Autumn Scheme of Learning

Year 5/6

#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.

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.
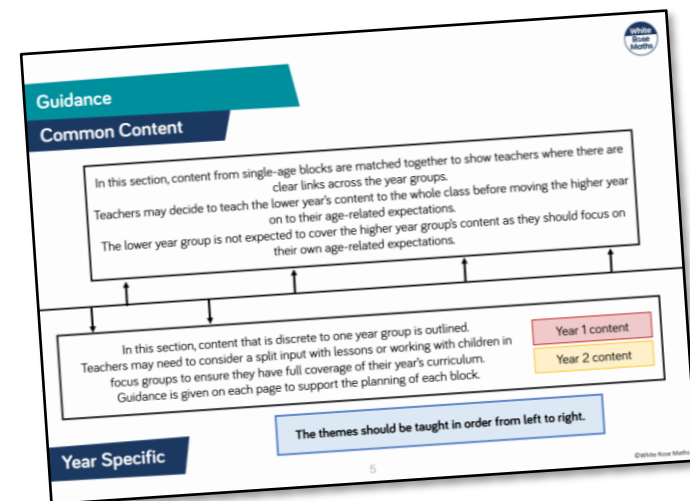
How to use the mixed-age SOL

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.

WRM – Year 5/6 – Scheme of Learning 2.0s

	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: Four Operations					Number: Fractions				
Spring	Number: Decimals and Percentages			Y5: Number: Decimals		Measurement: Converting Units	Measurement: Perimeter, Area and Volume		Y5: Consolidation		Statistics	
Spring				Y6: Number: Algebra					Y6: Number: Ratio			
Summer	Geometry: Properties of Shape		Geometry: Position and Direction	Y6: SATS		Investigations and Consolidation						

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 5 content

Year 6 content

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

Year Specific

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Place Value

Common Content

Representing numbers
Year 5 (Aut B1)
- Numbers to 10,000
- Numbers to 100,000
- Numbers to a million
Year 6 (Aut B1)
- Numbers to ten million

Compare and order
Year 5 (Aut B1)
- Compare and order numbers to 100,000
- Compare and order numbers to one million
Year 6 (Aut B1)
- Compare and order any number

Rounding
Year 5 (Aut B1)
- Round to nearest 10, 100 and 1,000
- Round numbers within 100,000
- Round numbers to one million
Year 6 (Aut B1)
- Round any number

Negative numbers
Year 5 (Aut B1)
- Negative numbers
Year 6 (Aut B1)
- Negative numbers

Within this block, there are good opportunities for Year 2 to recap important ideas introduced in Year 1 ($<$ and $>$) before applying them to larger numbers to 100

Year 1 should focus on numbers to 20 although they can be encouraged to count to 100 as this is an end of year objective and will be returned to in later blocks.

Roman Numerals
Year 5 (Aut B1)
- Roman Numerals to 1,000

Counting
Year 5 (Aut B1)
- Counting in 10s, 100s, 1,000s, 10,000s and 100,000s

Year Specific

Four Operations (1)

Common Content

Addition and subtraction
Year 5 (Aut B2)
- Add whole numbers with more than 4-digits
- Subtract whole numbers with more than 4-digits
- Inverse operations
- Multi-step addition and subtraction problems

Year 6 (Aut B2)
- Add and subtract whole numbers

Multiples
Year 5 (Aut B4)
- Multiples

Year 6 (Aut B2)
- Common multiples

Multiplication
Year 5 (Spr B1)
- 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

Year 6 (Aut B2)
- Multiply 4-digits by 2-digits

Factors
Year 5 (Aut B4)
- Factors
- Common factors

Year 6 (Aut B2)
- Common factors

× and ÷ by multiples of 10
Year 5 (Aut B4)
- Multiply by 10, 100 and 1,000
- Divide by 10, 100 and 1,000
- Multiples of 10, 100 and 1,000

In this block, Year 6 have a lot of opportunities to recap prior learning as Year 5 are introduced to content for the first time.

Building on previous year groups, children add and subtract larger numbers and use their skills to solve problems.

Children then focus on multiplication. Year 5 break down their learning into 5 small steps however Year 6 could also use this opportunity to build their skills towards their final aim of multiplying up to 4-digits by 1 or 2-digit numbers.

Year Specific

Four Operations (2)

Common Content

Division
Year 5 (Spr B1)
- Divide 4-digits by 1-digit
- Divide with remainders

Year 6 (Aut B2)
- Short division
- Division using factors
- Long division (1)
- Long division (2)
- Long division (3)
- Long division (4)

Primes, Squares and Cubes
Year 5 (Aut B4)
- Prime numbers
- Square numbers
- Cube numbers

Year 6 (Aut B2)
- Primes
- Squares and Cubes

Estimating
Year 5 (Aut B2)
- Round to estimate and approximate

Year 6 (Aut B2)
- Mental calculations and estimation

Both year groups divide numbers using short division including remainders. Year 6 then move on to look at long division.

Drawing learning together, Year 6 look at order of operations and reasoning from known facts whilst Year 5 focus on fluency within the four operations.

Order of operations
Year 6 (Aut B2)
- Order of Operations

Related facts
Year 6 (Aut B2)
- Reason from known facts

Year Specific

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Fractions (1)

Common Content

Equivalence and simplifying
Year 5 (Spr B2)
- Equivalent fractions

Year 6 (Aut B3)
- Simplify fractions
- Fractions on a number line

Compare and order
Year 5 (Spr B2)
- Compare and order fractions less than 1
- Compare and order fractions greater than 1

Year 6 (Aut B3)
- Compare and order (denominator)
- Compare and order (numerator)

Addition and subtraction
Year 5 (Spr B2))
- Add and subtract fractions
- Add fractions within 1
- Add 3 or more fractions
- Add fractions
- Add mixed numbers
- Subtract fractions
- Subtract mixed numbers
- Subtract-breaking the whole
- Subtract 2 mixed numbers

Year 6 (Aut B3)
- Add and subtract fractions (1)
- Add and subtract fractions (2)
- Add fractions
- Subtract fractions
- Mixed addition and subtraction

Improper fractions and mixed numbers
Year 5 (Spr B2)
- Improper fractions to mixed numbers
- Mixed numbers to improper fractions

Counting in fractions
Year 5 (Spr B2)
- Number sequences

In this block, children build on their previous knowledge of what a fraction is. Year 5 look at using multiplication and division to find equivalent fractions whilst Year 6 apply these skills to start to simplify fractions.

Both year groups add and subtract fractions with the same denominator and denominators that are multiples of the same number whilst Year 6 move on to adding and subtracting fractions where the denominators are not multiples of the same number.

Year Specific

Fractions (2)

Common Content

Multiplication

Year 5 (Spr B2)
- Multiply unit fractions by an integer
- Multiply non-unit fractions by an integer
- Multiply mixed numbers by an integer

Year 6 (Aut B3)
- Multiply fractions by integers
- Multiply fractions by fractions

Fraction of an amount

Year 5 (Spr B2)
- Fraction of an amount
- Using fractions as operators

Year 6 (Aut B3)
- Fraction of an amount
- Fraction of an amount- find the whole

Division

Year 6 (Aut B3)
- Divide fractions by integers (1)
- Divide fractions by integers (2)

Four operations

Year 6 (Aut B3)
- Four rules with fractions

Both year groups multiply fractions by integers, with Year 6 then moving on to multiply a fraction by a fraction.

Year 6 also explore dividing fractions and draw their learning together by using any of the four operations with fractions.

Both year groups find fractions of an amount, using bar models to support their understanding.

Year Specific