

# EYFS, KS1 and KS2 curriculum overview SGS Pegasus

## How to use this document

F/S targets come from development matters which can be found by following the link. [Development matters](#)

Be certain that you are familiar with the sections Features of 'effective practice' - pg7-11 and 'Mathematics' pg84-98

The resources from the White rose scheme of learning should also be utilised. [EYFS white rose maths](#)

**Future aim - we will work towards using the mastering number project to supplement security of early number development.**

F/S				
<p>Taken from Development matters ( Sept 2021) <a href="#">Development matters</a></p>	<p><b>Number and place value</b></p> <p>Say one number for each item in order 1,2,3,4,5</p> <p>Know that the last number reached when counting a small set of objects tell you how many there are in total.</p> <p>Develop fast recognition of up to 3 objects without having to count them individually (subitising).</p> <p><b>Number fluency</b></p> <p>Recite numbers past 5</p> <p>Link numerals and amounts for example showing the right number of objects to match the numeral up to 5</p>	<p><b>Number fluency</b></p> <p>Recite numbers past 5</p> <p>Link numerals and amounts for example showing the right number of objects to match the numeral up to 5</p> <p>Experiment with their own symbols and marks as well as numerals</p> <p>Show finger numbers up to 5</p> <p><b>Addition and subtraction</b></p> <p>Solve real world mathematical problems with numbers up to 5</p>	<p><b>Geometry</b></p> <p>Talk about and explore 2d and 3d shapes e.g. circles, cuboids</p> <p>Using informal and maths language, sides, corners, straight, flat and round</p> <p>Talk about and identify the patterns around them, for example stripes on clothes, designs on rugs</p> <p>Make comparisons between objects relating to size, length, weight and capacity</p>	

KS1 - KS2

Ready-to-progress criteria strands	Code
Number and place value	<b>NPV</b>
Number facts	<b>NF</b>
Addition and subtraction	<b>AS</b>
Multiplication and division	<b>MD</b>
Fractions	<b>F</b>
Geometry	<b>G</b>

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NPV	<b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.		<b>3NPV-1</b> Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.	<b>4NPV-1</b> Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.	<b>5NPV-1</b> Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.	<b>6NPV-1</b> Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).
		<b>2NPV-1</b> Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.	<b>3NPV-2</b> Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.	<b>4NPV-2</b> Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.	<b>5NPV-2</b> Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.	<b>6NPV-2</b> Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.
	<b>1NPV-2</b> Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =.	<b>2NPV-2</b> Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.	<b>3NPV-3</b> Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.	<b>4NPV-3</b> Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.	<b>5NPV-3</b> Reason about the location of any number with up to 2 decimal places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	<b>6NPV-3</b> Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.

RtP criteria are based on the government guidance June 2020 [DFE guidance maths June 2020](#) it highlights ready to progress criteria across 6 areas.

Within the guidance document strands are tracked across year groups  
This will enable us to scaffold the learning of those currently working below the class attainment level, towards the whole class outcomes and address gaps in learning.

Year 1	Autumn	Term 1 and 2
Overview	Numbers to 10 <b>1NPV-1 1NPV-2</b> Part-part whole within 10 <b>1AS-1 1-AS-2</b> Addition and subtraction within 10 <b>1NF-1 1-AS-1</b> Number to 20 <b>1NPV-1 1-NPV2</b>	

RTP focus  
[exemplification-of-ready-to-progress-criteria 79 powerpoints by topic and year group](#)

By topic

Number and place value (Complete)	Number facts (Complete)	Addition and subtraction (Complete)
Multiplication and division (Complete)	Fractions (Complete)	Geometry (Complete)

By year

Year 1	Year 2	Year 3
Year 4	Year 5	Year 6

The names in the overview of the SGS document link directly to the names of the White rose schemes of learning and will direct you towards resources which will support in teaching and assessing.

each exemplification point is supported by exemplification power points which are organised by strand and by year group. These documents can be used hand in hand with the government guidance document select the one that you are reviewing with the class

NCETM spine PD materials	<b>Place value</b>
	<p><a href="#">1.1</a>, comparison of quantities and measures  <a href="#">1.2</a>, Introducing 'whole' and 'part': part-part-whole  <a href="#">1.3</a>, Composition of numbers : 0-5  <a href="#">1.4</a>, Composition of numbers:0-6  <a href="#">1.5</a>, Additive structures: Introduction to aggregation and partitioning  <a href="#">1.6</a>, Additive structures: introduction to augmentation and reduction  <a href="#">1.7</a>, Addition and subtraction: strategies within 10  <a href="#">1.8</a>, Composition of numbers: multiples of 10 up to 100  <a href="#">1.9</a>, Composition of numbers 20-100  <a href="#">1.10</a> Composition of numbers 11-19</p> <p><b>Multiplication and division</b></p> <p><a href="#">2.1</a> Counting , unitising and coins</p>

To support professional knowledge and development, The NCETM PD materials have been organised by year groups and links have been provided for each area/concept which link to the RtP (ready to progress) points for each year group.  
**NB: not everything is covered in the PD materials as it is in 3 sections**  
**Place value, addition and subtraction.**  
**Multiplication and division**  
**Fractions**

**Summary of aims-**

- We teach a **prioritised curriculum** so that children have the time and space to become secure with key concepts in learning mathematic.
- The key points in our learning are taken from the **DfE guidance materials** of June 2020
- We use **RtP criteria and PowerPoints** and the **government guidance** alongside resources from the **White Rose scheme of learning** the to support a small step coherent journey in the teaching learning of mathematics.
- Representation and variation are given precedence in our teaching to ensure students are able to be flexible in their application of the mathematics that they have learned.
- We use stem sentences and sentence stems widely to support our children to develop the language to explain and support their understanding of mathematical concepts.
- Wherever possible, the maths that we teach will be given real world context to enable students to make cross curricular links and see the real-world application of their skills.
- In support of professional development teachers will have linked access to the NCETM professional development spine materials.

**Money and measure** have been removed from the steps however there is an expectation that links will be made with money and measure when teaching the four operations, as we support our students not only to complete mathematical processes but also apply them to real situations.

**Statistic** targets for each year group should be met in science lessons as they review information in a meaningful way linked to their topics

**Position and direction** should be accessed through PE lessons

**Time** should be taught through a little and often approach through started and noticing times of the day.

Year 1	Autumn Term 1 and 2	Spring Term 3 and 4	Summer Term 5 and 6	Notes
Overview	Numbers to 10 <b>1NPV-1 1NPV-2</b> Part-part whole within 10 <b>1AS-1 1-AS-2</b> Addition and subtraction within 10 <b>1NF-1 1-AS-1</b> Number to 20 <b>1NPV-1 1-NPV2</b>	Addition within 20 <b>1AS-2</b> Subtraction within 20 <b>1AS-2</b> Numbers to 50 <b>1NPV-1 1NF-2 1AS-2</b>	Multiplication <b>1NF-2</b> Numbers to 100 <b>1NPV-1</b> 2D and 3D shapes <b>1G-1 1G-2</b>  <b>Applying skills to length weight and height</b>	Learning to tell the time will be taught across the 3 terms and with a little and often drip feed approach. <b>Other than skip counting we will not cover multiplication in the year 1 curriculum</b>
RTP focus  <a href="#">exemplification-of-ready-to-progress-criteria 79 powerpoints by topic and year group</a>	<ul style="list-style-type: none"> <li>• <b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.</li> <li>• <b>1 NPV-2</b> Reason about the location of numbers to 20 within the linear number system, including comparing using &lt; &gt; and =</li> <li>• <b>1AS-1</b> Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.</li> <li>• <b>1AS-2</b> Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.</li> <li>• <b>1NF-1</b> Develop fluency in addition and subtraction facts within 10.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>1AS-2</b> Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.</li> <li>• <b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.</li> <li>• <b>1NF-2</b> Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.</li> <li>• <b>1AS-2</b> Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts</li> </ul>	<ul style="list-style-type: none"> <li>• <b>1NF-2</b> Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.</li> <li>• <b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.</li> <li>• <b>1G-1</b> Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.</li> <li>• <b>1G-2</b> Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.</li> </ul>	

NCETM spine  
PD materials

**Place value**

**1.1**, comparison of quantities and measures

**1.2**, Introducing 'whole' and 'part': part-part-whole

**1.3**, Composition of numbers : 0-5

**1.4**, Composition of numbers:0-6

**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

**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

**Multiplication and division**

**2.1** Counting , unitising and coins

Year 2	Autumn Term 1 and 2	Spring Term 3 and 4	Summer Term 5 and 6	Notes
Overview	Numbers to 100 <b>2NPV-1 2NPV-2</b> Addition and subtraction <b>2NF-1 2AS-1 2AS-2 2AS-3 2AS-4</b>	Multiplication and division <b>2MD-1 2MD-2</b> Properties of shape <b>2G-1</b>	Problem solving and efficient methods <b>2AS-4 2MD-2</b>  <b>Applying skills to length weight and height also temperature</b>	Learning to tell the time will be taught across the 3 terms and with a little and often drip feed approach. statistics will be covered across the rest of the curriculum in context e.g. in science.
RTP focus  <a href="#">exemplification-of-ready-to-progress-criteria 79 powerpoints by topic and year group</a>	<ul style="list-style-type: none"> <li>• <b>2NPV-1</b> Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.</li> <li>• <b>2NPV-2</b> Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.</li> <li>• <b>2NF-1</b> Secure fluency in addition and subtraction facts within 10, through continued practice.</li> <li>• <b>2AS-1</b> Add and subtract across 10.</li> <li>• <b>2AS-2</b> Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".</li> <li>• <b>2AS-3</b> Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.</li> <li>• <b>2AS-4</b> Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>2MD-1</b> Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.</li> <li>• <b>2MD-2</b> Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).</li> <li>• <b>1AS-1</b> Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.</li> <li>• <b>2G-1</b> Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>2AS-4</b> Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.</li> <li>• <b>2MD-2</b> Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).</li> </ul>	<p>By the end of this year students should have rapid recall of addition and subtraction facts within 20 particularly those which cross the tens boundary.</p>

NCETM spine  
PD materials

### **Place value, addition and subtraction**

**1.11**, Addition and subtraction: bridging 10

**1.12**, Subtraction as difference

**1.13**, Addition and subtraction: two-digit and single-digit numbers

**1.14**, Addition and subtraction: two-digit numbers and multiples of ten

**1.15**, Addition: two-digit and 2 two-digit numbers

**1.16** Subtraction: two-digit and two-digit numbers

### **Multiplication and division**

**2.2**, Structures: multiplication and representing equal groups

**2.3**, Times tables: groups of two and commutativity (part1)

**2.4**, Times tables groups of 10 and 5, and factors of 0 and 1

**2.5**, Commutativity (part 2), doubling and halving

**2.6** Structures: quotitive and partitive division

(Quotative division is When dividing a number into groups of. What we want to know = how many groups. Partitive division is When dividing a number into a known number of groups. What we want to know = how many is in each group)

Year 3	Autumn Term 1 and 2	Spring Term 3 and 4	Summer Term 5 and 6	Notes
Overview	Place value <b>3NPV-1 3NPV-2 3NPV-3 3NPV-4</b> Addition and subtraction <b>3NF-1 3NF-3</b> <b>3AS-1 3AS-2 3AS-3</b>	Multiplication and division <b>3NPV-4 3NF-2 3NF-3</b> <b>3MD-1</b>	Fractions <b>3F-1 3F-2 3F-3 3F-4</b> Geometry <b>3G-1 3G-2</b>	Learning to tell the time will be taught across the 3 terms and with a little and often drip feed approach. statistics will be covered across the rest of the curriculum in context e.g. in science. <b>This is the first year that fractions will be introduced</b>
RTP focus <a href="#">exemplification-of-ready-to-progress-criteria 79 powerpoints by topic and year group</a>	<ul style="list-style-type: none"> <li>• <b>3NPV-1</b> Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.</li> <li>• <b>3NPV-2</b> Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.</li> <li>• <b>3NPV-3</b> Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.</li> <li>• <b>3NPV-4</b> Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.</li> </ul> <p><b>3NF-1</b> Secure fluency in addition and subtraction facts that bridge 10, through continued practice.</p> <ul style="list-style-type: none"> <li>• <b>3NF-3</b> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).</li> <li>• <b>3AS-1</b> Calculate complements to 100.</li> <li>• <b>3AS-2</b> Add and subtract up to three-digit numbers using columnar methods.</li> <li>• <b>3AS-3</b> Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of</li> </ul>	<ul style="list-style-type: none"> <li>• <b>3NPV-4</b> Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.</li> <li>• <b>3NF-2</b> Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.</li> <li>• <b>3NF-3</b> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).</li> <li>• <b>3MD-1</b> Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division..</li> </ul>	<ul style="list-style-type: none"> <li>• <b>3F-1</b> Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.</li> <li>• <b>3F-2</b> Find unit fractions of quantities using known division facts (multiplication tables fluency).</li> <li>• <b>3F-3</b> Reason about the location of any fraction within 1 in the linear number system.</li> <li>• <b>3F-4</b> Add and subtract fractions with the same denominator, within 1.</li> <li>• <b>5NPV-4</b> Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts..</li> <li>• <b>3G-1</b> Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.</li> <li>• <b>3G-2</b> Draw polygons by joining marked points, and identify parallel and perpendicular sides.</li> </ul>	



	addition, and understand the related property for subtraction.			
NCETM spine PD materials	<p><b><u>Place value, addition and subtraction</u></b></p> <p><b><u>1.17</u></b>, Compensation and calculation: 100 and bridging 100</p> <p><b><u>1.18</u></b>, Compensation and calculation: three digit numbers</p> <p><b><u>1.19</u></b>, Securing mental strategies: calculation up to 999</p> <p><b><u>1.20</u></b>, Algorithms :column addition</p> <p><b><u>1.21</u></b> Algorithms: column subtraction</p> <p><b><u>Multiplication and division</u></b></p> <p><b><u>2.7</u></b>, Times tables:2, 4 and 8 and the relationship between them</p> <p><b><u>2.8</u></b>, Times tables 3,6 and 9 and the relationships between them</p> <p><b><u>2.9</u></b> Times tables: 7 and patterns within/across times tables.</p> <p><b><u>Fractions</u></b></p> <p><b><u>3.0</u></b>, Guidance for teaching of fractions in KS1 (this will be used from year 3)</p> <p><b><u>3.1</u></b>, Preparing for fractions: the part -whole relationship</p> <p><b><u>3.2</u></b>, Unit fractions: identifying, representing and comparing</p> <p><b><u>3.3</u></b>, Non-unit fractions: identifying, representing and comparing</p> <p><b><u>3.4</u></b> Adding and subtracting within one whole</p>			

Year 4	Autumn Term 1 and 2	Spring Term 3 and 4	Summer Term 5 and 6	Notes
Overview	Place value <b>4NPV-1 4NPV-2 4NPV-3 4NPV-4</b> Addition and subtraction <b>4NF-3</b>	Place value <b>4NPV-1 4NPV-2 4NPV-3 4NPV-4</b> Addition and subtraction <b>4NF-3</b>	Fractions <b>4F-1 4F-2 4F-3</b> Geometry inc perimeter, angles in 2D shape, position and direction <b>4G-1 4G-2 4G-3</b>	During this year students are expected to have rapid recall of multiplication facts up to 12x12 - It is essential that where this is not the case steps are taken to ensure that this is addressed. <b>We will not cover decimal numbers in this year group</b>
RTP focus <a href="#">exemplification-of-ready-to-progress-criteria 79</a> <a href="#">powerpoints by topic and year group</a>	<ul style="list-style-type: none"> <li>• <b>4NPV-1</b> Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.</li> <li>• <b>4NPV-2</b> Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and nonstandard partitioning.</li> <li>• <b>4NPV-3</b> Reason about the location of any four digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of <b>each</b>.</li> <li>• <b>4NPV-4</b> Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.</li> <li>• <b>4NF-3</b> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100).</li> </ul>	<ul style="list-style-type: none"> <li>• <b>4NF-1</b> Recall multiplication and division facts up to 12 x 12, and recognise products in multiplication tables as multiples of the corresponding number</li> <li>• <b>4MD-1</b> Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.</li> <li>• <b>4NF-2</b> Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.</li> <li>• <b>4NF-3</b> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)</li> <li>• <b>4MD-2</b> Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.</li> <li>• <b>4MD-3</b> Understand and apply the distributive property of multiplication.</li> <li>• <b>5NF-1</b> Secure fluency in multiplication table facts, and</li> </ul>	<ul style="list-style-type: none"> <li>• <b>4F-1</b> Reason about the location of mixed numbers in the linear number system.</li> <li>• <b>4F-2</b> Convert mixed numbers to improper fractions and vice versa.</li> <li>• <b>4F-3</b> Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers</li> <li>• <b>5F-1</b> Find non-unit fractions of quantities.</li> <li>• <b>4G-1</b> Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.</li> <li>• <b>4G-2</b> Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.</li> <li>• <b>4G-3</b> Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.</li> </ul>	

		corresponding division facts, through continued practice.		
NCETM spine PD materials	<p><b><u>Place value, addition and subtraction</u></b></p> <p><b><u>1.22</u></b>, compensation and calculation: 1,000 and four digit numbers</p> <p><b><u>1.23</u></b>, Compensation an calculation: tenths</p> <p><b><u>1.24</u></b>, Compensation and calculation: hundredths and thousandths</p> <p><b><u>1.25</u></b> Addition and subtraction: money</p> <p><b><u>Multiplication and division</u></b></p> <p><b><u>2.10</u></b>, Connecting multiplication and division, the distributive law</p> <p><b><u>2.11</u></b>, Times tables: 11 and 12</p> <p><b><u>2.12</u></b>, Division with remainders</p> <p><b><u>2.13</u></b>, Calculation: multiplying and dividing by 10 or 100</p> <p><b><u>2.14</u></b>, Multiplication: partitioning leading to short multiplication</p> <p><b><u>2.15</u></b>, Division: partitioning leading to short division</p> <p><b><u>2.16</u></b>, Multiplicative contexts: area and perimeter</p> <p><b><u>2.17</u></b> Structures: using measures and comparison to understand scaling</p> <p><b><u>Fractions</u></b></p> <p><b><u>3.5</u></b>, Working across one whole: improper fractions and mixed numbers</p> <p><b><u>3.6</u></b> Multiplying whole numbers and fractions</p>			

Year 5	Autumn Term 1 and 2	Spring Term 3 and 4	Summer Term 5 and 6	Notes
Overview	Place value Recap <b>4NPV-1 4NPV-2 4NPV-3 4NPV-4</b> Multiplication and division <b>5MD-1 5MD-2 5MD-3 5MD-4 5NF-2</b>	Fractions, decimals and percentages <b>5F-1 5F-2 5F-3 5NPV-1 5NPV-2 5F-3</b>	Geometry properties of shape <b>5G-1 5G-2</b> Measure converting units <b>5NPV-5</b>	<b>This is the first year that we will formally introduce decimals and percentages as well as tracking measurement and conversion. It may be useful to refer to some of the decimals work from year 4 WR scheme of learning prior to approaching year 5 work.</b> Ensure that ample time is allocated to these areas.
RTP focus <a href="#">exemplification-of-ready-to-progress-criteria 79 powerpoints by topic and year group</a>	<ul style="list-style-type: none"> <li>• <b>5MD-1</b> Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.</li> <li>• <b>5MD-2</b> Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.</li> <li>• <b>5MD-3</b> Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.</li> <li>• <b>5MD-4</b> Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.</li> <li>• <b>5NF-2</b> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).</li> </ul>	<ul style="list-style-type: none"> <li>• <b>5F-2</b> Find equivalent fractions and understand that they have the same value and the same position in the linear number system.</li> <li>• <b>5NPV-1</b> Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.</li> <li>• <b>5NPV-2</b> Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.</li> <li>• <b>5F-3</b> Recall decimal fraction equivalents for <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math> and <math>\frac{1}{10}</math>, and for multiples of these proper fractions.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>5G-1</b> Compare angles, estimate and measure angles in degrees (<math>^{\circ}</math>) and draw angles of a given size.</li> <li>• <b>5G-2</b> Compare areas and calculate the area of rectangles (including squares) using standard units.</li> <li>• <b>5NPV-5</b> Convert between units of measure, including using common decimals and fractions.</li> </ul>	<b>Though there are no RTP for Addition and subtraction, it is important to ensure that students are familiar with and able to use formal written methods of calculation for the four operations along with having fluency in multiplication and division facts. where this is not the case</b>

				ensure that these areas are addressed.
NCETM spine PD materials	<p><b><u>Place value, addition and subtraction</u></b></p> <p><b><u>1.26</u></b>, Compensation and calculation: multiples of 1,000</p> <p><b><u>1.27</u></b>, Negative numbers: counting, comparing and calculating</p> <p><b><u>1.28</u></b>, Common structures and part-part-whole relationships</p> <p><b><u>1.29</u></b> Using equivalence and the compensation property to calculate</p> <p><b><u>Multiplication and division</u></b></p> <p><b><u>2.18</u></b>, Using equivalence to calculate</p> <p><b><u>2.19</u></b> , Calculation: multiply and divide decimal fractions by whole numbers</p> <p><b><u>2.20</u></b>, Multiplication with three factors and volume</p> <p><b><u>2.21</u></b>, Factors, multiples, prime numbers and composite numbers</p> <p><b><u>2.22</u></b> Combining multiplication with addition and subtraction</p> <p><b><u>Fractions</u></b></p> <p><b><u>3.7</u></b>, Finding equivalent fractions and simplifying fractions</p> <p><b><u>3.8</u></b> Common denomination: more adding and subtracting</p>			

Year 6	Autumn Term 1 and 2	Spring Term 3 and 4	Summer Term 5 and 6	Notes
Overview	Place Value <b>6NPV-1 6NPV-2 6NPV-3 6NPV-4</b> The 4 operations <b>6AS/MD-1 6AS/MD-2</b>	Fractions <b>6F-1 6F-2 6F-3 4NPV-4</b> Decimals and percentages <b>6NPV-1</b> Algebra <b>6AS/MD-4</b> Measure (imperial and metric units) <b>6NPV-4</b> Perimeter area and volume <b>6G-1</b> Ratio and proportion <b>6AS/MD-3</b>	Geometry <b>6G-1</b> Statistics <b>6NPV-4</b>	This will be the first time that ratio is taught and the first point that students are introduced to the language of algebra, though they will have been using it's principles prior to this point
RTP focus <a href="#">exemplification-of-ready-to-progress-criteria 79 powerpoints by topic and year group</a>	<ul style="list-style-type: none"> <li>• <b>6NPV-1</b> Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).</li> <li>• <b>6NPV-2</b> Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.</li> <li>• <b>6NPV-3</b> Reason about the location of any number up to 10</li> </ul>	<ul style="list-style-type: none"> <li>• <b>6F-1</b> Recognise when fractions can be simplified, and use common factors to simplify fractions.</li> <li>• <b>6F-2</b> Express fractions in a common denominator and use this to compare fractions that are similar in value.</li> <li>• <b>6F-3</b> Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy. Textbook 6A Unit 5: Fractions (2)</li> <li>• <b>6NPV-4</b> Divide powers of 10, from 1 hundredth to 10 million,</li> </ul>	<ul style="list-style-type: none"> <li>• <b>6G-1</b> Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.</li> <li>• <b>6NPV-4</b> Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.</li> </ul>	

	<p>million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.</p> <ul style="list-style-type: none"><li>• <b>6NPV-4</b> Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.</li><li>• <b>6AS/MD-1</b> Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).</li><li>• <b>6AS/MD-2</b> Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.</li></ul>	<p>into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.</p> <ul style="list-style-type: none"><li>• <b>6AS/MD-4</b> Solve problems with 2 unknowns.</li><li>• <b>6NPV-4</b> Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.</li><li>• <b>6G-1</b> Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.</li><li>• <b>6AS/MD-3</b> Solve problems involving ratio relationships.</li></ul>		
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NCETM spine  
PD materials

**Place value, addition and subtraction**

**1.30**, Compensation and calculation: numbers up to 10,000,000

**1.31** Problems with two unknowns

**Multiplication and division**

**2.23**, Multiplication strategies for larger numbers and long multiplication

**2.24**, Division: dividing by two digit divisor

**2.25**, Using compensation to calculate

**2.26**, Mean average and equal shares

**2.27**, Scale factors, ration and proportional reasoning

**2.28**, Combining division with addition and subtraction

**2.29**, Decimal place-value knowledge, multiplication and division

**2.30** Multiplicative contexts: are and perimeter 2

**Fractions**

**3.9**, Multiplying fractions and dividing fractions by a whole number

**3.10** Linking fractions, decimals and percentages