Big Maths

Year 1

Termly Learning Objectives


Counting

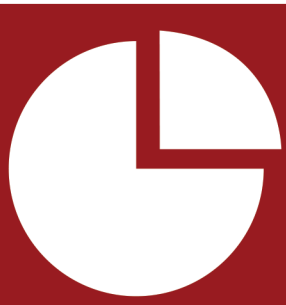
Learn Its


It's Nothing New


Calculation


Shape

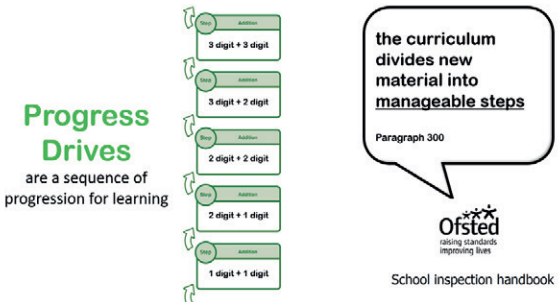

Amounts

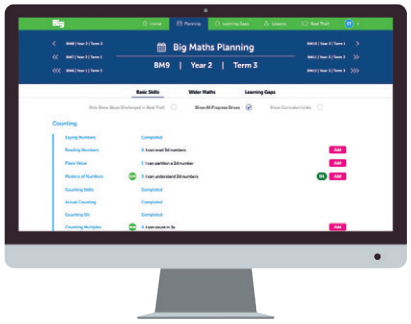

Fractions


Explaining Data

Andrell Education Ltd

Big Maths takes the broader curriculum statements from the national curriculum and breaks them down into smaller manageable steps. This results in a sequence of learning that forms the structure of the Big Maths curriculum design, which schools can then adopt. In Big Maths we call each strand/spine a Progress Drive, since it becomes a tool for the teacher to drive (as in 'to guide' or 'to steer') the learner's progress. We can see too how Ofsted now explicitly recognises this as a crucial curriculum design feature for maths.



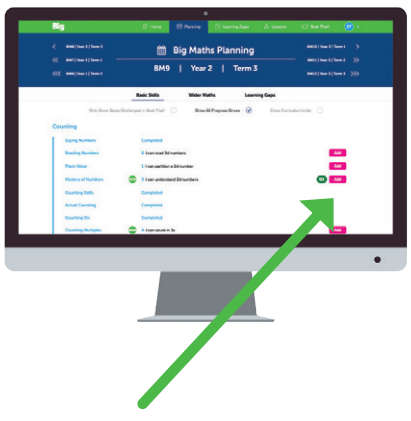


It is also effective to know *when* learners should secure each small step on the Progress Drive. This is an age-related expectation that comes from mapping the smaller steps to national curriculum year group statements. This provides the teacher with a clear and simple view of which steps need to be secured each term in order to keep the learner 'on track'. These can be seen as a list of term by term learning objective statements on the Big Maths Online website.

This can also be seen here in this 'termly learning objectives' planning document. This can be downloaded and printed out from the library section within the Big Maths Online website (new learning is denoted by being highlighted in green).

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	



Click here to immediately add this step to Big Maths Online weekly/lesson planning:

- Teacher notes are added automatically.
- Personalised notes can be added.
- Chosen resources from Big Maths Online can also be immediately added.

This planning guidance should not be used as a list that takes the teacher back to the antiquated days of simply 'covering a curriculum', but rather is a list of 'next steps' for learners to secure (that term) in their long term memory, the teacher having ensured learners have secured earlier steps on that Progress Drive. The teacher will need to construct their own plan as to how they will guide their pupils from their current starting points to the desired end points for that term. Although this requires important thinking that can only be done at the bespoke level of that teacher responding to that particular class of children, the planning process itself is quick and easy since the step is always simply located from the structure of the Big Maths curriculum, and the teacher notes and resources are there to be found at that location. All the teacher need do is click and add that step to their weekly/lesson plan, and then familiarise themselves with the delivery of that step.

A more short-hand version of this termly planning view is to use the Big Maths planning document that outlines the expected finishing position for leaners that term on each Progress Drive. This document simply shows which step the learner should be on by the end of that term if they are to be classed as 'on track'.

	Progress Drive	Steps
C	Saying Numbers	✓
	Reading Numbers	10, 11
	Place Value	4
	Mastery of Numbers	7
	Counting Skills	✓
	Actual Counting	✓
	Counting On	✓
	Counting Multiples	✓
	Counting Along in 4 Ways	-2s, -5s
	Counting Along Scales	5

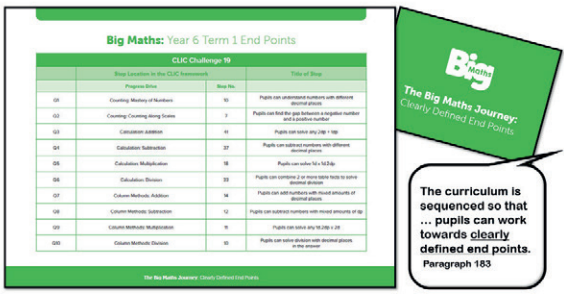
	Progress Drive	Steps
L	Learn its	✓

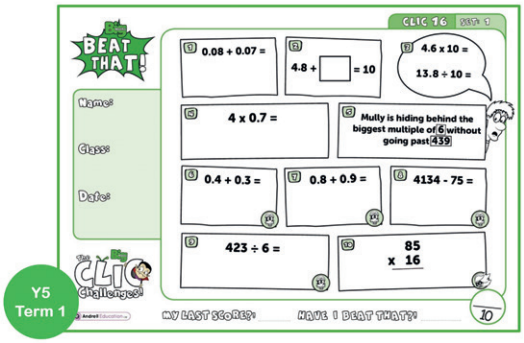
	Progress Drive	Steps
I	Swapping the Units	✓
	INN: Addition and Subtraction	✓
	Doubling & Halving	✓ ✓ ✓
	INN: Number Bonds to 10	✓
	x10 & ÷10	4 4
	INN: Multiplication	5
	Coin Multiplication	5

	Progress Drive	Steps
S	Explore & Draw	24
	2D Shapes	23
	3D Shapes	20, 21
	Position & Direction	26, 27

	Progress Drive	Steps
A	Amounts of Distance	26
	Amounts of Mass	16
	Amounts of Money	15
	Amounts of Space	20
	Amounts of Temperature	11
	Amounts of Time	27
	Amounts of Time: Telling the Time	✓
	Amounts of Turn	22, 23, 24

	Progress Drive	Steps
F	Fractions of a Whole	17
	Fractions of a Set	13
	Fractions: Counting	18
	Fractions: Learn its	9
	Fractions: It's Nothing New	7
	Fractions: Calculation	8 - 12





The Big Maths Beat That challenges are also mapped into this age-related expectation journey. Indeed, the 10 questions on each CLIC challenge represent the most essential core knowledge of the curriculum that the learner should have acquired. In effect, the 10 questions are 10 learning objectives that provide the sharpest focus of a clearly defined end point for each term. This allows the school to have perfect transparency as to which individuals, and what proportion of individuals, are 'on track' at any one time. Ensuring all pupils secure this core knowledge of the curriculum is a vital aspect of any mastery approach. Again, this idea of breaking the bigger maths journey into smaller clearly defined parts, mapped into an expected timeframe, is something that has been part of Big Maths for over a decade, but that Ofsted now recognises as an essential element of curriculum design.

Using Big Maths Online to track the performance of pupils will speed up the teacher's response to planning the next steps for learning. This can be extended into pupils completing their challenges online so that there is no printing, photocopying, sheet-management or marking; yet, the teacher can use the learning gaps feature to respond immediately in their online planning if they so wish.

Basic Skills

Progress Drive	Step	Statement	✓
Saying Numbers	3	I can count from 60 to 69	
	4	I can count to 100	
Reading Numbers	3	I can read 2d multiples of 10	
	4	I can read 2d numbers	
Mastery of Numbers	1	I can understand numbers to 10	
Counting Multiples	2	I can count is 5s	
Learn Its	4	1+9=10 2+8=10 3+7=10 4+6=10 5+5=10	
Swapping the Units	1	Swap 'the thing' to another object	
Doubling with Pim (without crossing 10)	1	I can double 1d numbers	
INN: Number Bonds to 10	1	I can find the missing piece to 10	
Addition	5	I can add numbers of objects to 10	
Subtraction	5	I can take away numbers of objects to 10	
Multiplication	3	I can set out groups of blocks when I play	
	4	I can find the total amount of blocks	
Division	5	I can share 6, 9, 12 or 15 objects between 3 people	

Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	7	I can recognise symmetry around me	
2D Shapes	10	I can identify 2D shapes in real life	
3D Shapes	7	I can identify 3D shapes in real life	
Position and Direction	9	I can describe position, directions and movements	
Amounts of Distance	5	I can compare amounts of distance by counting	
Amounts of Mass	4	I can compare 3 different amounts of mass	
Amounts of Money	4	I can play 'shop'! 3 - making simple calculations	
Amounts of Space	4	I can compare 3 different amounts of space	
Amounts of Temperature	4	I understand hotter and colder	
Amounts of Time	10	I can place several events in chronological order	
Amounts of Turn	2	I can make a half turn	
Fractions of a Whole	1	I understand a half	
	2	I can spot a half	
Fractions of a Set	3	I can find half of a set of objects by sharing	
Fractions: Learn Its	1	I know my finger doubles as fractions Learn Its	
Diagrams and Tables	5	I can sort using two lists	
	6	I can sort using a circle	
Bar Charts	1	I can build counting towers	
Pattern Spotting	6	I can spot, copy and create different patterns	

Basic Skills

Progress Drive	Step	Statement	✓
Saying Numbers	4	I can count to 100	
Reading Numbers	5	I can read 3d multiples of 100	
Mastery of Numbers	1	I can understand numbers to 10	
Counting Multiples	2	I can count is 5s	
Learn Its	5	4+2 5+2 6+2 7+2 9+2 4+3 5+3 6 + 3	
Swapping the Units	1	Swap 'the thing' to another object	
Doubling with Pim (without crossing 10)	2	I can double 2d multiples of 10	
INN: Number Bonds to 10	1	I can find the missing piece to 10	
Addition	6	I can read a number sentence	
	7	I can arrange a number sentence	
	8	I can solve a number sentence	
	9	I can solve addition on a number line	
Subtraction	6	I can read a subtraction number sentence	
	7	I can arrange a subtraction number sentence	
	8	I can solve a subtraction number sentence	
	9	I can solve subtraction on a number line	
Multiplication	4	I can find the total amount of blocks	
Division	6	I can share 6, 9, 12 or 15 objects into 3	

Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	7	I can recognise symmetry around me	
2D Shapes	11	I know that there are different shaped triangles	
3D Shapes	7	I can identify 3D shapes in real life	
Position and Direction	9	I can describe position, directions and movements	
Amounts of Distance	6	I can compare amounts of distance, using words and numbers, in lots of different practical contexts	
Amounts of Mass	5	I can compare amounts of mass by counting	
Amounts of Money	5	I can recognise specific coins and notes	
	6	I can use coins to make totals up to 10p	
Amounts of Space	5	I can compare amounts of space by counting	
Amounts of Temperature	5	I can use a range of words to describe temperature	
Amounts of Time	11	I can use my understanding of time in all areas of my learning	
	12	I can understand the date	
	13	I can count in o'clocks	
Amounts of Time: Telling the Time	1	I can read o'clock times	
	2	I can write o'clock times	
	3	I can describe the time using the nearest o'clock	
Amounts of Turn	2	I can make a half turn	
Fractions of a Whole	2	I can spot a half	
Fractions of a Set	4	I can find a third of a set of objects by sharing	
Fractions: Learn Its	1	I know my finger doubles as fractions Learn Its	
Diagrams and Tables	6	I can sort using a circle	
Bar Charts	1	I can build counting towers	
Pattern Spotting	7	I can extend patterns (including number)	

Basic Skills

Progress Drive	Step	Statement	✓
Saying Numbers	5	I can count past 100	
Reading Numbers	5	I can read 3d multiples of 100	
Place Value	1	I can partition a 2d number	
Mastery of Numbers	2	I can understand numbers to 20	
Counting Multiples	3	I can count in 2s	
Count Along in 4 Ways	1s, 10s, 2s, 5s	1s 10s 2s 5s	
Learn Its	6	6+6 7+7 8+8 9+9	
Swapping the Units	1	Swap 'the thing' to another object	
Doubling with Pim (without crossing 10)	2	I can double 2d multiples of 10	
Doubling with Pim (with crossing 10)	1	I can double 1d numbers	
Halving with Pim	1	I can find half of 3,5,7,9	
INN: Number Bonds to 10	1	I can find the missing piece to 10	
INN: Fact Families	1	I know the Fact Families for 1d + 1d facts	
Addition	10	I can add 1 to a number up to 20	
	11	I can add 2 or 3 to a number up to 20	
	12	I can add a 1d number to a number to 20	
Subtraction	10	I can take 1 from a number to 20	
	11	I can take 2 or 3 from a number to 20	
	12	I can take a 1d number from a number to 20	
Multiplication	5	I can draw out groups of dots	
	6	I can find the total amount of dots	

Basic Skills (Continued)

Progress Drive	Step	Statement	✓
Division	7	I can share 8, 12, 16 or 20 objects between 4 people	
	8	I can share 8, 12, 16 or 20 objects into 4	
	9	I can share equally to solve division problems	
	10	I can make groups of 2, 5 or 10	
	11	I can find how many altogether by counting through each group	

Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	7	I can recognise symmetry around me	
2D Shapes	12	I know that the same shape can come in different sizes	
	13	I can recognise many different types of familiar 2D shapes	
3D Shapes	8	I can recognise a cuboid and a cylinder	
	9	I know that a cube is a special cuboid	
	10	I can recognise many different types of familiar 3D shapes	
Position and Direction	10	I can understand 'clockwise' as a direction of turn	
Amounts of Distance	6	I can compare amounts of distance, using words and numbers, in lots of different practical contexts	
Amounts of Mass	6	I can compare amounts of mass, using words and numbers, in lots of different practical contexts	
Amounts of Money	7	I can use coins to make totals up to 20p	
Amounts of Space	6	I can compare amounts of space, using words and numbers, in lots of different practical contexts	
Amounts of Temperature	5	I can use a range of words to describe temperature	
Amounts of Time	13	I can count in o'clocks	
Amounts of Time: Telling the Time	4	I can read, write and draw half past	
Amounts of Turn	3	I can make a quarter and three quarter turn	
Fractions of a Whole	3	I understand a quarter	
	4	I can spot a quarter	
	5	I understand a third	
	6	I can spot a third	
	7	I can spot equal parts of a whole	
Fractions of a Set	5	I can find a quarter of a set of objects by sharing	
Fractions: Learn Its	1	I know my finger doubles as fractions Learn Its	
Ratio	1	I can show appreciation of a fixed number relationship	

Wider Maths (Continued)

Progress Drive	Step	Statement	✓
Diagrams and Tables	7	I can explain the Big Maths Beat That! display	
	8	I can sort objects using two circles	
	9	I can explain simple pictograms	
	10	I can keep a tally	
	11	I can explain tally charts	
	12	I can sort using a Carroll diagram	
Bar Charts	2	I can explain counting towers	
Line Graphs	1	I can track my own Big Maths Beat That! scores with a block graph	
Pattern Spotting	8	I understand the pattern of odd and even numbers	
Algebra	1	I can use Pim to swap 'the thing' to a letter	
	2	I know symbols can represent unknown numbers	
Prove It!	1	I can Prove It! - 1	

Big Maths.
Better Online.

What's Included?

- Detailed teacher guidance!
- Simple and efficient tracking.
- Easy to create lesson plans.
- Online Beat That! Challenges.
- Saves each teacher at least five hours per week in planning time.
- We are with you every step of the way with telephone and email support.
- Over 5,000 focused, fun, tailored resources.

Find out more about the online features here:

www.BigMaths.com

Andrell Education Ltd

How to Contact us:
Web: www.AndrellEducation.com
Email: contact@andrelleducation.com
Tel: +44 (0) 1924 229380
Fax: +44 (0) 1924 250412

Version Ref: 1.1 19/12/2019