Autumn Scheme of Learning

Year 3/4

#MathsEveryoneCan

2019-20

White Rose Maths

How to use the mixed-age SOL

In this document, you will find suggestions of how you may structure a progression in learning for a mixed-age class.

Firstly, we have created a yearly overview.

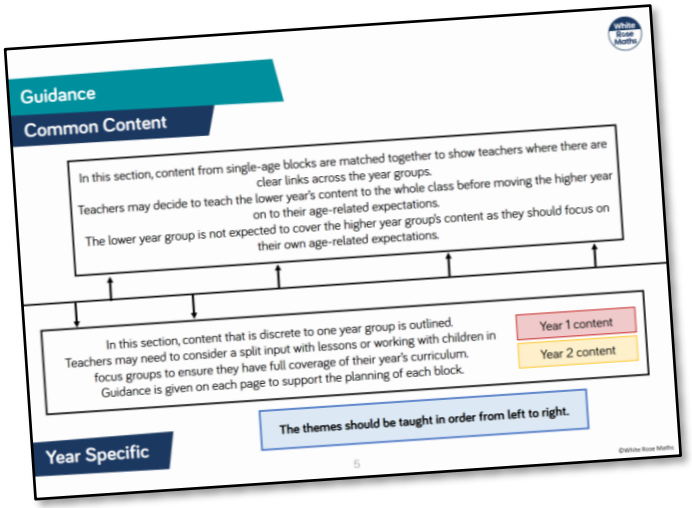
<table>
<tr><th></th><th>Week 1</th><th>Week 2</th><th>Week 3</th><th>Week 4</th><th>Week 5</th><th>Week 6</th><th>Week 7</th><th>Week 8</th><th>Week 9</th><th>Week 10</th><th>Week 11</th><th>Week 12</th></tr>
<tr><td>Autumn</td><td colspan="3">Number: Place Value
Y1 – Numbers to 20
Y2 – Numbers to 100</td><td colspan="5">Number: Addition and Subtraction
Year 1- Numbers within 20 (including recognising money)
Year 2- Numbers within 100 (including money)</td><td colspan="3">Number:
Year 1: Place Value to 50 and Multiplication
Year 2: Multiplication</td></tr>
<tr><td>Spring</td><td colspan="2">Number:
Year 1: Division & consolidation
Year 2: Division</td><td colspan="2">Year 1: Place Value to 100
Year 2: Statistics</td><td>Measurement: Length and Height</td><td colspan="2">Geometry:
Year 1: Shape and Consolidation
Year 2: Properties of Shape</td><td colspan="2">Number:
Year 1: Fractions and Consolidation
Year 2: Fractions</td><td>Consolidation</td></tr>
<tr><td>Summer</td><td>Geometry: Position and Direction</td><td colspan="2">Measurement: Time</td><td colspan="2">Problem solving and efficient methods</td><td colspan="3">Measurement:
Year 1: Weight and Volume
Year 2: Mass, Capacity and Temperature</td><td colspan="3">Consolidation and Investigations</td></tr>
</table>

Each term has 12 weeks of learning. We are aware that some terms are longer and shorter than others, so teachers may adapt the overview to fit their term dates.

The overview shows how the content has been matched up over the year to support teachers in teaching similar concepts to both year groups. Where this is not possible, it is clearly indicated on the overview with 2 separate blocks.

For each block of learning, we have grouped the small steps into themes that have similar content. Within these themes, we list the corresponding small steps from one or both year groups. Teachers can then use the single-age schemes to access the guidance on each small step listed within each theme.

The themes are organised into common content (above the line) and year specific content (below the line). Moving from left to right, the arrows on the line suggest the order to teach the themes.



How to use the mixed-age SOL

Here is an example of one of the themes from the Year 1/2 mixed-age guidance.

Subtraction

Year 1 (Aut B2, Spr B1)
- How many left? (1)
- How many left? (2)
- Counting back
- Subtraction - not crossing 10
- Subtraction - crossing 10 (1)
- Subtraction - crossing 10 (2)

Year 2 (Aut B2, B3)
- Subtract 1-digit from 2-digits
- Subtract with 2-digits (1)
- Subtract with 2-digits (2)
- Find change - money

In order to create a more coherent journey for mixed-age classes, we have re-ordered some of the single-age steps and combined some blocks of learning e.g. Money is covered within Addition and Subtraction.

The bullet points are the names of the small steps from the single-age SOL. We have referenced where the steps are from at the top of each theme e.g. Aut B2 means Autumn term, Block 2. Teachers will need to access both of the single-age SOLs from our website together with this mixed-age guidance in order to plan their learning.

Points to consider

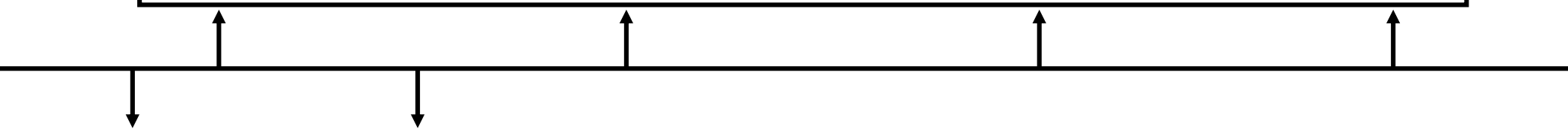
- Use the mixed-age schemes to see where similar skills from both year groups can be taught together. Learning can then be differentiated through the questions on the single-age small steps so both year groups are focusing on their year group content.
- When there is year group specific content, consider teaching in split inputs to classes. This will depend on support in class and may need to be done through focus groups .
- On each of the block overview pages, we have described the key learning in each block and have given suggestions as to how the themes could be approached for each year group.
- We are fully aware that every class is different and the logistics of mixed-age classes can be tricky. We hope that our mixed-age SOL can help teachers to start to draw learning together.

	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				Number: Multiplication and Division			
Spring	Number: Multiplication and Division		Measurement: Length, Perimeter and Area		Number: Fractions				Y3: Measurement: Mass and Capacity			Consolidation
									Y4: Number: Decimals			
Summer	Number: Decimals (including Money)			Measurement: Time	Statistics		Geometry: Properties of Shape (including Y4 Position and Direction)					Consolidation

Guidance

Common Content

In this section, content from single-age blocks are matched together to show teachers where there are clear links across the year groups.
Teachers may decide to teach the lower year's content to the whole class before moving the higher year on to their age-related expectations.
The lower year group is not expected to cover the higher year group's content as they should focus on their own age-related expectations.



In this section, content that is discrete to one year group is outlined.
Teachers may need to consider a split input with lessons or working with children in focus groups to ensure they have full coverage of their year's curriculum.
Guidance is given on each page to support the planning of each block.

Year 3 content

Year 4 content

Year Specific

The themes should be taught in order from left to right.

Place Value

Common Content

Counting

Year 3 (Aut B1)
- Hundreds
- Count in 50s

Year 4 (Aut B1)
- Count in 1,000s
- Count in 25s

Representing numbers

Year 3 (Aut B1)
- Represent numbers to 1,000
- 100s, 10s and 1s (1)
- 100s, 10s and 1s (2)
- Number line to 1,000

Year 4 (Aut B1)
- 1,000s, 100s, 10s and 1s
- Partitioning
- Number line to 10,000

Find more or less

Year 3 (Aut B1)
- Find 1, 10, 100 more or less than a given number.

Year 4 (Aut B1)
- 1,000 more or less

Compare and order

Year 3 (Aut B1)
- Compare objects to 1,000
- Compare numbers to 1,000
- Order numbers

Year 4 (Aut B1)
- Compare numbers
- Order numbers

Roman Numerals

Year 4 (Aut B1)
- Roman Numerals to 100

Within this block, Year 4 are introduced to a lot of new content including Roman Numerals, Rounding and Negative Numbers. Year 3 could also look at Roman Numerals as they are expected to recognise Roman Numerals to 12 on a clock face in later blocks.

Counting in different multiples could be done throughout the block as lesson starters with links between the different multiples being highlighted.

Rounding

Year 4 (Aut B1)
- Round to the nearest 10
- Round to the nearest 100
- Round to the nearest 1,000

Negative Numbers

Year 4 (Aut B1)
- Negative Numbers

Year Specific

Addition and Subtraction (1)

Common Content

Add and subtract multiples

Year 3 (Aut B2)
- Add and subtract multiples of 100
- 3-digit and 1-digit numbers
- 3-digit and 2-digit numbers
- Add and subtract 100s
- Spot the pattern

Year 4 (Aut B2)
- Add and subtract 1s, 10s, 100s and 1,000s

Addition - adding more

Year 3 (Aut B2)
- Add 3-digt and 1-digit - crossing 10
- Add 3-digit and 2-digit - crossing 100
- 2-digit and 3-digit - not crossing 10/100 (addition)
- 2-digit and 3-digit - crossing 10 or 100
- 3-digit numbers - not crossing 10 or 100
- 3-digit numbers - crossing 10 or 100

Year 4 (Aut B2)
- Add two 4-digit numbers - no exchange
- Add two 4-digit numbers - one exchange
- Add two 4-digit numbers - more than one exchange

Children start by pattern spotting when adding ones and multiples of 10

When adding, children begin by adding numbers with no exchange before moving onto exploring exchange by using concrete and pictorial representations to support their understanding.

Year 3 focus on adding 3-digit numbers whilst Year 4 focus on adding 4-digit numbers.

Year Specific

Addition and Subtraction (2)

Common Content

Subtraction

Year 3 (Aut B2)
- Subtract 1-digit from 3-digits
- Subtract 2-digits from 3-digits - crossing 100
- 2-digits and 3-digits - not crossing 10 or 100
- 2-digits and 3-digits - crossing 10 or 100
- 3-digit and 3-digit (no exchange)
- 3-digit and 3-digit (exchange)

Year 4 (Aut B2)
- Subtract two 4-digit numbers - no exchange
- Subtract two 4-digit numbers - one exchange
- Subtract two 4-digit numbers - more than one exchange
- Efficient subtraction

Estimate and check

Year 3 (Aut B2)
- Estimate answers
- Check answers

Year 4 (Aut B2)
- Estimate answers
- Checking strategies

Subtraction is broken down into small steps focusing on different numbers of digits with or without exchange. Year 4 then consider the most efficient strategies when tackling different subtractions.

Both year groups look at how to estimate answers. This gives Year 4 the chance to consolidate their learning on rounding. Both year groups also draw their learning together through checking strategies.

Year Specific

Multiplication and Division

Common Content

Times-tables

Year 3 (Aut B3)
- Multiply by 3
- Divide by 3
- 3 times-table
- Multiply by 4
- Divide by 4
- 4 times-table
- Multiply by 8
- Divide by 8
- 8 times-table

Year 4 (Aut B4, Spr B1)
- Multiply and divide by 6
- 6 times table and division facts
- Multiply and divide by 9
- 9 times table and division facts
- Multiply and divide by 7
- 7 times table and division facts
- 11 and 12 times table

Comparing and applying

Year 3 (Spr B1)
- Comparing statements
- Related calculations

Year 4 (Spr B1)
- Multiply 3 numbers
- Efficient multiplication

Equal groups

Year 3 (Aut B3)
- Multiplication-equal groups

Multiplying and dividing by 10,100, 1 and 0

Year 4 (Aut B4)
- Multiply by 10
- Multiply by 100
- Divide by 10
- Divide by 100
- Multiply by 1 and 0
- Divide by 1

Factors

Year 4 (Spr B1)
- Factor pairs

Year Specific

In this block, children have a focus on times tables. Once introduced, children should practice every day to improve their fluency.

Year 4 also look at how place value is affected when multiplying and dividing by multiples of 10

Both year groups apply their knowledge of times tables by looking at related calculations and efficient multiplication.