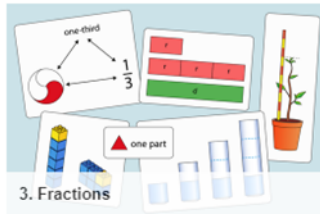
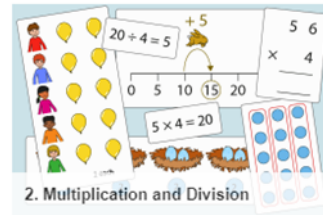
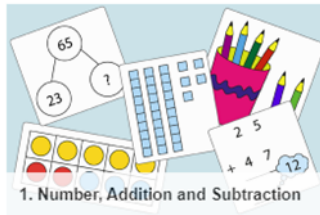




White Rose Scheme of learning and the NCETM PD materials



This document includes our long term plan for the Year which is aligned with the White Rose Scheme of Learning and the NCETM PD materials. At Stapleford we follow teaching for mastery and these materials and tools are used to guide our planning to ensure lessons build gradually and demonstrate coherence. We use progression documents to help us ensure learning follows on from what has come before and aim to develop cross curricular links with other subjects and across math topics (such as incorporating shape into other areas) to deepen learning. We also use Nrich regularly to reinforce learning and promote fluency of number and problem solving and reasoning.

The [NCETM](#) and [DFE Maths guidance Year 1](#) gives guidance as to the progression through areas of study.

Year 1

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
AUTUMN	White Rose: Number: Place Value (within 10)				White Rose: Number: Addition and Subtraction (within 10)				White Rose: Shape	White Rose: Number: Place Value within 20		
	NCETM 1. 1 Composition of quantities and measures 1. 2 Introducing 'whole' and 'parts 1. 3 Composition of number 0-5 1. 4 Composition of numbers 6 -10				NCETM 1. 5 Additive structures: introduction to aggregation and partitioning 1. 6 Additive structures: introduction to augmentation and reduction 1. 7 Addition and subtraction: strategies within 10 -					NCETM: 1. 8 Composition of numbers: multiples of 10 up to 100 1. 9 Composition of numbers 20 -100 1. 10 Composition of numbers 11-19		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
SPRING	CONSOLIDATION											
	White Rose: Number: Addition and Subtraction within 20				White Rose: Number: Place Value (within 50) (Multiples of 2, 5, 10)			White Rose: Measurement: Length and Height		White Rose: Measurement: Weight and Volume		CONSOLIDATION
					NCETM: Remind of 1.8, 1.9, 1.10 2.1 Counting, unitising and coins							

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
SUMMER	CONSOLIDATION	White Rose: : Multiplication and Division (reinforce multiples of 2, 5, 10) NCETM: Recap 2.1			White Rose: Number: Fractions		White Rose: Position and direction	White Rose: Place Value: Within 100 NCETM: Recap 1.8 and 1.9		White Rose: Measures: Money	White Rose: Measures: Time	

Year 1 Maths - Programme of Study Taken from the [National Curriculum](#)

Number - number and place value

Pupils should be taught to:

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
- given a number, identify 1 more and 1 less
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- read and write numbers from 1 to 20 in numerals and words

Notes and guidance (non-statutory)

- Pupils practise counting (1, 2, 3...), ordering (for example, first, second, third...), and to indicate a quantity (for example, 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent.
- Pupils begin recognising place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations.
- They practice counting as reciting numbers and counting as enumerating objects, and counting in 2s, 5s and 10s from different multiples to develop their recognition of patterns in the number system (for example, odd and even numbers). Including varied and frequent practice through increasingly complex questions.
- They recognise and create repeating patterns with objects and shapes

Number - addition and subtraction

Pupils should be taught to:

- read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including 0
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$

Notes and guidance (non-statutory)

- Pupils memorise and reason with number bonds to 10 and 20 in several forms (for example, $9+7 = 16$; $16-7=9$; $7=16-9$).
- They should realise the effect of adding or subtracting 0. This establishes addition and subtraction as related operations.
- Pupils combine and increase numbers counting forwards and backwards.

- They discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are enabled to use the operations flexibly.

Number - multiplication and division

Pupils should be taught to:

- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

Notes and guidance (non-statutory)

- Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities.
- They make connections between arrays, number patterns and counting 2s, 5s and 10s.

Number - fractions

Pupils should be taught to:

- recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity
- recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity

Notes and guidance (non-statutory)

- Pupils are taught half and quarter as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. For example they could recognise and find half a length, quantity, set of objects or shape. Pupils connect halves and quarters to equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.

Measurement

Pupils should be taught to:

- compare, describe and solve practical problems for:
 - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
 - mass/weight [for example, heavy/light, heavier than, lighter than]
 - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
 - time [for example, quicker, slower, earlier, later]
- measure and begin to record the following:
 - lengths and heights
 - mass/weight
 - capacity and volume
 - time (hours, minutes, seconds)

- recognise and know the value of different denominations of coins and notes
- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

Notes and guidance (non-statutory)

- The pairs of terms: mass and weight, volume and capacity, are used interchangeable at this stage,
- Pupils move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units.
- In order to become familiar with standard measures, pupils begin to use measuring tools such as a ruler, weighing scales and containers.
- Pupils use the language of time, including telling the time through the day, first using o'clock and then half past.

Geometry - properties of shapes

Pupils should be taught to:

- recognise and name common 2-D and 3-D shapes, including:
 - 2-D shapes [for example, rectangles (including squares), circles and triangles]
 - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]

Notes and guidance (non-statutory)

- Pupils handle common 2-D and 3-D shapes, naming these and related everyday objects fluently, They recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other.

Geometry - position and direction

Pupils should be taught to:

- describe position, direction and movement, including whole, half, quarter and three-quarter turns

Notes and guidance (non-statutory)

- Pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.
- Pupils make whole, half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face.

Year 1 Maths - Cross curricular maths

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Science Sorting and classifying different animals</p> <p>Tallying - lunches and housepoints</p>	<p>Science/ Geography months of the year and seasons</p> <p>Comparing temperatures find the difference.</p> <p>Measuring rainfall</p> <p>History timelines - comparing dates</p>	<p>History - Timelines,</p> <p>Data Handling - which is the most popular toy, least popular.</p> <p>Art - making puppets, designing them using shape and patterns.</p>	<p>Explorers - average temperatures of North Pole/South Pole compared with average temperatures in England. Distances</p> <p>Making vehicles - 3D shapes, which shapes fit together? Which shapes are fit for purpose?</p>	<p>Geography - local area. Type of houses pictogram. Compass points and direction - mapwork. Using a ruler to draw routes.</p> <p>Science - measuring and monitoring plant growth.</p> <p>Print making - pattern and shape</p> <p>DT - Making salads. Measuring ingredients</p>	<p>Cooking - making ice cream or other seaside snacks, measuring ingredients.</p>



Year 1 - Nrich

This is an approximate guide. More activities can be included but those listed below are the minimum.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p style="text-align: center;">Place Value</p> <p>Counting (making lines) Counting to 6 Number recognition, 1:1 correspondence and counting Eightness of 8 1:1 correspondence</p>	<p>2,4,6,8 calculations</p> <p style="text-align: center;">Addition and Subtraction</p> <p>Recognising numbers and adding Bonds to 10 Adding within 10 Pairs of numbers to make 10, 11, 12, 13 Difference</p> <p style="text-align: center;">Shape</p> <p>Shape and size Squares Overlapping shapes Shape reasoning Shape prediction</p>	<p style="text-align: center;">Addition and Subtraction</p> <p>Adding within 20 Adding with 20 #2 Adding within 20 #3 Addition and direction</p> <p>Always, sometimes, never (relevant in many areas)</p>	<p style="text-align: center;">Counting/ multiples</p> <p>Biscuit decorations - patterns with counting</p> <p style="text-align: center;">Addition and Subtraction</p> <p>Capacity</p>	<p style="text-align: center;">Multiples</p> <p>Multiples of 2 and 5</p>	<p style="text-align: center;">Time</p> <p>time</p>