

Number – fractions

- Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity

Which shapes represent one third?



Explain why the other circles do not represent one third.

- Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$

Complete:

$$\frac{1}{3} \text{ of } 9 = \square \quad \frac{1}{3} \text{ of } 15 = \square$$

$$\frac{1}{3} \text{ of } 12 = \square \quad \frac{1}{3} \text{ of } 18 = \square$$

Teaching for Mastery is 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 stages 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 time to build reasoning and problem solving elements into the curriculum.

Concrete – Pictorial – Abstract

As a school we believe that all students, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach.

Concrete – students should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial – students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.



Maths

Progression in Number

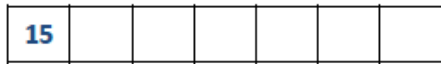
Year 2

Abstract – with the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence.

Number and Place Value

- Count in 2, 3 and 5 from 0 and in tens from any given number, forward and backward

Sid has 15 stickers. He collects 3 more each day. Complete the number track to show how many he will have in 6 days.



- Recognise the place value of each digit in a two-digit number (tens, ones)

Fill in the missing numbers:

$$1 \text{ ten} + 3 \text{ ones} = 13$$

$$2 \text{ tens} + \boxed{} \text{ ones} = 23$$

$$\boxed{} \text{ tens} + 3 \text{ ones} = \boxed{}$$

$$\text{tens} + 3 \text{ ones} = 43$$

- Identify, represent and estimate numbers using different representations, including the number line

Place 36 on each of the number lines below:



- Compare and order numbers from 0 up to 100; use < > = signs

Number – additions and subtraction

- Solve problems with addition and subtraction

Match the number sentences to the correct number.

20 + 19	10 + 4	40 + 0	80 + 1
40	14	81	39

- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100

Fill in the missing numbers

$$2 + 6 = 8 \qquad 20 + 60 = \underline{\quad}$$

$$2\underline{\quad} + \underline{\quad}0 = 80 \qquad 80 = \underline{\quad}0 + 6\underline{\quad}$$

- Add and subtract numbers using concrete objects, pictorial representations and mentally

Using concrete apparatus, can you talk about the relationships between the different flowers?



- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot

- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems

Number – multiplication and division

- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers

There are 35 fingers. How many hands?

$$\underline{\quad} \times 5 = 35$$



- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.

Complete:



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \text{ lots of } 3 = \underline{\quad}$$

$$\underline{\quad} \text{ multiplied by } \underline{\quad} = 12$$

- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot

Complete the number sentences to describe the arrays.



$$2 \times 3 \quad \text{and} \quad \underline{\quad} \times \underline{\quad}$$

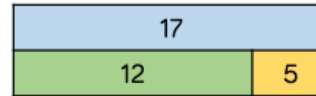
Put $<$, $>$ or $=$ in each circle.

$$28 \bigcirc 30$$

$$90 \bigcirc 70 + 28$$

- Read and write numbers to at least 100 in numerals and in words
- Use place value and number facts to solve problems

Can you use inverse operations to check $5 + 12 = 17$?



- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

Altogether there are 30 bottles, how many walls are there?



$$\underline{\quad} \times 10 = 30$$