Big Maths

Year 6

Termly Learning Objectives

Counting

Learn Its

It's Nothing New

Calculation

Shape

Amounts

Fractions

Explaining Data

Basic Skills

Progress Drive	Step	Statement	✓
Mastery of Numbers	10	I can understand numbers with different decimal places	
Counting Along Scales	7	I can find the gap between a negative number and a positive number	
Addition	39	I can solve additions with several numbers	
	40	I can solve 2dp + 1dp	
	41	I can solve any 2dp + 1dp	
Subtraction	37	I can subtract numbers with different decimal places	
Multiplication	17	I can solve 1d x 1d.1dp	
	18	I can solve 1d x 1d.2dp	
Division	32	I can use a Tables Fact to find a decimal division fact	
	33	I can combine 2 or more Tables Facts to solve decimal division	
Addition - Column Methods	11	I can add numbers with 1dp	
	12	I can add numbers with 2dp	
	13	I can add numbers with 3dp	
	14	I can add numbers with mixed amounts of decimal places	
Subtraction - Column Methods	9	I can subtract numbers with 1dp	
	10	I can subtract numbers with 2dp	
	11	I can subtract numbers with 3dp	
	12	I can subtract numbers with mixed amounts of decimal places	
Multiplication - Column Methods	7	I can solve any 4d x 2d	
	8	I can solve any 1d.1dp x 1d	
	9	I can solve any 1d.2dp x 1d	
	10	I can solve any 1d.1dp x 2d	
	11	I can solve any 1d.2dp x 2d	

Basic Skills (Continued)

Progress Drive	Step	Statement	✓
Division - Column Methods	8	I can solve any 3d ÷ 2d	
	9	I can solve any 4d ÷ 2d and show the remainder as a fraction	
	10	I can solve division with decimal places in the answer	

Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	25	I can use a pair of compasses to draw a circle	
	26	I can draw a circle with a given radius	
	27	I can draw a circle with a given diameter	
2D Shapes	26	I know the relationships between radius, diameter and circumference in a circle	
3D Shapes	24	I can tell if a net makes a shape	
Position and Direction	29	I can reflect and translate shapes	
Amounts of Distance	29	I can convert kilometres and metres in both directions and to 3dp, and use in context	
	30	I can identify and measure the diameter of a circle	
	31	I can identify and measure the radius of a circle	
	32	I know what a circumference is and how it relates to diameter	
	33	I can find the circumference by knowing the radius or diameter	
Amounts of Mass	19	I can convert kilograms and grams in both directions and to 3dp, and use in context	
Amounts of Money	17	I can manage a simple budget	
Amounts of Space	27	I can convert litres and millilitres in both directions and to 3dp, and use in context	
Amounts of Temperature	14	I can find temperature differences between a positive and a negative number	
Amounts of Time	31	I can convert times and then calculate time gaps	
Amounts of Turn	31	I can measure the three angles of a selection of triangles, and explore the sum	
	32	I know 180° = sum of interior angles in every triangle (and can therefore find missing angles)	
	33	I know 360° = sum of interior angles in every quadrilateral and every circle (and can therefore find missing angles)	
Fractions of a Whole	17	I can show a variety of equivalent fractions	

Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Fractions of a Set	14	I can tell you the total if I know the value of a fraction	
Fractions: Calculation	18	I can use common factors to simplify	
	19	I can find a new common denominator	
	20	I can multiply one fraction by another	
Percentages	4	I can write my Full Coin Card from only knowing 100 lots	
	5	I can find percentages of convenient numbers	
	6	I can find percentages of convenient numbers and use them to compare proportions	
Ratio	9	I can find the scale factor when comparing two corresponding amounts	
	10	I can use ratio notation to record my findings	
	11	I can maintain a ratio through differing totals	
Diagrams and Tables	25	I can read, use and calculate with a wide range of tables and timetables	
Bar Charts	11	I can draw a bar chart with continuous data	
Averages	1	I can tell you the lowest value from a set of data	
	2	I can tell you the highest value from a set of data	
	3	I can tell you the difference between the highest value and the lowest value	
	4	I can tell you the difference between the highest value and the lowest value	
	5	I know when and why a range is useful to explain data	
	6	I can find the mean value for a set of data	
	7	I know when and why the mean is useful to explain data	
Line Graphs	7	I can use line graphs to show relationships between two variables in other subjects	
	8	I can use a line graph to find missing values	

Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Pie Charts	1	I can explain simple pie charts using my knowledge of fractions of a circle	
	2	I can find missing values, percentages or proportions	
	3	I can use missing percentages or proportions to provide missing values	
	4	I can find missing angles, given the proportional value and the total value	
	5	I can find missing proportional values given the angle and the total value	
Probability	7	I can show an even chance using numbers	
Pattern Spotting	17	I can spot patterns where the gap is a fraction	
Algebra	15	I can use algebra to show multiplication as repeated addition	
	16	I can use Pim to simplify expressions	
Prove It!	5	I can Prove It! - 5	

Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	28	I can accurately draw a wide range of 2D shapes	
2D Shapes	27	I can combine all of my 2D shape knowledge and understanding to solve challenges	
3D Shapes	25	I can accurately draw nets for cubes	
	26	I can accurately draw the nets for a range of familiar 3D shapes	
	27	I can compare and classify a wide range of 3D shapes using mathematical detail	
Position and Direction	30	I can plot points in the second quadrant	
	31	I can plot points in the third and fourth quadrant	
	32	I can plot shapes that overlap into different quadrants	
	33	I can reflect shapes in the y axis	
	34	I can reflect shapes in the x axis	
	35	I can find missing coordinates for a variety of shapes (by drawing the shape to help)	
	36	I can find missing coordinates for a variety of shapes (without drawing the shape)	
Amounts of Distance	34	I can find distances from a given speed and a range of times	
	35	I can find time from a given speed and a range of distances	
Amounts of Mass	20	I can draw and interpret a conversion graph to change from a metric measure to an imperial measure, e.g. pounds and kilograms	
Amounts of Money	18	I can calculate profit and loss	
	19	I can find 'best value for money'	

Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Amounts of Space	28	I can calculate volume using CLIC	
	29	I can find different shapes (different perimeters) with the same area	
	30	I can use a formula to find the area of triangles: 1/2(h x b)	
	31	I can use a formula to find the area of parallelograms: h x b	
	32	I can derive and apply the formula for the area of a trapezium	
Amounts of Temperature	15	I can increase a temperature by a given amount (including through zero)	
	16	I can decrease a temperature by a given amount (including through zero)	
Amounts of Time	32	I understand a decade, century, BC/AD, 52 weeks in a year	
Amounts of Turn	34	I can use all of my angle knowledge to find missing angles in lots of different contexts	
	35	I can find missing angles using multi-steps of deduction	
Fractions of a Whole	18	I can find a given fraction of a shape that is predivided into unequal pieces	
	19	I can find the fraction of a shape that is shaded (and unshaded) when given the ratio of shaded : unshaded	
Fractions: Calculation	21	I can convert, simplify and find equivalent fractions ready for ordering... and order them	
	22	I can convert, simplify and find equivalent fractions ready for calculating... and calculate with them	
	23	I can divide proper fractions by whole numbers	
	24	I can turn fractions into decimals (not recurring)	
	25	I can turn fractions into decimals (recurring)	

Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Percentages	7	I can write out my Pie Chart Coin Card	
	8	I can find percentages of any number	
	9	I can find any percentage of any number using a calculator	
	10	I can find 100% if given a convenient percentage	
	11	I can find a new value if given a percentage increase	
	12	I can find a new value if given a percentage decrease	
	13	I can use percentage to compare best value	
Ratio	12	I can use my Coin Card for a variety of conversions	
	13	I can use my Coin Card for conversion, and graph the relationship	
Diagrams and Tables	25	I can read, use and calculate with a wide range of tables and timetables	
Bar Charts	12	I can find how many between two given values shown on the horizontal axis (with continuous data)	
Averages	8	I can find the mode value for a set of data	
	9	I know when and why the mode is useful to explain data	
	10	I can find the median value for a set of data	
	11	I know when and why the median is useful to explain data	
	12	I can compare two sets of data and explain the features of each	
Line Graphs	8	I can use a line graph to find missing values	

Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Pie Charts	6	I can write out my Pie Chart Coin Card	
	7	I can use my Pie Chart Coin Card to find angles from percentages	
	8	I can use my Pie Chart Coin Card to find percentages from angles	
	9	I can convert proportions to percentages, and then to angles	
	10	I can find missing angles, given the proportional value and the total value... and draw the pie chart!	
	11	I can use my Pie Chart Coin Card to find angles from percentages... and draw the pie chart!	
Probability	8	I can use numbers to describe the likelihood of an event	
	9	I can show probabilities as fractions and explain what this means	
	10	I can say which probability is most likely by comparing fractions with the same denominator	
	11	I can say which probability is most likely by comparing fractions with different denominators	
	12	I can show probabilities as a decimal number between zero and one	
	13	I can show probabilities by converting to percentages	
	14	I can show relative probabilities by converting to percentages	
	15	I can show relative probabilities by converting to percentages (and then angles) and representing these with a pie chart	
Pattern Spotting	18	I can spot patterns where the gap itself is increasing by 1	
	19	I can spot patterns where the gap itself is increasing or decreasing by a fixed amount	
	20	I can spot patterns where the gap itself is increasing or decreasing by a non-fixed amount	

Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Algebra	17	I can express functions using algebraic statements	
	18	I can use my understanding of the order of operations to carry out calculations	
	19	I can solve one step equations	
	20	I can find two unknown numbers in an algebraic equation	
	21	I can find more than one pair of numbers to satisfy an equation	
	22	I can use formulae and algebraic expressions in many areas of my maths and science	
Prove It!	6	I can Prove It! - 6	