## Yr 6 Number and Place Value Knowledge Organiser

## National Curriculum Aims

> read, write, order and compare numbers up to 10000000 and determine the value of each digit
$>$ round any whole number to a required degree of accuracy
$>$ use negative numbers in context, and calculate intervals across zero
$>$ solve number and practical problems that involve all of the above.

| Key Vocabulary |  |
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| Greater than $\geq$ | If one quantity is more than a second quantity, then it <br> is greater than that second quantity. |
| Less than $\leq$ | If one quantity is less than a second quantity, then it is <br> less than that second quantity. |
| Equal | If one amount equals the other, then they have the <br> same value. |
| Ascending order | Going up in order from smallest to largest. |
| Descending order | Going down in order from smallest to largest. |
| Positive | A number greater than zero. |
| Negative | A number less than zero. |
| Compare | Look for differences and similarities between them. |
| Consecutive | Means one after the other in order. |
| Digit | A digit in any of the 10 numerals: 0-10 |
| Partition | Involves separating a set into subsets. When a <br> number is partitioned it is split into separate parts. |
| Round | To give an approximate number and to make it easier <br> to work with. |

## Home Learning

- Talk about the value of digits in numbers when buying items in the supermarket.

- When cooking it would be useful to discuss weights in both g and kg and discuss the place value of the digits.


## Core Knowledge and Representations



This is the same as writing it as: 1,041,312

It is also the same as: $\mathbf{1 , 0 4 1 , 3 1 2 = 1 , 0 0 0 , 0 0 0 + 4 0 , 0 0 0 + 1 0 0 0 + 3 0 0 + 1 0 + 2}$

Rounding numbers to the nearest 10,100, 1000

## Rounding numbers to the nearest 10

If the ones digit is less than five, the number needs to be rounded down. If the ones digit of the number is 5 or above the number needs to be rounded up.

So 32 would be rounded down to 30 , 35 would be rounded up to 40 and 38 would also be rounded up to 40 .


Rounding numbers to the nearest 100:
So 834 would be rounded down to 800,851 would be rounded up to 900 and 876 would also be rounded up to 900 .


## Negative Numbers:

The temperature on Monday morning is $-5^{\circ} \mathrm{C}$. The temperature on Friday morning is $1^{\circ} \mathrm{C}$. How much warmer is it on Friday morning than on Monday morning?

## Using the number line tells us the difference and the answer is $6^{\circ} \mathrm{C}$.



