Maths - Year 5

Numbers and the Number System 1: Working with numbers up to a million

Key Vocabulary

Estimate	A good guess, close to the actual.
Place value	Relates to the value of each digit in a number e.g. hundreds, tens and ones.
Zero has a place holder	Zero as a place holder changes the value of other digits e.g. 52 could become 502 or 520.
Roman numeral	Symbols used by the Romans to represent numbers.

Mathematical Skills

- Show understanding of the quantity value of larger numbers in real-world contexts.
- Read 6-digit numbers represented in different ways, e.g. on measuring instruments and place value grids.
- Explain how to represent numbers greater than 10,000 with base-ten apparatus.
- Write 6- and 7-digit numbers.
- Connect column and quantity value in numbers up to 1,000,000.
- Use 0 as a place holder in numbers up to 1,000,000.
- Count in steps of 1000 from any number, recognising which digit changes when a place value boundary is crossed.
- Use < and > symbols to order numbers with up to seven digits.
- Read and write Roman numerals up to 1000(M) and recognise year numbers written in Roman numerals.

Mathematical Methods

- Reading larger numbers e.g. 165,423

Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
1	6	5	4	2	3

100 000	60 000	5000	400	20	3

- Reading meters and recording large numbers.

384 514

- Visualising a million.

1000

10 000

100 000

100000

1000000
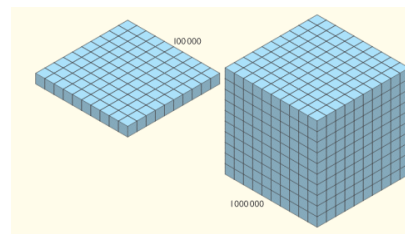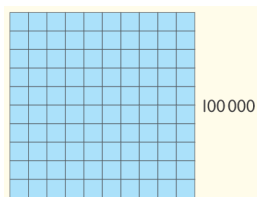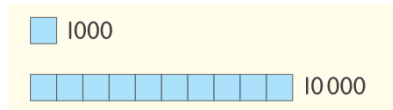
- Extending the place value frame.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
	3	1	3	2	1	1

- Exploring equivalence in place value.

- = 1000 points
- = 100 points
- = 10 points
- = 1 points
- = 10 000 points
- = 100 000 points
- = 1 000 000 points
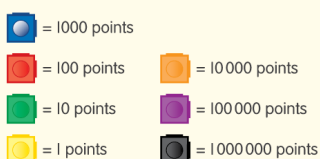
10 yellows = 1 green	100 yellows = 1 red	1000 yellows = 1 blue	10 000 yellows = 1 orange	100 000 yellows = 1 purple	1 000 000 yellows = 1 black
10 greens = 1 red	100 greens = 1 blue	1000 greens = 1 orange	10 000 greens = 1 purple	100 000 greens = 1 black	
10 reds = 1 blue	100 reds = 1 orange	1000 reds = 1 purple	10 000 reds = 1 black		

313 211
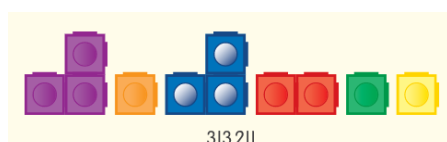
- Counting in powers of ten e.g. 44,503, 45, 503, 46,503 or 44,503, 54,503, 64, 503 etc.

- Ordering 5- and 6-digit numbers e.g. 254,446 > 212,960 > 201,356

- Reading Roman Numerals e.g. 399 in Roman Numerals is CCCXCIX

Can you..?

- Can you make a number with the following digits that lies between 3,286,471 and 4,183,762?

1 2 3 4 5 6 7 8

- Make five 7-digit or 6-digit numbers by rolling a dice and put all your numbers in order, starting with the smallest.

- What does XLII represent?