Year 3 Multiplication and division Knowledge
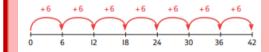
Star Vocabulary

multiple
divide
Repeated addition
Repeated subtraction
multiplier (factor)
multiplication
Product
division
divisor
times
Quotient
inverse
Group
Lot of
array

Recognise the place value of each digit in four-digit numbers.

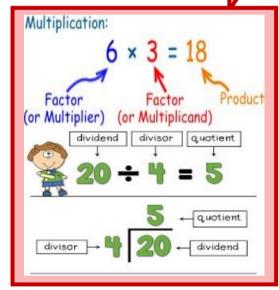Recognise the place value of each digit up to 2 decimal places.

The **number line** is an effective way to represent multiplication and division. It shows grouping clearly and helps with counting on and back.

Arrays visually show multiplication and division. They are clear at showing commutativity, such as 2 x 5 = 5 x 2

Multiplication:
6 x 3 = 18
Factor (or Multiplier)   Factor (or Multiplicand)   Product
dividend   divisor   quotient
20 ÷ 4 = 5
5 ← quotient
divisor → 4) 20 ← dividend

Sentence Stems
What is the missing number?
_____ x 3 = 27

What is the missing number?
4x _____ = 6

An athlete runs 12km every day for 5 days. How many kilometres do they run in total?

Misconceptions: Why?

A number multiplied or divided by 0 doesn't' equal the original number:
0 x 3= 0 (not 3)

Multiplication and addition aren't the same: 2+2+2 = 6 and 3 x 2 = 6 but you can use

Factual & Conceptual Fluency progression

Addition and subtraction within 10.

Secure and maintain fluency in addition and subtraction within and across 10, through continued practice.

Recall the 2, 4 and 8 multiplication tables, and corresponding division facts.

Recall the 7-multiplication table, and corresponding division facts.

Addition and subtraction across 10.

Recall the 10 and 5 multiplication tables, and corresponding division facts.

Recall the 3, 6 and 9 multiplication tables, and corresponding division facts.

Recall the 11 and 12 multiplication tables, and corresponding division facts.

Secure and maintain fluency in all multiplication tables, and corresponding division facts, through continued practice.