Year 5 Starlings

Mathematics

Autumn 1

Number

Place Value

Addition & subtraction

Key Vocabulary		Definition
Place Value	compare	Determining which number is the biggest by looking at the greatest place value and seeing which digit is largest.
	greater than	Represented by the symbol > it shows that the number on the left is bigger than the number on the right.
	less than	Represented by the symbol < it shows that the number on the left is smaller than the number on the right.
	partition	A way of breaking a number into different parts.
	Roman numerals	An old system for writing numbers which did not use digits but symbols. No more than three of the same could be used together.
	rounding	To make a number simpler for calculations, but one that is less accurate.
Addition and subtraction	addition	Finding the total or sum by combining two or more numbers.
	digit	Represented by the numerals 0 – 9 a digit can be a number or can be combined to make larger numbers with each digit having a different value.
	exchange	Changing ten ones into one ten or one ten into ten ones to solve calculations
	multi-step	To have to do more than one calculation to find the answer.
	subtraction	Taking one number away from another to find the difference.

What is place value?

Place value refers to the value of each digit in a number. Place value requires children to understand that numbers such as 582 and 258 are different, even though the digits are the same. In Year Five, the numbers can be as large as a million.

HTh Hundred Thousands	TTh Ten Thousands	Th Thousands	H Hundreds	T Tens	O Ones
7	1	4	8	2	5

Place value charts can also look a little different to help us understand number. The one below chunks the number into two three-digit sections as this is how it would be said: four hundred and twenty-two thousand, four hundred and forty-one.

Thousands			Ones		
H	T	O	H	T	O
●● ●●	●●	●●	●● ●●	●● ●●	●

Addition and Subtraction

It is essential when calculating that digits are placed in the correct place value column. Addition and subtraction both start in the smallest column (in these cases the ones). Sometimes exchanges are needed as indicated in green.

$$\begin{array}{r} 38 \\ +\ 93 \\ \hline 131 \end{array}$$

8 + 3 equals 11, so an extra ten has been formed. This is added to the tens' column.

$$\begin{array}{r} {}^{6}\cancel{7}\,{}^{1}2 \\ -\ 56 \\ \hline 16 \end{array}$$

When trying to take 6 from 2. An exchange is needed so one ten is changed to ten ones.

Rounding:

To round to a given column, check the column to its right. If the digit is 0 – 4 leave your original digit the same. If it is 5 – 9, raise the digit by one.

Round to the nearest ten	Round to the nearest hundred
54 → 50	415 → 400
55 → 60	950 → 1000
313 → 310	7261 → 7300

Roman Numerals

Roman numerals represent numbers. They have no place holder and only use a maximum of three of the same letter.

I = 1	XXX = 30	C = 100
II = 2	XL = 40	D = 500
III = 3	L = 50	M = 1000
IV = 4	LX = 60	
V = 5	LXX = 70	MMXVIII = 2018
X = 10	LXXX = 80	
XX = 20	XC = 90	