal Columns
		Subtracting Colossal Columns
		Add Decimals 1
		Magic Symbols 2
		Missing Numbers: Variables
		Estimate Decimal Sums 2
		Estimate Decimal Differences 2
Pyramid Puzzles 2		
6R1f estimate and visualise size when measuring and use the correct units		

Expectation	Topic	Activity
Developing Number Reasoning: Represent and communicate		
6R2a explain results and procedures clearly using mathematical language		
6R2b refine informal methods of recording written calculations, moving to formal methods of calculation when developmentally ready	Add and Subtract	Adding Colossal Columns
		Subtracting Colossal Columns
		Add Decimals 1
		Magic Symbols 2
		Missing Numbers: Variables
		Estimate Decimal Sums 2
		Estimate Decimal Differences 2
	Multiply and Divide - Facts	Pyramid Puzzles 2
		Groups of Seven
		Groups of Nine
		Times Tables
		Dividing Sevens
		Dividing Nines
		Divisibility Tests (3, 4, 9)
		Factores
		Prime Factoring
		Multiply and Divide
	Remainders by Tables	
	Long Multiplication	
	Prime or Composite?	
Grid Methods 2		
Multiply: 2-Digit Number, Regroup		
Divide: 2-Digit Divisor, Remainder		
Multiplication Turnarounds		
Rounding Numbers for Division		
Estimate Quotients		
6R2c use appropriate notation, symbols and units of measurement		
5R2d select and construct appropriate charts, diagrams and graphs with suitable scales		

Expectation	Topic	Activity
<b>Developing Number Reasoning: Represent and communicate (Continued)</b>		
6R2e recognise, and generalise in words, patterns that arise in numerical, spatial or practical situations ❖	Patterns and Relationships	Increasing Patterns
		Decreasing Patterns
		I am Thinking of a Number!
6R2f visualise and describe shapes, movements and transformations ❖	Shapes	Shapes
		Properties of Solids
		Nets
		Measuring Angles
<b>Using Number Skills: Use number facts and relationships</b>		
6N1a read and write numbers to 1 million and numbers to 3 decimal places	Whole Numbers	Place Value to Millions
		Comparing Integers
		Number Sequences up to 1 Million
	Decimal Numbers	Numbers from Words to Digits 3
		Decimals from Words to Digits 2
6N1b use mental strategies to recall multiplication tables up to $10 \times 10$ and use to solve division problems	Multiply and Divide - Facts	Decimal Place Value
		Groups of Seven
		Groups of Nine
		Times Tables
		Dividing Sevens
		Dividing Nines
	Multiply and Divide	Divisibility Test (3, 4, 9)
		Multiplication Turnarounds
		Problems: Multiply and Divide
6N1c multiply numbers and decimals by a multiple of 10, e.g. $15 \times 30$ , $1.4\text{cm} \times 20$	Multiply and Divide - Facts	Place Value 1 ( $\times 10$ and $\div 10$ )
6N1d identify multiples of numbers up to 10; use the terms multiple and factor ❖	Multiply and Divide - Facts	Multiples
		Factors
		Prime Factoring
6N1e identify common multiples of two numbers ❖	Multiply and Divide - Facts	Multiples
6N1f identify common factors of two numbers ❖	Multiply and Divide - Facts	Factors
6N1g identify prime numbers ❖		
6N1h know prime numbers below 20 ❖		

Expectation	Topic	Activity
<b>Using Number Skills: Fractions, decimals, percentages and ratio</b>		
6N2a use understanding of simple fraction, decimal and percentage equivalences, e.g. find 25% of 60cm and know that this is equivalent to $\frac{1}{4}$ of 60cm	Fractions and Decimals	Fractions to Decimals
		Comparing Fractions 1
		Comparing Fractions 1b
		Decimals to Fractions 1
	Percentages	Percent of a Number
		Percentage to Fraction
		Decimal to Percentage
6N2b calculate percentage quantities based on 10%, e.g. 20%, 5%, 15%	Percentages	Percents to Decimals
6N2c use simple ratio and proportion		Percent of a Number
6N2d use ratio to express two or more quantities in words ❖		
6N2e state the proportion of a whole that each share represents, e.g. recognise that in a ratio of 1:3, 1 part represents a quarter of the total ❖		
6N2f find equivalent fractions and use these to add and subtract fractions ❖	Fractions and Decimals	Equivalent Fractions
6N2g simplify fractions ❖	Fractions and Decimals	Equivalent Fraction Wall 2
		Simplifying Fractions
		Mixed to Improper
<b>Using Number Skills: Calculate using mental and written methods</b>		
6N3a add and subtract numbers using whole numbers and decimals	Add and Subtract	Adding Colossal Columns
		Subtracting Colossal Columns
		Add Decimals 1
		Magic Symbols 2
		Missing Numbers: Variables
		Estimate Decimal Sums 2
		Estimate Decimal Differences 2
		Pyramid Puzzles 2
6N3b multiply 2- and 3-digit numbers by a 2-digit number	Multiply and Divide	Problems: Multiply and Divide
		Long Multiplication
		Grid Methods 2
		Multiply: 2-Digit Number, Regroup
6N3c divide 3-digit numbers by a 2-digit number	Multiply and Divide	Divide: 2-Digit Divisor, Remainder

Expectation	Topic	Activity
Using Number Skills: Calculate using mental and written methods (Continued)		
6N3d add or subtract across zero using a number line, e.g. $-3 + 5$ , $4 - 6$ ❖	Add and Subtract	Magic Symbols 2
Using Number Skills: Estimate and check		
6N4a check answers using inverse operations	Add and Subtract	Magic Symbols 2
		Missing Numbers: Variables
		Estimate Decimal Sums 2
		Estimate Decimal Differences 2
6N4b estimate by rounding to the nearest 10, 100, 1 000 or whole number	Add and Subtract	Pyramid Puzzles 2
		Estimate Sums
		Estimate Differences
	Whole Numbers	Estimate Decimal Sums 2
		Estimate Decimal Differences 2
Decimal Numbers	Rounding Numbers	
		Rounding Decimals
Using Number Skills: Manage money		
6N5a use the terms profit and loss in buying and selling activities and make calculations for this		
6N5b understand the advantages and disadvantages of using bank accounts		
6N5c make comparisons between prices and understand which is best value for money	Measurement	Best Buy
Using Measuring Skills: Length, weight/mass, capacity		
6M1a read and interpret scales or divisions on a range of measuring instruments		
6M1b make estimates of length, weight/mass and capacity based on knowledge of the size of real-life objects, recognising the appropriateness of units in different contexts ❖		



Expectation	Topic	Activity
<b>Using Measuring Skills: Length, weight/mass, capacity</b>		
6M1c record measurements in different ways, e.g. 1.3kg = 1kg 300g	Measurement	Kilogram Conversions
		Mililitres and Litres
		Convertin cm and mm
		Inches, Feet, Yards
6M1d use the language of imperial units in daily use, e.g. miles, pints	Measurement	Inches, Feet, Yards
<b>Using Measuring Skills: Time</b>		
6M2a use and interpret timetables and schedules to plan events and activities and make calculations as part of the planning process	Measurement	Using Timetables
		Time Mentals
6M2b estimate how long a journey takes		
6M2c time events in minutes and seconds to the nearest tenth of a second		
6M2d convert between standard units of time ❖		
6M2e estimate the length of time everyday activities take to complete with increasing accuracy ❖		
<b>Using Measuring Skills: Temperature</b>		
6M3a measure and record temperatures involving positive and negative readings		
6M3b calculate temperature differences, including those involving temperature rise and fall across 0°C		
<b>Using Measuring Skills: Area and volume, Angle and position</b>		
6M4a calculate the area of squares and rectangles	Space	Area: Squares and Rectangles 2
6M4b recognise reflex angles ❖	Shape	Angles in a Revolution
		Measuring Angles
6M4c draw accurately and measure acute and obtuse angles in multiples of 5 degrees ❖		
6M4d calculate a missing angle within a right angle, on a s	Shape	Angle Measures in a Triangle
		Measuring Angles

Year 6

Expectation	Topic	Activity
<b>Using Measuring Skills:</b>		
6M4e use grid references to specify location	Space	Coordinate Graphs: 1st Quadrant
<b>Using Geometry Skills: Shape</b>		
6G1a recognise tetrahedra and square based pyramids ❖		
6G1b recognise and sketch different types of quadrilaterals ❖		
6G1c explore the tessellation of different shapes ❖		
6G1d identify a net of a cube ❖	Shape	Nets
<b>Using Geometry Skills: Construction</b>		
6G2a draw cubes and cuboids on isometric paper		
6G2b draw nets of cubes on square paper		
<b>Using Geometry Skills: Movement</b>		
6G3a find all the lines of symmetry for a given shape ❖		
6G3b identify rotational symmetry of shapes ❖	Shape	Rotational Symmetry of Shapes
6G3c identify symmetrical properties of regular polygons ❖	Shape	Symmetry or Not?
<b>Using Algebra Skills: Number Sequences</b>		
6A1a find the term to term rule for ascending and descending sequences, e.g. 3, 7, 11, 15 add 4 ❖	Patterns and Relationships	Increasing Patterns
		Decreasing Patterns
		Pattern Rules and Tables
6A1b generate a sequence given the first term and the term to term rule ❖		
6A1c consider spatial patterns, e.g. square numbers ❖		
<b>Using Algebra Skills: Expressions and formulae</b>		
explore general statements through practical activities, e.g. that $a + a + a = 3a$ , $3 \times a = 3a$ and $a + a + a + b + b = 3a + 2b$ ❖		

Year 6

Expectation	Topic	Activity
Using Algebra Skills: Expressions and formulae (Continued)		
6A2b simplify expressions involving the addition of one variable, e.g. $5t + 3t = 8t$ ❖		
Using Algebra Skills: Functions and graphs		
6A3a express output generated from one step function machines using algebra ❖		
6A3b identify the coordinates of a missing point from a regular shape ❖		
6A3c refer to the x axis and the y axis ❖		
Using Algebra Skills: Equalities and inequalities		
6A4a construct and solve one step equations with whole number solutions ❖		
6A4b list numbers between two points using the terminology 'less than or equal to' and 'greater than or equal to' ❖		