

Mathematics skeleton Summer 1 (6 weeks)

Terrific take off - w.b. 19.4.21, 1 week

Problem solving activities linked to topic

Ensure an assessment session is covered at the beginning to gain accurate picture of current knowledge.

Place value – 1 week moved from spring 2 (wb. 26.4.21)

Year 1 - Counting in multiples of 2, 5 and 10.

They practise counting as reciting numbers and counting as enumerating objects, and counting in 2s, 5s and 10s from different multiples to develop their recognition of patterns in the number system (for example, odd and even numbers), including varied and frequent practice through increasingly complex questions.

- SEN – counting in 1s forwards and backwards to 10 ext: 100
- Counting in 10s
- Counting in 5s
- Counting in 2s (pay attention to above 20 e.g. 22, 24, 26... and recognising pattern for this)

Year 2 - count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward

- Counting in 5s
- Counting in 2s
- Counting in 10s from any number
- Counting in 3s – only teach if children are absolutely secure with counting in 2s, 5s 10s.

Multiplication and Division (2 weeks)

Week 1

Year 1

- SEN – Counting in 1s forwards and backwards to 10 ext: 100
- Counting in multiples of 2, 5 and 10 (recap from previous week) – apply to repeated addition
- Solve one step problems for multiplication using concrete objects and arrays – focus on oral problems and/or number sentences

Year 2

- Recall and use multiplication facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers – link to previous week learning – apply to repeated addition
- Calculate mathematical statements for multiplication within the multiplication tables and write them using the multiplication (\times) and equals (=) signs
- Show that multiplication of 2 numbers can be done in any order (commutative) – solve and write number sentences
- Solve problems involving multiplication, using materials, arrays, repeated addition, mental methods, and multiplication facts, including problems in contexts – focus on applying to problems similar to KS1 tests.

Week 2

Same as above but apply to 'division'.

Teaching point: commutative law cannot be applied for division.

DIVERSITY - ensure that problems involve diverse images e.g. people, wheelchairs, food etc.

Division teaching note:

Grouping and Sharing

12 divided by 3 = 4

Grouping – we know how many are in each group but not how many groups there will be. The answer is the number of groups.



Sharing – we know how many groups there are but not how many are in each group. The answer is the number in each group.



Use the language of division in every day life. E.g. 10 cakes divided by 5 equals 2 each. 10 socks sorted in pairs makes 5 pairs.

Addition and subtraction – 2 weeks

Revisit/recap addition and subtraction.

- SEN – combining groups to make a total; taking away an amount from a total
- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including 0
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and 1s
 - a two-digit number and 10s
 - 2 two-digit numbers
 - adding 3 one-digit numbers
 - recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
- solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.

DIVERSITY - ensure that problems involve diverse images e.g. people, wheelchairs, food etc.

Strategies to use – refer to calculation policy:

- Combining groups for a total; taking away an amount from a total
- Using number lines/number squares to support with counting on/counting back
- Using tens and ones grids to support with adding and subtracting – practical and written
 - 1. not bridging tens or regrouping
 - 2. bridging tens and regrouping

Children to apply their previous learning of repeated addition for multiplication to solve number facts e.g. If a child knew $5 + 5 = 10$ ($2 \times 5 = 10$) explain that this is also a number bond to 10.

Problem solving sessions:

Session 1: Calculation (+, -, x, ÷) See terrific take off week

Session 2: Geometry

Year 1 – revisit identifying and naming 2D and 3D shapes.

Year 2 - Order and arrange combinations of mathematical objects (2D and 3D shapes) in patterns and sequences.

Children have the option of selecting a range of 2D shapes. How many different 2 shape patterns can you make? e.g. square, rectangle, square, rectangle, ... Children consider ways to record e.g. practically taking photos, drawing shapes, writing shape names, creating a code e.g. S, R, S, R for square, rectangle, square, rectangle.

Challenge – how many different 3 shape patterns can you make? e.g. square, rectangle, triangle, square, rectangle, triangle? What other patterns can you make? e.g. square, square, triangle, square, square, triangle.

Session 3: Measurement

Year 1 - Compare, describe and solve practical problems for mass/weight.

Year 2 - choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit, using scales. Compare and order mass/weight using < > =

Question: Are all big objects heavy objects?

Can you find examples? What do we call heavy/big? Is there a better way to measure things?

Ensure children use reasoning to answer this question at the end e.g. “No not all big objects are heavy because I weighed a balloon and it was lighter than a rock which was smaller”