



# Big Maths

## Year 5

# Termly Learning Objectives



Counting



Learn Its



It's Nothing New



Calculation



Shape



Amounts



Fractions



Explaining Data

## Basic Skills

Progress Drive	Step	Statement	✓
Reading Numbers	7	I can read 6d numbers	
	8	I can read 5d numbers	
	9	I can read 4d numbers	
Place Value	4	I can partition a 2dp number	
Mastery of Numbers	7	I can understand 2dp numbers	
Count Along in 4 Ways	-1s	-1s	
Counting Along Scales	4	I can even count along when there are no lines	
INN: Addition and Subtraction	5	I can add hundredths	
INN: Number Bonds to 10	5	I can find the missing decimal piece	
Multiplying by 10	3	I can multiply decimals by 10	
Dividing by 10	3	I can divide decimals by 10	
INN: Multiplication	4	I can do Smile Multiplication for tenths	
Coin Multiplication	4	I know when to add 2 multiples together	
INN: Finding Multiples	4	I can find Mully using Smile Multiplication and Tables Facts	
Multiple-Factor-Prime	2	I can find factors	
Addition	32	I can solve 1dp + 1dp	
	33	I can solve any 1dp + 1dp	
Subtraction	31	I can solve 4d - 2d	
Multiplication	14	I can solve any 1d x 2d	
Division	24	I can use a Smile Multiplication fact to find a division fact	
	25	I can use a Smile Multiplication fact to find a division fact (with remainders)	
Addition - Column Methods	8	I can solve any 4d + 4d	
Subtraction - Column Methods	7	I can solve any 4d - 4d	

**Basic Skills (Continued)**

Progress Drive	Step	Statement	✓
Multiplication - Column Methods	4	I can solve any $2d \times 2d$	
Division - Column Methods	5	I can solve a $4d \div 1d$ (using any table) with no remainders in the answer	

## Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	23	I can mark parallel lines accurately	
	24	I can recognise and draw diagonal lines	
2D Shapes	23	I can sort polygons by side number and identify specific triangles and quadrilaterals	
3D Shapes	19	I can make 3D shapes	
Position and Direction	25	I can move a point horizontally and vertically	
Amounts of Distance	25	I can find the perimeter of compound shapes	
	26	I can use the total perimeter to find missing side lengths	
Amounts of Mass	16	I can convert kilograms to grams	
Amounts of Money	15	I can use decimal notation for money	
Amounts of Space	20	I can convert litres to millilitres	
Amounts of Temperature	11	I can understand and use degrees Celsius	
Amounts of Time	27	I can calculate time gaps across several hours (5 min)	
Amounts of Time: Telling the Time	18	I can recognise years written in Roman numerals	
Amounts of Turn	17	I can recognise reflex angles	
	18	I know that we need a unit of measure to describe the amount of turn... and that we use degrees!	
	19	I know my right angle Learn Its: $90^\circ = 1$ right angle, $180^\circ =$ half turn, $270^\circ =$ three quarter turn and $360^\circ =$ whole turn	
	20	I can define an acute, obtuse and reflex angle using degrees	
	21	I can use my right angle Learn Its to find simple missing angles: $90^\circ = 1$ right angle, $180^\circ =$ half turn, $270^\circ =$ three quarter turn and $360^\circ =$ whole turn	
Fractions of a Whole	17	I can show a variety of equivalent fractions	
Fractions of a Set	12	I can use all tables Learn Its to find fractions of amounts	
Fractions: Counting	17	I can round numbers with 2dp	

## Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Fractions: Learn Its	8	I know $1/5 = 0.2$ $2/5 = 0.4$ $3/5 = 0.6$ $4/5 = 0.8$	
	9	I know $1/3 = 0.33333$ recurring	
Fractions: It's Nothing New	7	I can multiply unit fractions (beyond 1)	
Fractions: Calculation	6	I can simplify fractions ready for ordering... and order them	
	7	I can simplify fractions ready for calculating... and calculate with them	
Ratio	4	I can investigate increasing shapes by a given proportion	
Diagrams and Tables	24	I can explain data from a wide variety of representations	
Bar Charts	11	I can draw a bar chart with continuous data	
Line Graphs	3	I can explain a range of simple line graphs	
Pattern Spotting	9	I can spot and extend more challenging patterns of shapes	
Algebra	9	I can find a missing number by calculating first	
	10	I can use trial and improvement to find two missing numbers	
Prove It!	4	I can Prove It! - 4	

## Basic Skills

Progress Drive	Step	Statement	✓
Reading Numbers	10	I can read 9, 8, 7d numbers	
	11	I can read each digit with decimal places	
Place Value	4	I can partition a 2dp number	
Mastery of Numbers	7	I can understand 2dp numbers	
Count Along in 4 Ways	-2s, -5s	-2s -5s	
Counting Along Scales	5	I can count along any number line	
Multiplying by 10	4	I can multiply decimals by 100	
Dividing by 10	4	I can divide decimals by 100	
INN: Multiplication	5	I can do Smile Multiplication for hundredths	
Coin Multiplication	5	I know when to add 3 multiples together	
INN: Finding Multiples	5	I can find Mully using Coin Multiplication	
Multiple-Factor-Prime	3	I understand square numbers	
Addition	34	I can solve 1d.1dp + 1d.1dp	
	35	I can solve any 1d.1dp + 1d.1dp	
Subtraction	32	I can solve 3d - 3d	
	33	I can solve 3d - 3d as money	
Multiplication	15	I can solve 1d x 3d	
	16	I can show my understanding for 2d x 2d	
Division	26	I can combine a Smile Multiplication fact with a Tables Fact to solve division	
	27	I can combine a Smile Multiplication fact with a Tables Fact to solve division (with remainders)	
Addition - Column Methods	9	I can use Column Addition for several numbers	
Subtraction - Column Methods	8	I can solve any 5d - 5d	

**Basic Skills (Continued)**

Progress Drive	Step	Statement	✓
Multiplication - Column Methods	5	I can solve any $3d \times 2d$	
Division - Column Methods	6	I can solve any $2d \div 1d$ and $3d \div 1d$ with remainders	

## Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	24	I can recognise and draw diagonal lines	
2D Shapes	23	I can sort polygons by side number and identify specific triangles and quadrilaterals	
3D Shapes	20	I can recognise a 'simple' net of a cube and use it to construct a cube	
	21	I can recognise different nets of cubes	
Position and Direction	26	I can move a shape in one direction	
	27	I can move a shape in both directions	
Amounts of Distance	26	I can use the total perimeter to find missing side lengths	
Amounts of Mass	16	I can convert kilograms to grams	
Amounts of Money	15	I can use decimal notation for money	
Amounts of Space	20	I can convert litres to millilitres	
Amounts of Temperature	11	I can understand and use degrees Celsius	
Amounts of Time	27	I can calculate time gaps across several hours (5 min)	
Amounts of Turn	22	I can accurately estimate acute, obtuse and reflex angles	
	23	I can use a protractor to draw a right angle	
	24	I can use a protractor to draw a specified acute angle to the nearest 5°	
Fractions of a Whole	17	I can show a variety of equivalent fractions	
Fractions of a Set	13	I can go beyond my tables to find fractions of an amount	
Fractions: Counting	18	I can identify fractions less than 1, more than 1 or equal to 1	
Fractions: Learn Its	9	I know $\frac{1}{3} = 0.33333$ recurring	
Fractions: It's Nothing New	7	I can multiply unit fractions (beyond 1)	



## Wider Maths (Continued)

Progress Drive	Step	Statement	✓
<b>Fractions: Calculation</b>	8	I can find equivalent fractions	
	9	I can find equivalent fractions ready for ordering... and order them	
	10	I can find equivalent fractions ready for calculating... and calculate with them	
	11	I can convert mixed numbers to improper fractions using all my tables Learn Its	
	12	I can convert improper fractions to mixed numbers using all my tables Learn Its	
<b>Ratio</b>	5	I can decrease measures by a given proportion	
	6	I can use my Coin Card to find a missing value in one step	
	7	I can use my Coin Card to find missing values with simple rates	
<b>Diagrams and Tables</b>	24	I can explain data from a wide variety of representations	
<b>Bar Charts</b>	11	I can draw a bar chart with continuous data	
<b>Line Graphs</b>	4	I can use coordinates to explain line graphs	
	5	I can use a line graph to explain a simple ratio	
	6	I can use a line graph to answer a range of information questions	
<b>Pattern Spotting</b>	10	I can record the gaps between numbers in a number sequence	
	11	I can spot a steady gap	
	12	I can spot a steady gap and use it to extend the sequence	
	13	I can spot a steady gap and use it to find missing numbers	
	14	I can spot a steady gap and use it to find 2 consecutive missing numbers	
<b>Algebra</b>	11	I can use my tables Learn Its to find the value of missing numbers represented by letters	
<b>Prove It!</b>	4	I can Prove It! - 4	

## Basic Skills

Progress Drive	Step	Statement	✓
Place Value	5	I can partition a 3dp number	
Mastery of Numbers	8	I can understand 3dp numbers	
	9	I can understand 5, 6, 7, 8d numbers	
Count Along in 4 Ways	-25s	-25s	
Counting Along Scales	6	I can find the gap between 2 negative numbers	
Multiplying by 10	5	I can multiply whole numbers and decimals by 1000	
Dividing by 10	5	I can divide whole numbers and decimals by 1000	
Multiple-Factor-Prime	4	I understand prime numbers	
Addition	36	I can solve additions with 2dp	
	37	I can solve any additions with 2dp	
	38	I can solve additions with larger numbers	
Subtraction	34	I can subtract numbers with hundredths	
	35	I can subtract numbers with tenths	
	36	I can solve subtraction with large numbers	
Multiplication	16	I can show my understanding for $2d \times 2d$	
Division	28	I can use a coin fact to find a division fact	
	29	I can use a coin fact to find a division fact (with remainders)	
	30	I can combine 2 or more Coin Facts to solve division	
	31	I can combine 2 or more Coin Facts to solve division (with remainders)	
Addition - Column Methods	10	I can solve any $5d + 5d$	
Subtraction - Column Methods	8	I can solve any $5d - 5d$	
Multiplication - Column Methods	6	I can solve any $4d \times 1d$	
Division - Column Methods	7	I can solve any $4d \div 1d$ and interpret the context of the remainder	

## Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	24	I can recognise and draw diagonal lines	
2D Shapes	24	I can sort regular and irregular polygons by reasoning about their properties	
	25	I can find missing side lengths using shape properties	
3D Shapes	22	I can make a range of familiar 3D shapes given their net	
	23	I can match a net to a 3D shape, i.e. I know if it's the right net	
Position and Direction	28	I can reflect a shape across a vertical line, then a horizontal line	
	29	I can reflect and translate shapes	
Amounts of Distance	27	I can convert kilometres and metres in both directions and to 3dp	
	28	I know about imperial units for distance	
Amounts of Mass	17	I can convert kilograms and grams in both directions and to 3dp	
	18	I know about imperial units for mass	
Amounts of Money	16	I can use all of CLIC in the context of money	
	17	I can manage a simple budget	
Amounts of Space	21	I understand that to measure area we need to count standard sized squares and that this has special notation	
	22	I can calculate areas using CLIC	
	23	I can convert litres and millilitres in both directions and to 3dp	
	24	I know about imperial units for capacity	
	25	I understand that to measure volume we need to count standard sized cubes and that this has special notation	
	26	I can estimate volume and capacity	

## Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Amounts of Temperature	12	I can find temperature differences (positive numbers)	
	13	I can find temperature differences (negative numbers)	
	14	I can find temperature differences between a positive and a negative number	
Amounts of Time	28	I can calculate time gaps within an hour (1 min)	
	29	I can calculate time gaps across an hour (1 min)	
	30	I can calculate time gaps across several hours (1 min)	
	31	I can convert times and then calculate time gaps	
Amounts of Turn	25	I can use a protractor to measure a specified acute angle to the nearest 2°	
	26	I can use a protractor to draw a specified obtuse angle to the nearest 2°	
	27	I can use a protractor to measure a specified obtuse angle to the nearest 2°	
	28	I can use a protractor to draw a specified reflex angle to the nearest 2°	
	29	I can use a protractor to measure a specified reflex angle to the nearest 2°	
	30	I can measure the 4 internal angles of quadrilaterals and explore the sum	
Fractions of a Whole	17	I can show a variety of equivalent fractions	
Fractions of a Set	13	I can go beyond my tables to find fractions of an amount	
Fractions: Counting	19	I can count in thousandths	
	20	I know that counting in hundredths is counting percentages	
Fractions: Learn Its	10	I know all of my percentage Learn Its	
Fractions: It's Nothing New	8	I can use Smile Multiplication for fractions	

## Wider Maths (Continued)

Progress Drive	Step	Statement	✓
<b>Fractions: Calculation</b>	13	I can convert fractions from/to mixed numbers ready for ordering... and order them	
	14	I can convert fractions from/to mixed numbers ready for calculating... and calculate with them	
	15	I can multiply proper fractions by whole numbers	
	16	I can multiply mixed numbers by whole numbers	
	17	I can see that percentages are proportions	
<b>Percentages</b>	1	I know that counting in hundredths is counting percentages!	
	2	I can see that percentages are proportions	
	3	I know all of my percentage Learn Its	
<b>Ratio</b>	8	I can use my Coin Card to find a missing value in two steps	
<b>Diagrams and Tables</b>	25	I can read, use and calculate with a wide range of tables and timetables	
<b>Bar Charts</b>	11	I can draw a bar chart with continuous data	
<b>Line Graphs</b>	6	I can use a line graph to answer a range of information questions	
<b>Probability</b>	1	I can describe familiar events using chance and likelihood	
	2	I can compare the likelihood of 2 familiar events	
	3	I understand that probability is about what might happen	
	4	I know when something is impossible or certain	
	5	I can see when 2 events are equally likely	
	6	I can recognise when an event has an even chance	
	7	I can show an even chance using numbers	
<b>Pattern Spotting</b>	15	I can predict other numbers in the sequence, away from the numbers given	
	16	I can spot patterns in sequences with decimals/fractions/negative numbers	
	17	I can spot patterns where the gap is a fraction	

**Wider Maths (Continued)**

Progress Drive	Step	Statement	✓
Algebra	12	I can solve equations with brackets	
	13	I can describe algebraically how to always solve $1d \times 2d$	
	14	I can choose my own letter to represent an unknown number that is being multiplied	
Prove It!	5	I can Prove It! - 5	