

# Year 3

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.

- Children should know what 100 is and what it looks like.
- They should be able to find 1 less and 1 more than a given number.

# Place value

- Identify, represent and estimate numbers.
- Finding 10 or 100 more or less than a number
- Recognise hundreds, tens and units in a number
- Compare and order numbers up to 1000
- Read and write numbers in numerals and words up to 1000
- Word problems involving place value
- Count in 4's, 8's, 50's and 100's

# Place Value

You could look at a place value chart seeing 100, 200, 300 etc  
What is the difference between 900 and 1000?

There are 100 sweets in each jar, how many are there all together

Completing a missing number sequence

Using smaller than and greater than signs to identify the larger

Why is it important to put numbers into the correct column on the place value grid?

To read numbers from place value grid

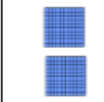


Calculate the value of numbers on a number line where you are given some numbers.

10 more/less and 100 more/less than a given number

What happens when I subtract 10 from 209?



How do you compare 2 numbers?

1 What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

Write it in numerals and words.


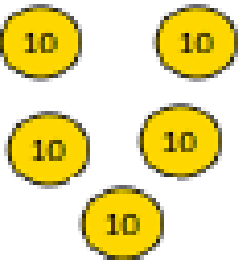
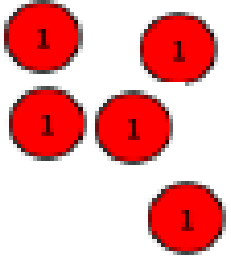
2 Complete this place value chart so that it shows 354

Hundreds	Tens	Ones
		

3 What number would this make?

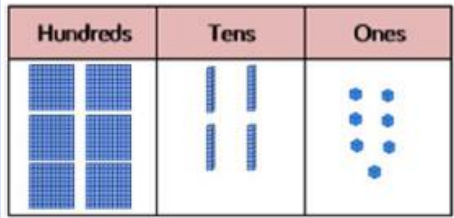
3	0	0
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3
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Hundreds	Tens	Ones
		

# Place Value Reasoning and Problem Solving:

If I count in 100s from zero, all the numbers will be even, is this correct? Why?



Steph



The place value grid shows 467

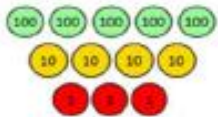

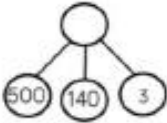
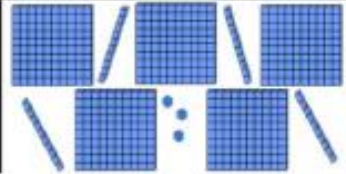
Do you agree?

Explain your reasoning.

What do you notice about the number shown?

How many different ways can you make 340?  
Which number is greater? Which is smaller?

Which image is the odd one out?

Explain why.

Children should understand that a 3 digit number is made up of 100s, 10s and 1s.

They can read numbers shown in different representations on a place value grid and be able to write them in numerals. They should be able to represent different 3 digit numbers using a variety of methods such as Base 10 or numerals.

## Mathematical Talk

What is the value shown on the place value chart?

Why is it important to put the values into the correct column on the place value chart?

How many more is needed to complete the place value chart?

Can you make your own numbers for a friend using arrow cards?

1



What is the value of the number represented in the place value chart?

Hundreds	Tens	Ones
		

Write it in numerals and words.

2

Complete this place value chart so that it shows 354

Hundreds	Tens	Ones
		

3

What number would this make?



# Addition and Subtraction

Add and subtract numbers mentally including subtracting units, tens and 3 digit numbers from 3 digit number.

Add and subtract numbers with 3 digits using a formal method.

Use inverse operations to check answers.

Solve problems, including missing number problems, number facts and place value.

Use a 100 number square with your child to add and subtract units and tens. You could also use a number line.

Formal method:

$$\begin{array}{r} 263 \\ + 321 \\ \hline \end{array}$$

$$\begin{array}{r} 524 \\ - 371 \\ \hline \end{array}$$

Inverse operation to check answers:

$$34 + 10 =$$

# Multiplication and Division

Multiplying and dividing by 0, 4, 8, 50, 100.

Formal methods of multiplying 2 digits by 1 digit.

Missing number problems involving multiplication and division.

Formal methods of multiplying 2 digits by 1 digit

$$\begin{array}{r} 42 \\ \times 4 \\ \hline \end{array}$$

# Ways of teaching division

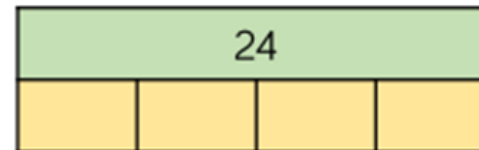
## 24 divided by 4 equals

Circle the buttons in groups of 4.

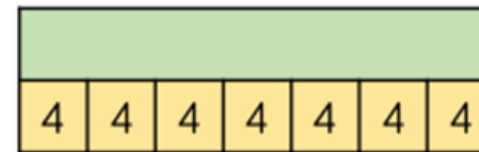


Can you also split the buttons into 4 equal groups?  
How is this the same? How is it different?

Complete the bar models and the calculations.



$$24 \div 4 = \underline{\quad}$$



$$\underline{\quad} \div 4 = \underline{\quad}$$