Castlefield School- Maths

Topic: Multiply and divide 2 and 3 digit numbers	Year: Four	Theme: Multiplication and Division

Key concepts and questions

Why do you need to start multiplying from the ones?

When multiplying numbers by a 1 digit number you must always start from the ones column as you may need to make an exchange.

Formal written method 2-digit x 1-digit

start here

18 x 6

	T	O
	1	8
x		6
1	0	8

1) 8 x 6 = 48
2) 10 x 6 = 60
3) 60 + 4 tens exchanged = 100

Formal written method 3-digit x 1-digit

start here

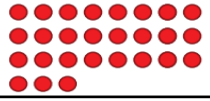
148 x 4

	H	T	O
	1	4	8
x			4
	5	9	2

1) 8 x 4 = 32
2) 40 x 4 = 160
3) 160 + 3 tens exchanged = 190
4) 100 x 4 = 400
5) 400 + 1 hundred exchanged = 500

What is a remainder?

In division, the whole may not always share into equal groups. The amount left over is called the remainder.



27 ÷ 8 = 3 remainder 3

Key Vocabulary

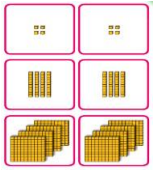
Hundreds	tens	ones	zero
place value	multiply	divide	times tables
whole	The total	commutative	Multiplication can be done either way e.g. 6x4=24 and 4x6=24
partition	Split into parts.		
remainder	The part left over.	factor pairs	2 numbers which multiply to equal a whole. E.g. 3 and 6 are factors of 18.
group	Place items into equal groups.		
share	Split a whole into equal groups.	array	Place objects into rows and columns.

Making connections

Multiplication facts

Make use of known multiplication and division facts as an efficient method.

e.g. 8 ÷ 2 = 4

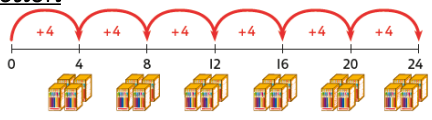


80 ÷ 2 = 40

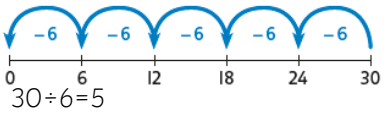
800 ÷ 2 = 400

Addition and subtraction

Multiplication is repeated addition.



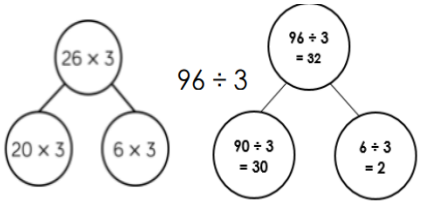
Division is repeated subtraction.



Representations

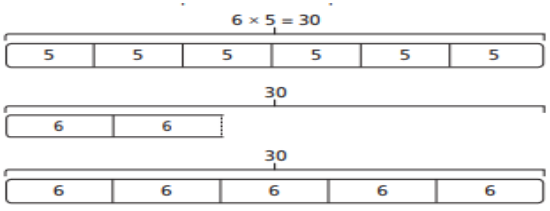
Part whole models

This will help with separating the whole into parts to multiply and divide.



Bar Model

A bar model helps to represent multiplication and division questions.



Formal multiplication

Place value charts and counters help with exchanging.

	H	T	O
		3	4
x			5
	1	7	0
	1	2	