

# Y5 - Place Value

By the end of Year 5, children must have a secure understanding of **numbers up to at least 1,000,000**. They must be able to identify the value of each digit in a number (for example, that the **6** in 2,34**6**,207 is **6000**) and use this information to help them compare and order numbers. They will also be expected to round numbers of this size to the nearest 10, 100, 1000, 10 000, or 100 000. A secure knowledge of place value will support them with this.

Not only will children practise counting forwards and backwards in steps of powers of 10 (that is 10, 100, 1000, 10 000, or 100 000), but they will also revise counting through zero, using both positive and negative numbers.

## Activities & Games!

★ **Make this number:** Make yourself a set of digit cards; you may want more than one card for each digit. Ask an adult to say a number (e.g. 24, 567) for you to make with your digit cards. Can you now round that number to the nearest 10/100/1000/10000? Continue with different numbers.

★★ **Digit cards:** Use a 0-9 dice, or a set of digit cards, to select four, five or six digits. Make up some challenges such as: *What's the biggest/smallest number you can make? What's the biggest even/odd number you can make? What's the closest number to 10 000 you can make?*

★★★ **What's my number?** Write down six 7-digit numbers. Choose one in secret and then give your partner several clues so that they can work out which number you chose. Your clues could include: *Four of the digits are even. The digit in the ten thousands place is greater than the digit in the ones place. The ones digit is not in the three times table. The thousands digit is not double the ones digit. The sum of the tens and thousands digits is a multiple of five. Rounded to the nearest hundred, my number is \_\_\_\_\_.*

★★ **Timed counting:** You will need a partner to shout instructions at you for this game! Start by counting up in 10s from zero, until your partner gives you the instruction 'Count in 100s'. Whatever number you get up to (perhaps it was 130), you must now start counting up in 100s from it (e.g. 130, 230, 330....and so on), waiting for the next instruction, which might be 'Count up in 1000s' or 'Count up in 10,000s'. They could even ask you to count backwards in a particular multiple!

★★ **What's the difference?** Ask an adult to give you two different temperatures. They could be two negative temperatures; a negative and a positive temperature; or two positive temperatures. Your job is to find the difference between them.

# Going deeper...

## One Million to Seven!

Start by putting one million (1000000 ) into the display of your calculator.

Can you reduce this to 7 using just these six buttons - the 7 key and add, subtract, multiply, divide and equals as many times as you like?



What is the shortest way can you find to do it?



**Wonderful websites**

[Calculator Bingo](#)

[Negative Numbers](#)

[Ordering Negative Numbers](#)

[Temperature](#)

[Higher and Lower](#)

Whilst it can be very tempting to encourage your child to have a go at the more challenging activities, it is far better to work with them at a level they feel confident with. Significant and regular practise of even the most basic skills outlined in this document will lead to a much deeper understanding and greater proficiency, and ultimately a much more pleasant 'homework' experience for you and your child!