Autumn Scheme of Learning

Year 1/2

#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.

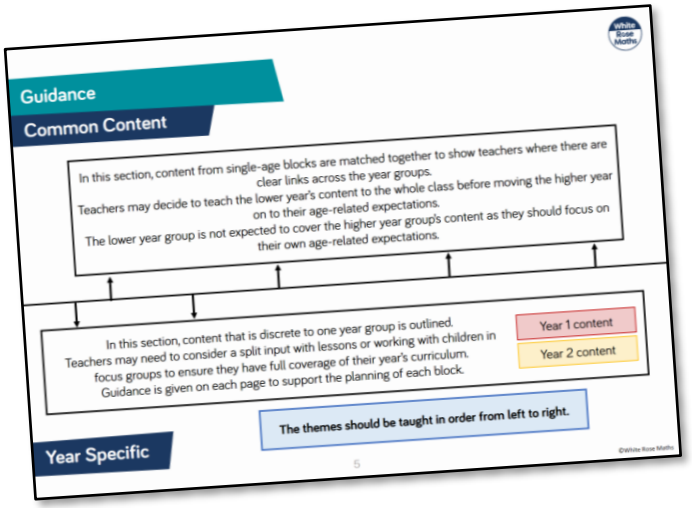
<table>
<tr><th></th><th>Week 1</th><th>Week 2</th><th>Week 3</th><th>Week 4</th><th>Week 5</th><th>Week 6</th><th>Week 7</th><th>Week 8</th><th>Week 9</th><th>Week 10</th><th>Week 11</th><th>Week 12</th></tr>
<tr><td>Autumn</td><td colspan="4">Number: Place Value
Y1 – Numbers to 20
Y2 – Numbers to 100</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 rowspan="2">Spring</td><td colspan="2" rowspan="2">Number:
Year 1: Division & consolidation
Year 2: Division</td><td>Year 1: Place Value to 100</td><td rowspan="2">Measurement: Length and Height</td><td colspan="2" rowspan="2">Geometry:
Year 1: Shape and Consolidation
Year 2: Properties of Shape</td><td colspan="3" rowspan="2">Number:
Year 1: Fractions and Consolidation
Year 2: Fractions</td><td rowspan="2">Consolidation</td></tr>
<tr><td>Year 2: Statistics</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="2">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.

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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 1 content

Year 2 content

Year Specific

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

Place Value

Common Content

Count, read and write forwards and backwards

Year 1 (Aut B1, B4)
- Count forwards to 10
- Count backwards from 10
- Count forwards and backwards to 20

Year 2 (Aut B1)
- Count forwards and backwards to 100

Represent numbers as tens and ones

Year 1 (Aut B4)
- Numbers from 11-20
- Tens and Ones

Year 2 (Aut B1)
- Represent numbers to 100
- Tens and Ones - part-whole model
- Tens and Ones using addition
- Use a place value chart

Compare groups and numbers

Year 1 (Aut B1, B4)
- One to one correspondence
- Compare groups using language
- Compare groups of objects
- Introduce <, > and = symbols
- Compare numbers (10 and 20)

Year 2 (Aut B1)
- Compare objects
- Compare numbers

Order numbers

Year 1 (Aut B1, B4)
- Order objects (10 & 20)
- Order numbers (10 & 20)
- Ordinal numbers
- The number line

Year 2 (Aut B1)
- Order objects and numbers

Sort, count and represent objects

Year 1 (Aut B1)
- Sort objects
- Count objects
- Represent objects

Count one more and one less

Year 1 (Aut, B1, B4)
- Count one more
- Count one less
- Count one more and one less

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.

Although ordinal numbers are not given their own Year 2 step, they would be a good concept to look at together to support ordering objects and numbers.

Year Specific

Addition and Subtraction (1)

Common Content

Money

Year 1 (Sum B5)
- Recognising coins
- Recognising notes

Year 2 (Aut B3)
- Count money - notes and coins
- Select money

Fact families and number bonds

Year 1 (Aut B2, Spr B1)
- Fact families - addition facts
- Find number bonds within 10
- Systematic methods within 10
- Number bonds to 10
- Compare number bonds
- Fact families - the 8 facts
- Find and make number bonds
- Related facts

Year 2 (Aut B2, B3)
- Fact families - addition and subtraction bonds to 20
- Check calculations
- Bonds to 100 (tens)
- Bonds to 100 (tens and ones)
- Make the same amount- money

Addition - adding more

Year 1 (Aut B2, Spr B1)
- Addition - adding more
- Add by counting on
- Add by making 10

Year 2 (Aut B2, B3)
- Add a 2-digit and 1-digit - crossing 10
- Add two 2-digit numbers - not crossing 10
- Add two 2 digit numbers - crossing 10
- Add three 1-digit numbers
- Find the total - money

Part-whole model

Year 1 (Aut B2)
- Part-whole model
- Addition symbol
- Addition - adding together
- Finding a part
- Subtraction - breaking apart

Add and subtract

Year 2 (Aut B2)
- Add and subtract 1s
- 10 more and 10 less
- Add and subtract 10s

Year Specific

In this block, we have incorporated some of the money blocks in order to provide better coverage of the steps for both year groups. Other money steps will be covered in the multiplication block. Children start by recognising coins and Year 2 then add and subtract using money throughout the block.

Year 1 are introduced to the part-whole model for addition and subtraction and use this to support fact families and number bonds. Year 2 can recap this learning before moving on to number bonds to 100

Addition and Subtraction (2)

Common Content

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

Difference

Year 1 (Aut B2)
- Subtraction - finding the difference

Year 2 (Aut B3)
- Find the difference - money

Compare number sentences

Year 1 (Aut B2, Spr B1)
- Compare statements (1)
- Compare statements (2)
- Compare number sentences

Year 2 (Aut B2, B3)
- Compare number sentences
- Compare money

Problem Solving

Year 2 (Aut B3)
- 2-step problems - money

Children are introduced to different structures of subtraction throughout this block. Within the part-whole model, they see subtraction as partitioning before looking at take-away and difference.

Using their addition and subtraction skills, both year groups recap the use of < and > in order to compare number sentences. Year 2 then move on to 2-step problems within the context of money. Year 1 could also be encouraged to explore addition and subtraction within money practically through games and role-play.

Year Specific

Place Value and Multiplication

Common Content

Counting in multiples

Year 1 (Sum B1, B5)
- Count in 2s
- Count in 5s
- Count in 10s
- Counting in coins

Year 2 (Aut B1, B3)
- Count in 2s, 5s and 10s
- Count in 3s
- Count money - pence
- Count money - pounds

Equal groups

Year 1 (Sum B1)
- Make equal groups
- Add equal groups

Year 2 (Aut B4)
- Recognise equal groups
- Make equal groups
- Add equal groups
- The Multiplication symbol
- Multiplication from pictures

Arrays

Year 1 (Sum B1)
- Make arrays
- Make doubles

Year 2 (Aut B4)
- Use arrays

Year Specific

Numbers to 50

Year 1 (Spr B2)
- Numbers to 50
- Tens and Ones
- Represent numbers to 50
- One more one less
- Compare objects within 50
- Compare numbers within 50
- Order numbers within 50

In this block, there is a clear split in content with Year 1 looking at numbers to 50 discretely. Teachers may decide to recap numbers to 100 with Year 2 before moving on to multiplication as a group.

Counting in multiples could be used as starters in lessons as both year groups have very similar content. Having looked at the structure of multiplication, Year 2 can then practise times tables on a daily basis.

Both year groups look at equal groups and arrays and describe them using repeated addition. Year 2 are then introduced to the multiplication symbol.

Times-tables

Year 2 (Aut B4)
- 2 times-table
- 5 times-table
- 10 times-table