

## Place value in years 4, 5 and 6 – what are the expectations of the National Curriculum?

Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• count in multiples of 6, 7, 9, 25 and 1,000</li> <li>• find 1,000 more or less than a given number</li> <li>• count backwards through 0 to include negative numbers</li> <li>• recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)</li> <li>• order and compare numbers beyond 1,000</li> <li>• identify, represent and estimate numbers using different representations</li> <li>• round any number to the nearest 10, 100 or 1,000</li> <li>• solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> <li>• read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value</li> </ul>	<ul style="list-style-type: none"> <li>• read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</li> <li>• count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000</li> <li>• interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</li> <li>• round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000</li> <li>• solve number problems and practical problems that involve all of the above</li> <li>• read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</li> </ul>	<ul style="list-style-type: none"> <li>• Consolidate learning from years 4 and 5</li> <li>• read, write, order and compare numbers up to 10,000,000 and determine the value of each digit</li> <li>• round any whole number to a required degree of accuracy</li> <li>• use negative numbers in context, and calculate intervals across 0</li> <li>• solve number and practical problems that involve all of the above</li> </ul>

Understanding place value is vital in your child’s sense of number awareness and ability to calculate. These ideas can be used at home when you are working together, to help you support your child’s understanding of the number system. If the ideas are either too hard or easy for your child, take a look at some of the ideas from the year above or below.

## How can I help my child?

### Year 4

Objective	Activity
<ul style="list-style-type: none"><li>count in multiples of 6, 7, 9, 25 and 1,000</li></ul>	<p>Ask your child to count forwards and backwards in the step you have agreed. Go from different starting points. Write out a series of numbers with gaps and ask them to fill in – e.g., 14 _ _ 35 _ 49 Ask questions such as: what is 25 more than 50? 9 less than 54?</p>
<ul style="list-style-type: none"><li>find 1,000 more or less than a given number</li></ul>	<p>Start with 1000s – e.g., 4000. What is 1000 more? Less? What is 2000 more? Less? Move onto 4 digit numbers which aren't multiples of 1000 – 3254, 8761 etc. As your child writes these down and says the numbers, ask what they notice. (the only digit to change is the thousands digit)</p>
<ul style="list-style-type: none"><li>count backwards through 0 to include negative numbers</li></ul>	<p>Draw a line on a page. Put 0 in the middle. Ask your child to mark 1,2,3,4 and 5 where they should go. Ask what happens if we go in the other direction – what is 1 less than 0. Ask your child to mark in -1, -2, -3, -4, -5. Ask questions such as “What is 1 more than -2?” “What is 2 less than 1?” Encourage your child to use the line to start with. When they feel confident, ask the questions without using the line.</p>
<ul style="list-style-type: none"><li>recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)</li></ul>	<p>Write out a series of 4 digit numbers. Ask your child what each digit is worth. Check that they understand that in 7694, the 6 is worth 600, 7 is 7000 etc. Ask your child to partition (break up) numbers into their parts – <math>6754 = 6000 + 700 + 50 + 4</math>. When they are confident, ask them to partition in different ways. For example, 6754 could also be <math>6200 + 500 + 40 + 14</math>.</p>

- order and compare numbers beyond 1,000
- identify, represent and estimate numbers using different representations
- round any number to the nearest 10, 100 or 1,000

Write out a series of numbers with one of the digits underlined – e.g., 7685. Ask your child to write out the value of the underlined digit in the number.

Give your child 4 digits – e.g., 8, 5, 2, 7. Ask them to make as many 4 digit numbers as they can using these digits. Now ask them to order them from lowest to highest. For example 2578, 2587, 2758, 2785, 2857, 2875, 5278, 5287 etc. Now ask them to write some numbers in between the numbers they have written e.g., between 2875 and 5287, they could record 2999, 3098 etc

Children can find creative ways to represent numbers – e.g., partitioning as above; representing numbers using symbols for 100s, 10s and 1s – e.g.,



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Ask your child to tell you how to round numbers. If they are unsure, start with rounding to 10. Give them a number, say 73, and draw a line with 70 at one end and 80 at the other. Ask them to show you where 73 would fit on the line. Is it closer to 70 or 80? How much of a difference is there between 70 and 73 and 73 and 80? Establish that the nearest 10 is 70. Remind them of the rule about 75 – if the number is in the middle of 70 and 80 we round up. Less than 5, we round down.

If you move onto rounding to the nearest 100, start with numbers such as 670 and 560 - ending in 0. If we are being asked to round to the nearest 100, we check the hundreds digit first – that will either stay the same or increase by one. Next we check the tens digit beside it – if it is 5 or more, we round up, If less than 5, we round down. Move onto numbers such as 457, 956 etc. Make sure the children know that the ones digit is not important when rounding to

- solve number and practical problems that involve all of the above and with increasingly large positive numbers
  
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the nearest 100 – we always look at the hundreds and then check the size of the tens digit to make our rounding decision.

Rounding to 10 or 100 is useful in shopping lists. You can make up a list of prices - e.g., milk – 75p, tea 92p, bread 86p etc and ask the children to round to the nearest 10p to estimate. They can add their rounded figures and then add their actual prices and see what the difference is.

Children can use the web to research different numbers – e.g., heights of mountains in the UK, populations of areas in Birmingham to order and round numbers, find the difference between the largest and smallest.

This link shows how the Roman numeral system works if you want to explore it with your child. If this has been covered in class, your child may have found it hard to grasp and if you are not confident, you would be better to focus on the work above

<https://www.rapidtables.com/math/symbols/roman-numerals-1-100.html>

You could help your child to spot where Roman numerals are used – some books, end of TV programmes and films and on clocks, so that they are familiar with the characters.