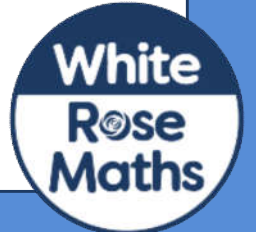


Autumn Scheme of Learning

Year 5

#MathsEveryoneCan

2020-21



New for 2020/21

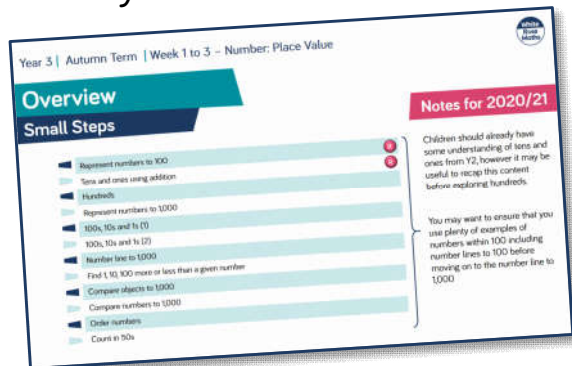
2020 will go down in history. The world has changed for all of us.

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.

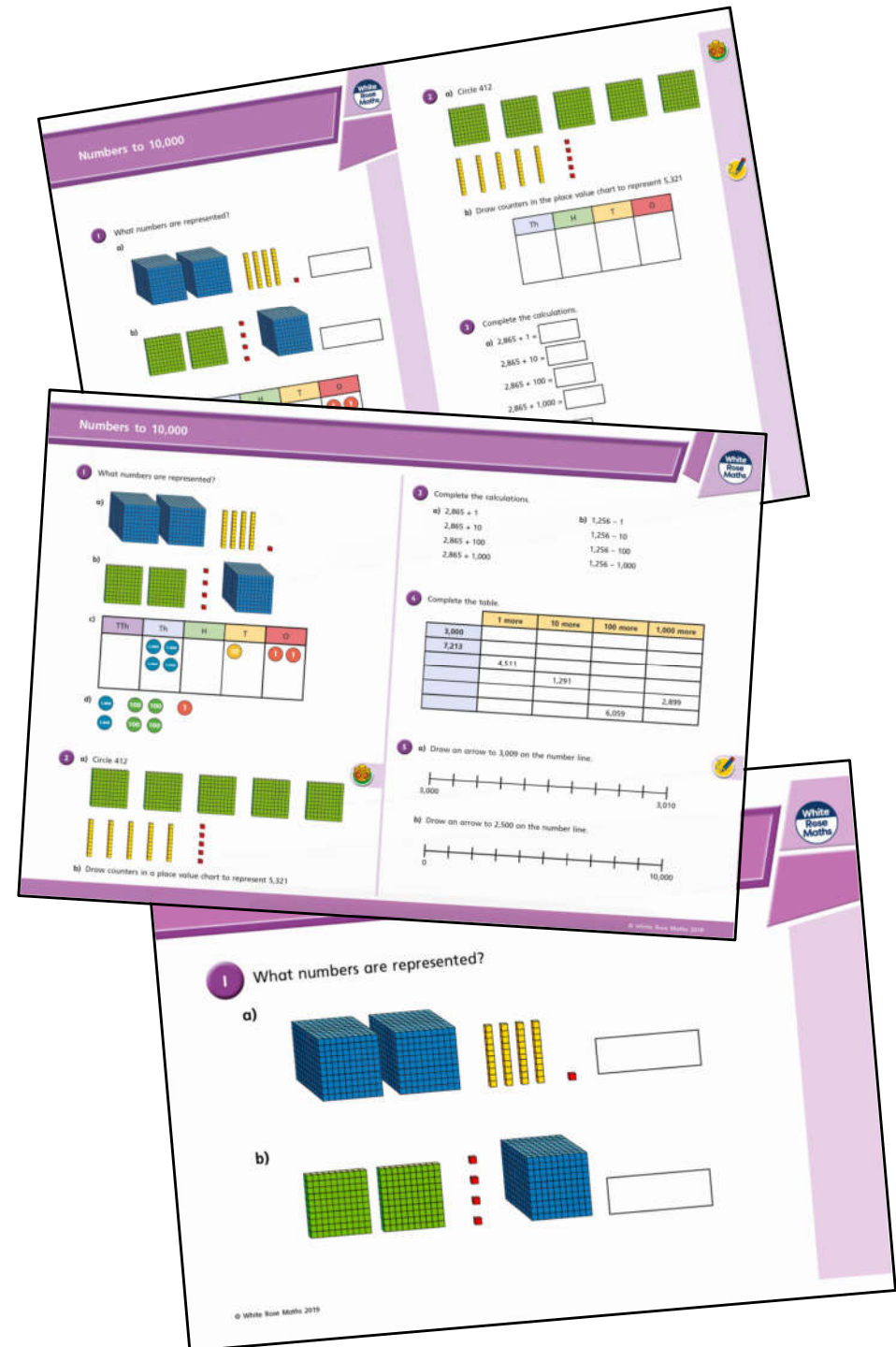
Supporting resources

We have produced supporting resources for every small step from Year 1 to Year 11.

The worksheets are provided in three different formats:

- Write on worksheet – ideal for children to use the ready made models, images and stem sentences.
- Display version – great for schools who want to cut down on photocopying.
- PowerPoint version – one question per slide. Perfect for whole class teaching or mixing questions to make your own bespoke lesson.

For more information visit our online training and resources centre resources.whiterosemaths.com or email us directly at support@whiterosemaths.com



	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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Autumn - Block 1

Place Value

Overview

Small Steps

- ▶ 1000s, 100s, 10s and 1s R
- ▶ Numbers to 10,000
- ▶ Rounding to the nearest 10 R
- ▶ Rounding to the nearest 100 R
- ▶ Round to nearest 10, 100 and 1,000
- ▶ Numbers to 100,000
- ▶ Compare and order numbers to 100,000
- ▶ Round numbers within 100,000
- ▶ Numbers to a million
- ▶ Counting in 10s, 100s, 1,000s, 10,000s, and 100,000s
- ▶ Compare and order numbers to one million
- ▶ Round numbers to one million
- ▶ Negative numbers
- ▶ Roman Numerals to 1,000

Notes for 2020/21

Before exploring numbers to 10,000 ensure that children are secure with 1000s, 100s, 10 and 1s.

You may also find it useful to recap rounding to the nearest 10 and 100 separately before expecting children to round to either 10, 100 and 1,000

Work on Roman Numerals has been moved to the end of the block as we believe it is important for children to be secure with our own number system before exploring another.

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Autumn - Block 2

Addition & Subtraction

Overview

Small Steps

Notes for 2020/21

- ▶ Add two 4-digit numbers - one exchange R
- ▶ Add two 4-digit numbers - more than one exchange R
- ▶ Add whole numbers with more than 4 digits (column method)
- ▶ Subtract two 4-digit numbers - one exchange R
- ▶ Subtract two 4-digit numbers - more than one exchange R
- ▶ Subtract whole numbers with more than 4 digits (column method)
- ▶ Round to estimate and approximate
- ▶ Inverse operations (addition and subtraction)
- ▶ Multi-step addition and subtraction problems

We feel it is important that children have a secure understanding of the column method for addition and subtraction, so we've suggested extra time on these key concepts.

It may be something that children have forgotten.

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Autumn - Block 3

Statistics

Overview

Small Steps

Notes for 2020/21

- Interpret charts R
- Comparison, sum and difference R
- Introduce line graphs R
- Read and interpret line graphs
- Draw line graphs
- Use line graphs to solve problems
- Read and interpret tables
- Two-way tables
- Timetables

Children may have missed learning on statistics in Year 4.

We have included a recap on some of the trickier aspects of the topic such as interpreting charts and comparing results.

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Autumn - Block 4

Multiplication & Division

Overview

Small Steps

Notes for 2020/21

- ▶ Multiples
- ▶ Factors
- ▶ Common factors
- ▶ Prime numbers
- ▶ Square numbers
- ▶ Cube numbers
- ▶ Multiply by 10 R
- ▶ Multiply by 100 R
- ▶ Multiply by 10, 100 and 1,000
- ▶ Divide by 10 R
- ▶ Divide by 100 R
- ▶ Divide by 10, 100 and 1,000
- ▶ Multiples of 10, 100 and 1,000

Multiplying and dividing by 10, 100 and 1,000 can be a difficult topic for children. We have therefore added in recap on this to ensure enough time is devoted to it.

This is an essential skill to master to enable children to be successful later.

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Autumn - Block 5

Perimeter & Area

Overview

Small Steps

Notes for 2020/21

- Measure perimeter
- Perimeter on a grid R
- Perimeter of rectangles R
- Perimeter of rectilinear shapes R
- Calculate perimeter
- Counting squares R
- Area of rectangles
- Area of compound shapes
- Area of irregular shapes

A recap of key learning from Year 4 may be useful here.

It is important that children understand perimeter and area on a grid before moving on to shapes with just side lengths marked.