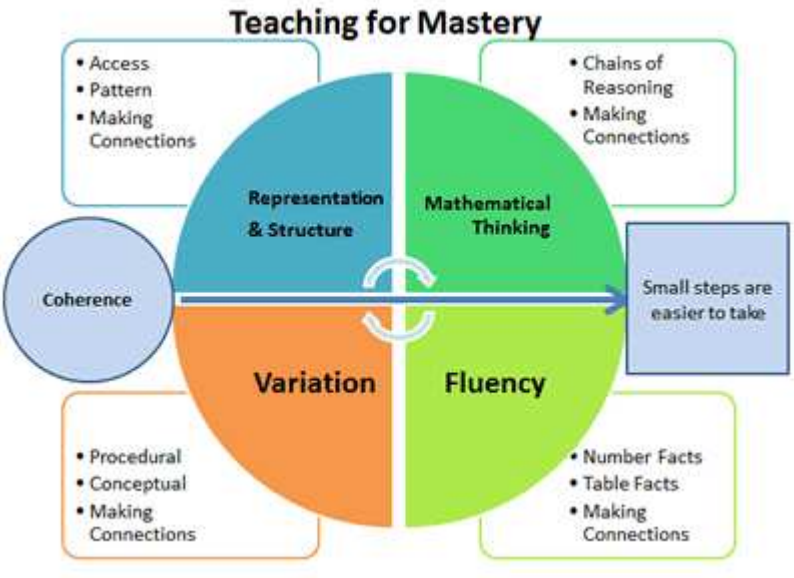
Maths at Victoria Primary Academy

Creating Learners Without Limits

Mastery in Mathematics



Mastery in mathematics is underpinned by the five big ideas: coherence, representation and structure, mathematical thinking, variation and fluency.

Coherence

Lessons are broken down into small connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts.

Representation and Structure

Representations used in lessons expose the mathematical structure being taught, the aim being that students can do the maths without recourse to the representation

Mathematical Thinking

If taught ideas are to be understood deeply, they must not merely be passively received but must be worked on by the student: thought about, reasoned with and discussed with others

Fluency

Quick and efficient recall of facts and procedures and the flexibility to move between different contexts and representations of mathematics

Variation

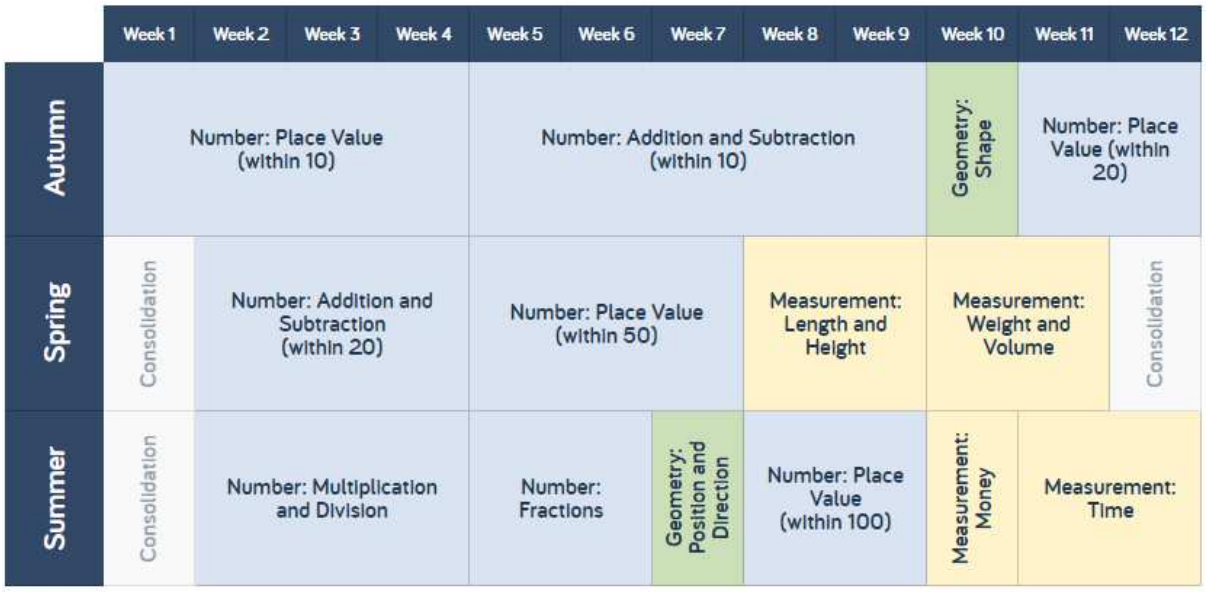
Variation is twofold. It is firstly about how the teacher represents the concept being taught, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding. It is also about the sequencing of the episodes, activities and exercises used within a lesson and follow up practice, paying attention to what is kept the same and what changes, to connect the mathematics and draw attention to mathematical relationships and structure.

The Five Big Ideas were first published by the NCETM 2017

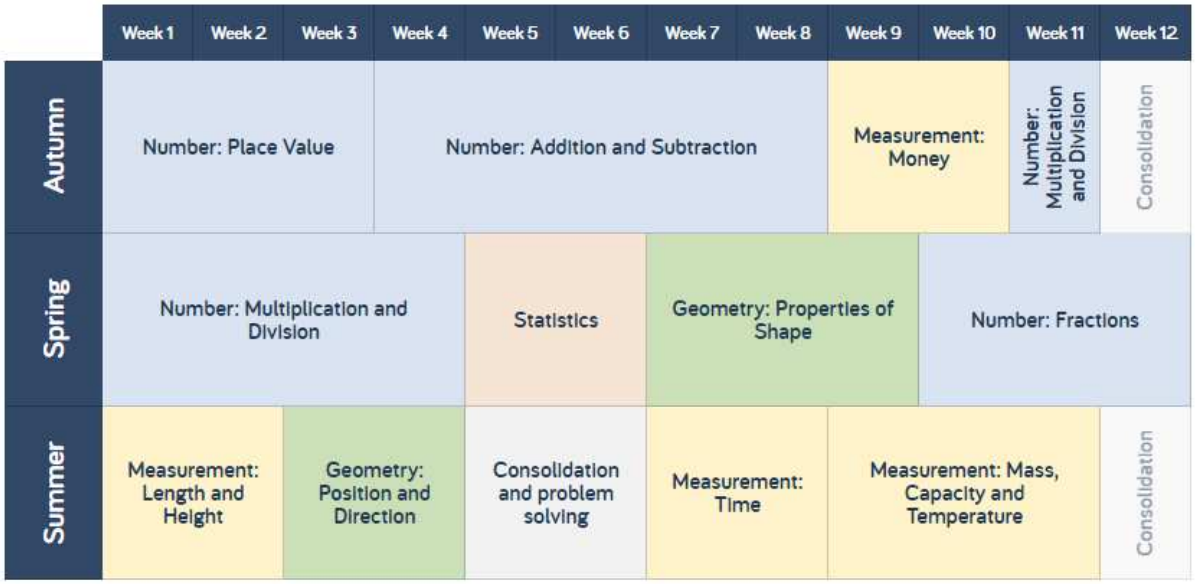
Curriculum map

We use the White Rose long term map to support our planning and to ensure coverage. The maps for each year group have been adapted to take into account, learning missed due to Covid-19.

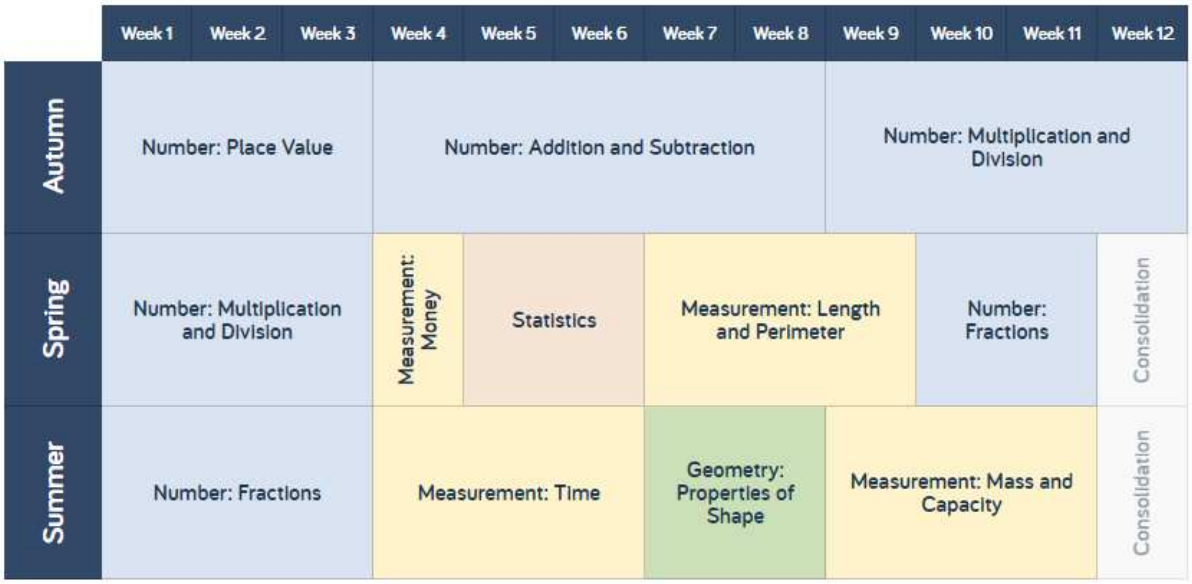
Year 1



Year 2


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
Number: Place Value
Number: Addition and Subtraction
Measurement: Money
Number: Multiplication and Division
Consolidation
Spring
Number: Multiplication and Division
Statistics
Geometry: Properties of Shape
Number: Fractions
Summer
Measurement: Length and Height
Geometry: Position and Direction
Consolidation and problem solving
Measurement: Time
Measurement: Mass, Capacity and Temperature
Consolidation

Year 3


Week 1
Week 2
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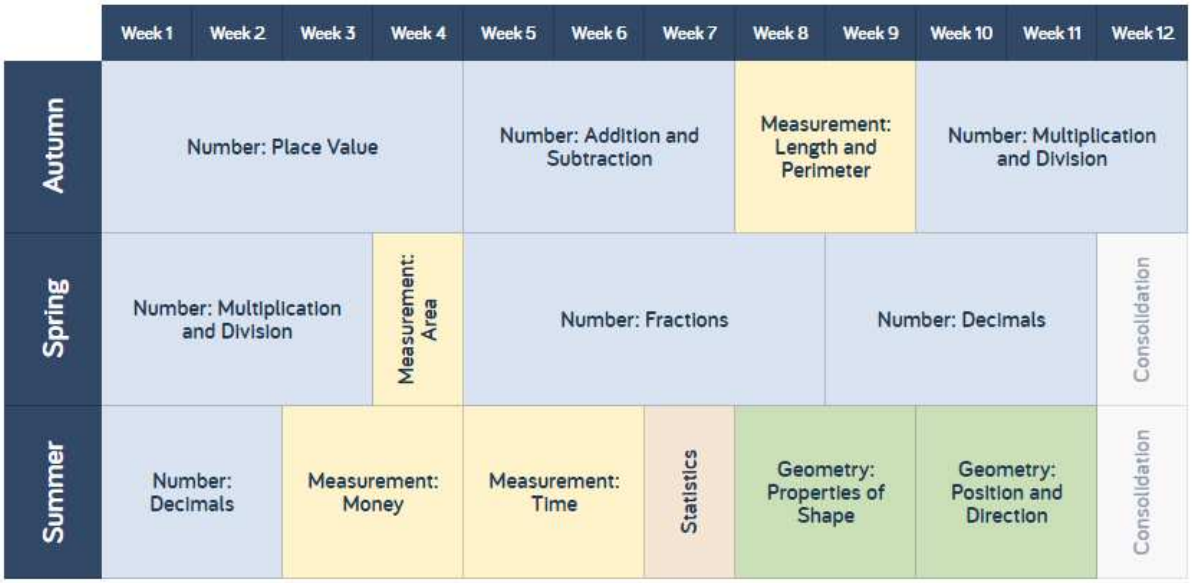
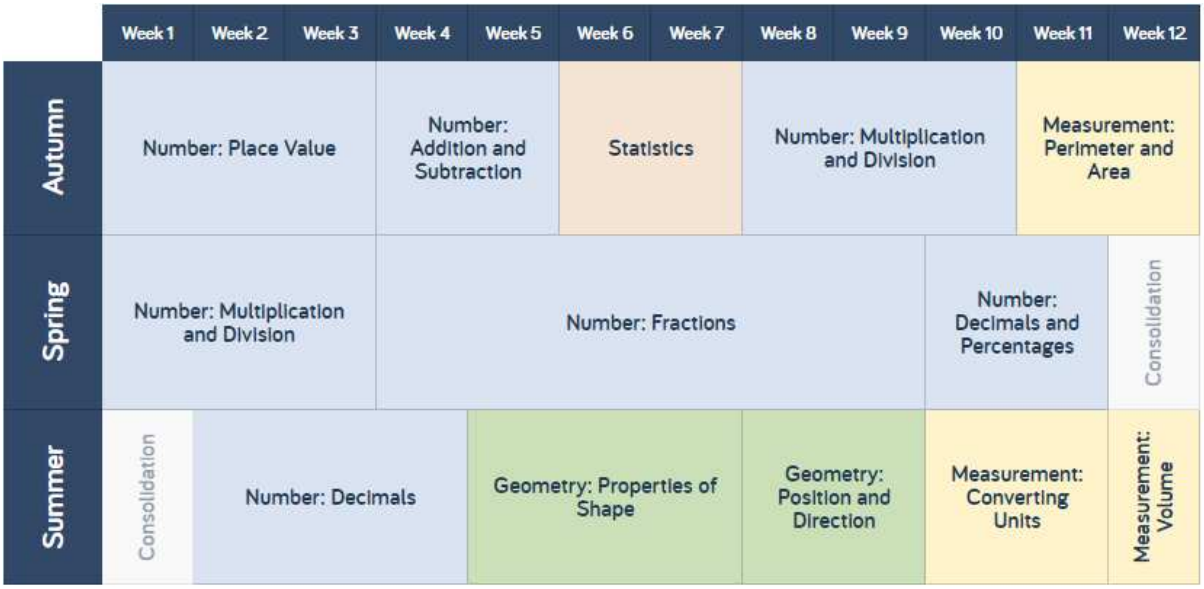
Week 8
Week 9
Week 10
Week 11
Week 12
Autumn
Number: Place Value
Number: Addition and Subtraction
Number: Multiplication and Division
Spring
Number: Multiplication and Division
Measurement: Money
Statistics
Measurement: Length and Perimeter
Number: Fractions
Consolidation
Summer
Number: Fractions
Measurement: Time
Geometry: Properties of Shape
Measurement: Mass and Capacity
Consolidation

Year 4


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
Number: Place Value
Number: Addition and Subtraction
Measurement: Length and Perimeter
Number: Multiplication and Division
Spring
Number: Multiplication and Division
Measurement: Area
Number: Fractions
Number: Decimals
Consolidation
Summer
Number: Decimals
Measurement: Money
Measurement: Time
Statistics
Geometry: Properties of Shape
Geometry: Position and Direction
Consolidation

Year 5


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
Number: Place Value
Number: Addition and Subtraction
Statistics
Number: Multiplication and Division
Measurement: Perimeter and Area
Spring
Number: Multiplication and Division
Number: Fractions
Number: Decimals and Percentages
Consolidation
Summer
Consolidation
Number: Decimals
Geometry: Properties of Shape
Geometry: Position and Direction
Measurement: Converting Units
Measurement: Volume

Year 6

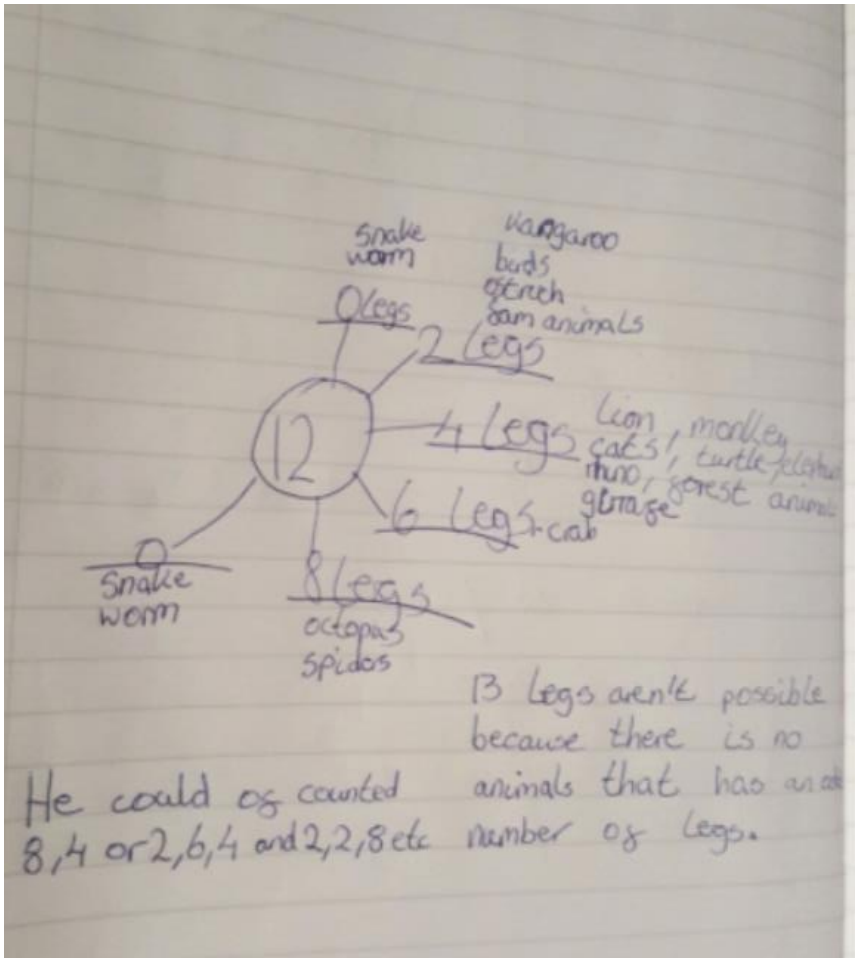
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value		Number: Addition, Subtraction, Multiplication and Division					Number: Fractions				Geometry: Position and Direction
Spring	Number: Decimals		Number: Percentages		Number: Algebra		Measurement: Converting Units	Measurement: Perimeter, Area and Volume		Number: Ratio		Consolidation
Summer	Statistics		Geometry: Properties of Shape			Consolidation and themed projects						

In year 2, children explored 2d shapes.

Year 3 worked together to measure different objects accurately.

During lockdown in the spring term, the whole school took part in a problem solving challenge. Here are some of the solutions sent in:


CAPTAIN AMERICA


Snake worm
Kangaroo birds ostrich farm animals
0 Legs
2 Legs
12
4 Legs
Lion cats, monkey, turtle, elephant rhino, giraffe, forest animals
6 Legs + crab
0
Snake worm
8 Legs
octopus spiders
He could of counted 8,4 or 2,6,4 and 2,2,8 etc
B Legs aren't possible because there is no animals that has an odd number of legs.

Times tables

An important part of mathematics fluency is learning all times tables facts up to 12x12. By the end of year 4, all pupils should know these facts by heart. This will help them immensely as they continue their mathematics learning.

In school, we use tackling tables. This is a card system, where pupils quiz each other to practise and regularly complete a beat your best score quiz. This also includes division facts.

At home, all pupils can practise using TT Rockstars (www.ttrockstars.com). This is a fun games based platform where pupils are automatically given more and more difficult tables to practise.