Paget Arithmetic Long Term Plan – Autumn

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Year 1	Mastering Number – initial assessment	Mastering Number – subitise within 5	Mastering Number – numbers 6-9	Mastering Number – compare numbers within 10	Mastering Number – order numbers within 10	Mastering Number – compare numbers within 10	Mastering Number – even numbers	Mastering Number – odd numbers	Mastering Number – composition of numbers 6, 8 and 10	Mastering Number – explore number tracks	Mastering Number – explore number lines	Mastering Number – assessment
Year 2	Mastering Number – Composition of numbers 6-9	Mastering Number – Composition of numbers 6-9	Mastering Number – Compare numbers using < > =	Mastering Number – Compare numbers using < > =	Mastering Number – Review structure of even numbers	Mastering Number – Review structure of even numbers	Mastering Number – Odd numbers	Mastering Number – Odd numbers	Mastering Number – composition of numbers 10-20	Mastering Number – composition of numbers 10-20	Mastering Number – linear number system to 20	Mastering Number – linear number system to 20
Year 3	Addition and subtraction fact fluency, bridging through 10. Where are the gaps?	Quick fire doubles	Revision of bonds to 20/100	Using place value to order 4, three digit numbers	Finding doubles up to double 15	Finding half up to half of 40	2 times tables revision including divisions	10 times tables With division facts Being fluent Can they see the array?	Create own multiplication grid – looking at arrays on squared paper	5 times table revision	5 times table divisions	2s, 5s and 10s mixed problems
Year 4	Addition facts, including facts that bridge through 10 baseline – look for gaps	Multiply by 10 and 100 Use place value sliders	Mixed 2s 5s and 10s facts – make links between 2s and knowing 20 times, etc	Find doubles up to 50 by partitioning	4 times tables – link to 2s and doubles	8 times tables – link to 4s and doubles. Have both tables displayed. See links with Cuisenaire rods – I have noticed…	8 times tables – Beginning to get more fluent. Use counters to make arrays Introduce partial tables 1 x __ 2 x __ 4 x __ 5 x __ 10 x __	Mixed 2s, 5s, 10s, 4s, 8s With divisions and missing number problems Make links – if I know…	Order numbers beyond 1000 (e.g. 3452, 4352, 4532, 5432)	3 times tables Practically What will the digits sum to?	3 times tables fact families	3 times tables becoming fluent Assessment Gap filling
Year 5	Revision of 3 times table and division facts	Compare numbers to 1 000 000 using < and >	Identify a digit within a 6 digit number, e.g. value of 7 in 234 768	4 times table with division facts	Negative numbers	6 times table with division facts	Roman numerals to 1000	8 times table with division facts	Round numbers to the nearest 10, 100, 1000	Random facts from 3s, 6s, 4s and 8s	Identify all factor pairs of a number	Find common factors of 2 numbers
Year 6	Place value of any digit in 10 000 000 Order fractions including fraction > 1 Balance equations Random arithmetic questions (e.g. from Testbase)	Order numbers up to 10 000 000 Simplify fractions Calculate missing values Random arithmetic questions	Negative numbers Add fractions with different denominators Find percentages of whole numbers Random arithmetic questions	Place value of decimals Subtract fractions with different denominators Scaling problems Random arithmetic questions	Order decimals Multiplying fractions Using ratio to find missing quantities Random arithmetic questions	Multiply decimals by 1000 Dividing fractions by whole numbers Use simple formulae (area of a triangle) Random arithmetic questions	Divide 2d and 3d numbers by 1000 Decimal to fraction equivalents Linear number sequences Random arithmetic questions	Adding decimals using column meth Multiply whole numbers and decimals Algebra for missing number problems Random arithmetic questions	Subtracting decimals using column meth Division with decimal answers Find numbers for an equation with 2 unknowns Random arithmetic questions	Short multiplication Fraction, percentage, decimal equivalents Enumerate combinations of two variables Random arithmetic questions	Long multiplication Order fractions including fraction > 1 Balance equations Random arithmetic questions (e.g. from Testbase)	Short division Simplify fractions Calculate missing values Random arithmetic questions

Paget Arithmetic Long Term Plan – Spring

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Year 1	Mastering Number – explore composition of number 7 and 9	Mastering Number – explore composition of number 7 and 9	Mastering Number – explore odd and even	Mastering Number – explore odd and even	Mastering Number – explore odd and even	Mastering Number – 2 more and less	Mastering Number – 2 more and less	Mastering Number – partitioning numbers to 10	Mastering Number – partitioning numbers to 10	Mastering Number – augmentation of addition	Mastering Number – reduction	Mastering Number – number stories
Year 2	Mastering Number – Double numbers 6-9	Mastering Number – Near doubles	Mastering Number – Bonds of 10 and 20	Mastering Number – Bonds of 10 and 20	Mastering Number – Bonds of 10 and 20 within 10	Mastering Number – Bonds of 10 and 20 within 10	Mastering Number – 3 addends	Mastering Number – 3 addends	Mastering Number – add and subtract across the 10 boundary	Mastering Number – add and subtract across the 10 boundary	Mastering Number – multiples of 10 on a number line and midpoints	Mastering Number – multiples of 10 on a number line and midpoints
Year 3	Addition and subtraction fact fluency, bridging through 10. Where are the gaps?	10, 100, 1000 more or less with 4 digit numbers (use Numbers Up charts)	Mixed 2s, 5s and 10s times tables with divisions	Revise adding and subtracting multiples of 10 crossing 100 boundary	Revise adding and subtracting multiples of 100 crossing 1000 boundary	Links between 2 times tables and finding doubles. Find doubles up to double 50	Links between 2 and 4 times tables	4 times tables chant and rehearse	4 times table fact families	4 times table with divisions	4 times table becoming fluent	Mixed 2s and 4s times tables
Year 4	Addition and subtraction fact fluency, bridging through 10. Where are the gaps?	6 times tables Start with 3s and look at patterns to make 6s	6 times tables Becoming fluent	9 times tables Make links to 3s and 6s Look at other patterns	9 times tables Continue to look for patterns What do the digits total? etc	Mixed facts for all learnt so far – 2s, 5s, 10s, 4s, 8s, 3s, 6s, 9s	7 times tables (hardest as not easy to make links to other tables). Discuss odd and even numbers, prime etc	7 times tables – becoming fluent	Mixed 2s, 4s 8s With divisions	Mixed 3s, 6s, 9s With divisions	Revisit 7 times tables	Assessment week Gaps in learning
Year 5	Related facts from 3s, 4s, 6s, 8s (i.e. 4 x 60, 7 x 0.8)	7 x table with divisions	Short multiplication for 4d x 1d	9 times tables with divisions	Multiplying and dividing by 10, 100, 1000	12 times table with divisions	Short division with remainders	Short division with decimal remainders	Divide whole numbers and decimals by 10, 100, 1000 Random facts from 7s, 9s, 12s	Roman numbers up to 1000 Random facts from 7s, 9s, 12s	Related facts from 7s, 9s, 12s (i.e. 7 x 50, 0.3 x 9)	Order fractions by converting to find a common denominator Related facts from 7s, 9s, 12s
Year 6	Long division Add fractions with different denominators Find percentages of whole numbers Random arithmetic questions	Mental multiplication using known facts Subtract fractions with different denominators Scaling problems Random arithmetic questions	Factors, multiples and prime Multiplying fractions Using ratio to find missing quantities Random arithmetic questions	Roman numerals to 1000 Dividing fractions by whole numbers Use simple formulae (area of a triangle) Random arithmetic questions	Rounding to nearest 1, 10, 100, 1000 Decimal to fraction equivalents Linear number sequences Random arithmetic questions	Order numbers up to 10 000 000 Multiply whole numbers and decimals Algebra for missing number problems Random arithmetic questions	Negative numbers Division with decimal answers Find numbers for an equation with 2 unknowns Random arithmetic questions	Order decimals Fraction, percentage, decimal equivalents Enumerate combinations of two variables Random arithmetic questions	Multiply decimals by 1000 Order fractions including fraction > 1 Balance equations Random arithmetic questions (e.g. from Testbase)	Divide 2d and 3d numbers by 1000 Simplify fractions Calculate missing values Random arithmetic questions	Short multiplication Add fractions with different denominators Find percentages of whole numbers Random arithmetic questions	Long multiplication Subtract fractions with different denominators Scaling problems Random arithmetic questions

Paget Arithm

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Year 1	Mastering Number – composition of numbers 11-19	Mastering Number – composition of numbers 11-19	Mastering Number – identifying midpoints	Mastering Number – identifying midpoints	Mastering Number – compare numbers within 20	Mastering Number – compare numbers within 20	Mastering Number – addition and subtraction equations	Mastering Number – addition and subtraction equations	Mastering Number – retrieving taught facts	Mastering Number – retrieving taught facts	Mastering Number – reasoning about taught facts	Mastering Number – assessment
Year 2	Mastering Number – subtract across 10	Mastering Number – subtract across 10	Mastering Number – bonds of 20	Mastering Number – bonds of 20	Mastering Number – reasoning about equations	Mastering Number – reasoning about equations	Mastering Number – doubles and near doubles	Mastering Number – doubles and near doubles	Mastering Number – consolidate previously taught facts	Mastering Number – consolidate previously taught facts	Mastering Number – consolidate previously taught facts	Mastering Number – consolidate previously taught facts
Year 3	Addition and subtraction fact fluency, bridging through 10. Where are the gaps?	Halving 2 digit numbers including 90, 70, 50 and 30	4 times tables revision	Links between 4 times table and 8 times table	8 times tables chants and raps	10 more or less 100 more or less Using Numbers Up charts	8 times table fact families	8 times tables with divisions	2s and 4s mixed tables	4s and 8s mixed tables	2s, 4s, 8s, 5s, 10s mixed tables filling in gaps in learning	Gap filling
Year 4	Addition and subtraction fact fluency, bridging through 10. Where are the gaps?	Revisit 9 times tables	11 times tables becoming fluent – with arrays to see that it is 10 times and 1 times	12 times tables becoming fluent – with arrays to see that it is 10 times and 2 times	Mixed tables AfL – which specific facts need to be learned before the MTC	AfL – which specific facts need to be learned before the MTC	Round any number to the nearest 10, 100 or 1000	Read roman numerals to 100	Column addition and subtraction with money	Balancing addition and subtraction problems □+25 = 92+□ □ -15 = 96 -□	Short Division 630÷9= 7505÷5=	Gap filling
Year 5	Identify and name equivalent fractions of a given fraction Random times table facts	Recognise mixed and improper fractions Random times table division facts	Convert between mixed and improper fractions Random times table facts	Add and subtract fractions with the same denominators Related decimal facts	Add and subtract fractions with different denominators Related decimal facts	Multiply fractions by whole numbers Related multiples of 10/100 facts	Multiply mixed fractions by whole numbers Related multiples of 10/100 facts	Squared numbers Random times table facts	Cubed numbers Random times table facts	Identify prime numbers, prime factors and composite numbers Random times table division facts	Order numbers with up to three decimal places Related decimal facts	Write percentages as a fraction and a decimal Related multiples of 10/100 facts
Year 6	Short division Multiplying fractions Using ratio to find missing quantities Random arithmetic questions	Long division Dividing fractions by whole numbers Use simple formulae (area of a triangle) Random arithmetic questions	Mental multiplication using known facts Decimal to fraction equivalents Linear number sequences Random arithmetic questions	Factors, multiples and prime Multiply whole numbers and decimals Algebra for missing number problems Random arithmetic questions	Roman numerals to 1000 Division with decimal answers Find numbers for an equation with 2 unknowns Random arithmetic questions	Rounding to nearest 1, 10, 100, 1000 Fraction, percentage, decimal equivalents Combinations of two variables Random arithmetic questions	Fill gaps in learning	Fill gaps in learning	Fill gaps in learning	Fill gaps in learning	Fill gaps in learning	Fill gaps in learning

Sessions should follow the Mastering Number ideals of being:

- fun, pacey, include chorusing, non-threatening, altogether, practical, have 1 focus, visual images, follow a clear sequence in small steps, filled with talk and sentence stems

Ideas:

1. Have blank multiplication grid and colour in the ones we now know – use commutative rule. Look at at the start of each week and the end.
2. Rolling numbers (quick and fun way of chanting times tables) - https://www.tes.com/teaching-resource/rolling-number-lyrics-times-table-songs-12044298
3. Use counting stick forwards/backwards, skip spaces. Please watch this video on teaching the 17 times table for ideas on questions to ask and links to make - https://www.youtube.com/watch?v=yXdHGBfoqfw
4. Use images such as arrays. Make arrays with counters – I don't know 6 times 4 but if I know 5 times and 1 times 4 I can work it out
5. Work through partial tables;

   1 x __ = __
   2 x __ = __
   4 x __ = __
   5 x __ = __
   We know what 1 x is. How can we use this for 2 x? How can we use this for 4x?
   We know what 10 x is. How can we use this for 5x?
6. Give children access to TT Rockstars online, particularly those who may not have access at home
7. Make own multiplication grids looking at squares and arrays – HS to demonstrate when you are ready for this.
8. Spring term – parent workshop – to push at home. Fun and non-threatening. TT Rockstars. Games and activities that go home. Games with cards. Get stars to go home and practise. Show 17 times tables video to parents
9. Dominoes – stick missing number fact to the back. In pairs turn over a domino, if they can name the product they can keep it.
10. Fluency Friday – put a sticker on you for a fact you need to know and everybody has to ask question including going home

etic Long Term Plan – Summer