Spring Scheme of Learning
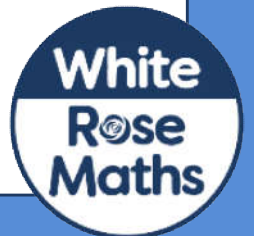
Year 5

#MathsEveryoneCan

2020-21

White Rose Maths

New for 2020/21

2020 will go down in history. The world has changed for all of us.

We want to do as much as we can to support children, teachers, parents and carers in these very uncertain times.

We have amended our schemes for 2020/21 to:

★ highlight key teaching points

★ recap essential content that children may have forgotten

★ flag any content that you might not have covered during the school closures period.

We hope these changes will add further value to the schemes and save you time.
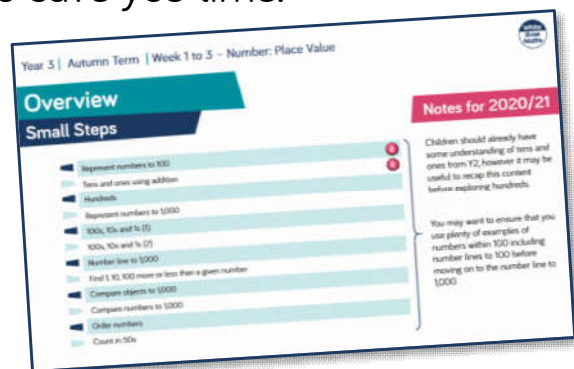
Lesson-by-lesson overviews

We've always been reluctant to produce lesson-by-lesson overviews as every class is individual and has different needs. However, many of you have said that if blended learning becomes a key feature of school life next year, a weekly plan with linked content and videos could be really useful.

As always, we've listened! We've now produced a complete lesson-by-lesson overview for Y1 to Y9 that schools can use or adapt as they choose. Each lesson will be linked to a free-to-use home learning video, and for premium subscribers, a worksheet. This means that you can easily assign work to your class, whether they are working at home or in school.

Inevitably, this lesson-by-lesson structure won't suit everyone, but if it works for you, then please do make use of this resource as much as you wish.

Teaching for Mastery

These overviews are designed to support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the new National Curriculum.

The overviews:

- have number at their heart. A large proportion of time is spent reinforcing number to build competency

- ensure teachers stay in the required key stage and support the ideal of depth before breadth.

- ensure students have the opportunity to stay together as they work through the schemes as a whole group

- provide plenty of opportunities to build reasoning and problem solving elements into the curriculum.

For more guidance on teaching for mastery, visit the NCETM website:

https://www.ncetm.org.uk/resources/47230

Concrete - Pictorial - Abstract

We believe that all children, when introduced to a new concept, should have the opportunity to build competency by taking this approach.

Concrete – children should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial – alongside this children should use pictorial representations. These representations can then be used to help reason and solve problems.

Abstract – both concrete and pictorial representations should support children's understanding of abstract methods.

Need some CPD to develop this approach? Visit www.whiterosemaths.com for find a course right for you.

	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

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Spring - Block 1

Multiplication & Division

Overview

Small Steps

Notes for 2020/21

Multiply 2-digits by 1-digit ®

Multiply 3-digits by 1-digit ®

Multiply 4-digits by 1-digit

Multiply 2-digits (area model)

Multiply 2-digits by 2-digits

Multiply 3-digits by 2-digits

Multiply 4-digits by 2-digits

Divide 2-digits by 1-digit (1) ®

Divide 2-digits by 1-digit (2) ®

Divide 3-digits by 1-digit ®

Divide 4-digits by 1-digit

Divide with remainders

Before moving on to 4-digit multiplication, children may need to work with place value counters to support their understanding, of multiplying by 2- and 3-digit numbers.

The division steps may look similar but this is a difficult concept and children need to spend time exploring partitioning and dividing 2- and 3-digit numbers before working with larger numbers.
In the recap steps they will cover division with remainders using place value counters.

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Fractions

Overview

Small Steps

Notes for 2020/21

What is a fraction?	R
Equivalent fractions (1)	R
Equivalent fractions	
Fractions greater than 1	R
Improper fractions to mixed numbers	
Mixed numbers to improper fractions	
Number sequences	
Compare and order fractions less than 1	
Compare and order fractions greater than 1	
Add and subtract fractions	
Add fractions within 1	
Add 3 or more fractions	
Add fractions	

Children will need to look at different representations of fractions to expose any misconceptions.

They can then move onto a practical exploration of equivalent fractions by folding paper before comparing fractions with drawings and diagrams in these first recap steps.

Year 5 is the first time children explore improper fractions in depth so we have added a recap step from Year 4 where children add fractions to a total greater than one whole.

Overview

Small Steps

Notes for 2020/21

Add mixed numbers

Subtract fractions

Subtract mixed numbers

Subtract – breaking the whole

Subtract 2 mixed numbers

Multiply unit fractions by an integer

Multiply non-unit fractions by an integer

Multiply mixed numbers by integers

Calculate fractions of a quantity   **R**

Fraction of an amount

Using fractions as operators

As children progress through the small steps they use different representations to support their understanding of the abstract.

Before exploring fractions of an amount it may be useful to recap the Year 4 content with practical equipment and pictorial representations to help them see the relationships between the fraction and the whole.

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Decimals & Percentages

Overview

Small Steps

Notes for 2020/21

Decimals up to 2 d.p.

Decimals as fractions (1)

Decimals as fractions (2)

Understand thousandths

Thousandths as decimals

Rounding decimals

Order and compare decimals

Understand percentages

Percentages as fractions and decimals

Equivalent F.D.P.

There are no recap steps here as this is all new learning for Year 5, building on the fractions block.

Children learn that both proper fractions and decimals can be used to represent values between whole numbers.

Rounding builds on earlier work on place value and explores different contexts, including measures.