Multiplication and Division

Lesson sequence

Multiplying 4 digit by 1 digit
Multiplying 2 digit by 2 digit
Multiplying 3 digit by 2 digit
Multiplying 4 digit by 2 digit
Solve world problems with multiplication
Short division with remainders
Solve world problems with division

Vocabulary revision

- *Divide*
- *Multiply*
- *Exchange*
- *Thousands*
- *Partition*
- *Remainder*
- *Decimal*
- *Ten of thousands*

- *Integer*
- *Digit*
- *Place value*
- *Factors*
- *Multiples*

Sticky learning

New Knowledge

- *To know the formal written method of division*
- *To know the formal written method of long multiplication*
- *To know that a remainder is the amount left over when a number cannot be exactly divided by another number*
-

New Skills

- *To multiply and divide numbers mentally drawing upon known facts*
- *To multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers*
- *To divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context*
- *To solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes*
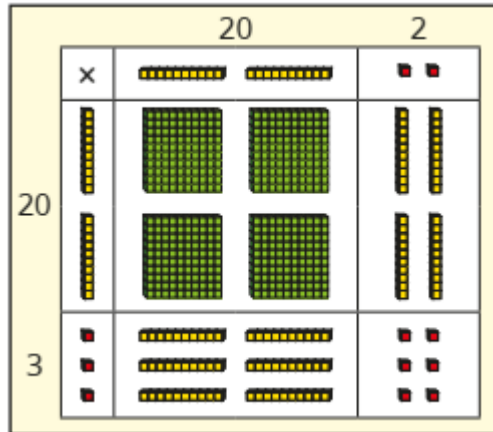
New vocabulary I will learn

- Place value holder
- Long multiplication
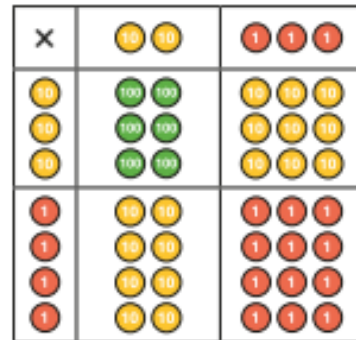- Short division
- Efficient
- Area model

Pictorial representations

×	10	3
30	300	90
2	20	6

300 + 90 + 20 + 6 = 416

		3	2
×		1	3
		9	6
	3	2	0
	4	1	6
	1		

Concept Links/Prior Knowledge

- *To know the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)*
- *To identify, represent and estimate numbers using different representations*
- *To solve number and practical problems that involve all of the above and with increasingly large positive numbers.*
- *Use mental methods and extend this to three-digit numbers to derive facts, (for example 600 ÷ 3 = 200 can be derived from 2 x 3 = 6*
- *To use knowledge of number facts and rules of arithmetic to solve mental and written calculations for example, 2 x 6 x 5 = 10 x 6 = 60*
- *To recall multiplication and division facts for multiplication tables up to 12 × 12 including the six, seven and nine times tables*

- *To know the formal written method for multiplication*
- *To know the formal written method of division*
- *To know that multiplying a number by a group of numbers added together is the same as doing each multiplication separately (distributive law)*