Year 4

Teaching Maths for mastery involves employing approaches that help pupils to develop a deep and secure knowledge and understanding of mathematics at each stage of their learning, so that by the end of every school year or Key Stage, pupils will have acquired mastery of the mathematical facts and concepts they've been exposed to, equipping them to move on confidently and securely to more advanced material.

Place value

- Count in multiples of 6, 7, 9. 25 and 1000.

- Find 1000 more or less than a given number.

- Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones)

- Order and compare numbers beyond 1000

- Identify, represent and estimate numbers using different representations.

- Round any number to the nearest 10, 100 or 1000

- Solve number and practical problems that involve all of the above and with increasingly large positive numbers.

- Count backwards through zero to include negative numbers.

- Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

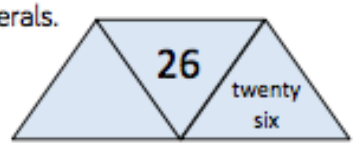
Why is there no zero in the Roman numerals? What might it look like?

Do you notice any patterns? If 20 is XX what might 200 be?

How can you check you have represented the Roman numeral correctly?

1 Lollipop stick activity.
The teacher shouts out a number and the children make it with lollipop sticks.
Children could also do this in pairs or groups, and for a bit of fun they could test the teacher!

2 Each diagram shows a number in numerals, words and roman numerals.



Complete the diagrams.

3 Complete the function machines.

Place Value Reasoning and Problem Solving:

Solve the following calculation:

XIV + XXXVI = ☐

How many other calculations, using Roman numerals, can you write to get the same total?

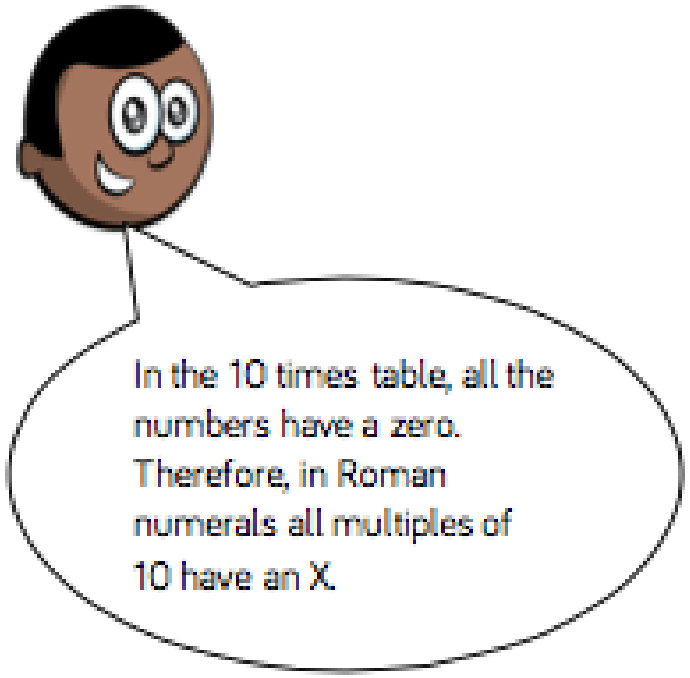
C + II = L
L + I = L

X × V = L
XXV × II = L

LXV − XV = L
C − L = L

XX + XX + X = L

Bobby says:



Research and give examples to prove whether or not Bobby is correct

Bobby is incorrect. A lot of multiples of 10 have an X in them but the X can mean different things.
For example X in 10 just means one ten but X in 40 (XL) means 10 less than 50
X in 60 (LX) means 10 more than 50
The numbers 50 has no X and neither does 100

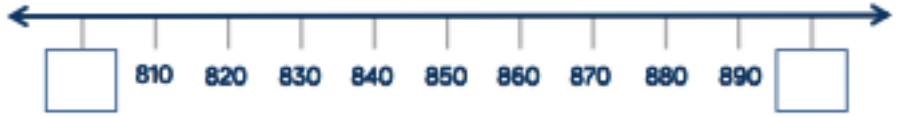
How is rounding to the nearest 100 similar and different to the nearest 10?

Which column do we need to look at when rounding to the nearest 100?

Why do numbers up to 49 round down to the nearest 100 and numbers 50 to 99 round up?

When rounding to 10 our number has one zero and when rounding to 100 is has two zeros. Why?

1 Which multiples of 100 do the numbers sit between?



2 Say whether each number on the number line is closer to 500 or 600

Round 537, 555 and 568 to the nearest 100

3 Complete the table.

Start number	Rounded to the nearest 10
400 + 50 + 7	
994	
XLV	

Are the statements always, sometimes or never true?

Explain your reasons for each statement.

- A number with a five in the tens column rounds up to the nearest hundred.
- A number with a five in the ones column rounds up to the nearest hundred
- A number with a five in the hundreds column rounds up to the nearest hundred.

Always- a number with a five in the tens column will be 50 or above so will always round up.

Sometimes- a number with a five in the ones column might have 0-4 in the tens column and round down or might have 5-9 in the tens column and round up.

Sometimes- a number with a five in the hundreds column might have 0-4 in the tens column and round down or might have 5-9 in the tens column and round up.

When a number is rounded to the nearest 100 it is 200

When the same number is rounded to the nearest 10 it is 250

What could the number be?

249 because when rounded to the nearest 10 it round to 250 and when rounded to the nearest 100 it rounds to 200

Other numbers include: 248, 247, 246, 245

Using the digit cards 0-9, can you make numbers that fit the following rules? You can only use each digit once

1. When rounded to the nearest 10, I round to 20
2. When rounded to the nearest 10, I round to 10
3. When rounded to the nearest 100, I round to 1000

To 20 it could be: 15-24

To 10 it could be: 5-14

To 500 it could be 650-749

Only each digit once: 5, 24, 679 or 9, 17, 653 etc.

Addition and subtraction

- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.

- Estimate and use inverse operations to check answers to a calculation.

- Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.

Measure- length and perimeter

- Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres

- Convert between different units of measure [for example, kilometre to metre]

Multiplication and division

- Recall and use multiplication and division facts for multiplication tables up to 12 × 12.

- **Count in multiples of 6, 7, 9.** 25 and 1000

- Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.

- **Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit**, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.