Maths

Year 7 Term 3 Trinity MAT

1. Times Tables

9 x 1 = 9

9 x 2 = 18

9 x 3 = 27

9 x 4 = 36

9 x 5 = 45

9 x 6 = 54

9 x 7 = 63

9 x 8 = 72

9 x 9 = 81

9 x 10 = 90

9 x 11 = 99

9 x 12 = 108

2. Addition and Subtraction

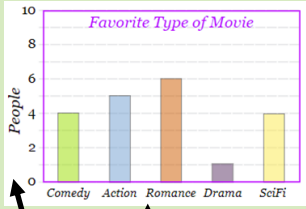
Sum is the total of adding two or more numbers e.g. The sum of 8 and 3 is 11 (8+3)

Difference is the result of subtracting one number from another e.g. the difference between 8 and 17 is 9 (17-8=9)

Commutative means we can change the order of numbers.
Addition is commutative because 2 + 7 = 9 and 7 + 2 = 9
Subtraction is not commutative because 5 – 2 = 3 but 2 – 5 = -3

Associative means we can complete the calculation in any order.
e.g. (4 + 7) + 1 = 4 + (7 + 1)
11 + 1 = 4 + 8
12 = 12

Bar charts are a way of representing data.
The height of the bar chart tells you the **frequency**.
The **frequency** shows the number of people.
The bars must be of equal widths and have equal gaps between them.



Data categories on the **horizontal** axis.

Frequency on the **vertical** axis.

3. Financial Maths

Credit is money going into a bank account.

Debit is money going out of a bank account.

Balance is how much money is in an account.

Date	Description	Credit £	Debit £	Balance £
2nd May	Opening balance			104.50
5th May	Gift	20		124.50
6th May	Phone Bill		38.50	86

Profit is gaining money. e.g. Sam bought a car for £3000 and sold it for £4000. He made a £1000 profit (4000—3000 = 1000)

Loss is losing money. E.g. Sam bought a car for £3000 and sold it for £2000. He made a £1000 loss (2000—3000 = -1000)

4. Multiplication and Division

Product is when you multiply two or more numbers together.

e.g. 5 x 7 = 35 35 is the product

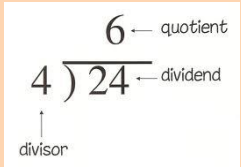
Multiplication is **commutative** and **associative**

6 x 4 = 24 4 x 6 = 24 , (7 x 2) x 3 = 7 x (2 x 3)

Dividend is the number that is being divided.

Divisor is the number that you are dividing by.

Quotient is the result of a division. Division is not commutative .



10 ÷ 2 = 5 and 2 ÷ 10 = 0.2

Items or numbers placed in rows and columns are called an **array.**

5. Factors and Multiples

The **factors** of a number are the numbers that divide into it without leaving any remainders. E.g. factors of 24 are 1, 2, 3, 4, 6, 8, 12, 24.

Highest common factor (HCF) is the greatest number that is a factor of two or more numbers.

Multiples of a number are found by multiplying that number by integers. e.g. the multiples of 4 are 4, 8, 12, 16….

Lowest common multiple (LCM) is the lowest number that is a multiple of two or more numbers.

6. Metric Units

Metric units are units that use powers of ten

Prefix is a word at the front of another word that changes its meaning

Prefix	Meaning
Milli	$\frac{1}{1000}$
Centi	$\frac{1}{100}$
Deci	$\frac{1}{10}$
Deca	10
Hecto	100
Kilo	1000

Units of Length:
Millimetre (mm) - thickness of a credit card
Centimetre (cm) – width a paper clip
Metre (m) – width of a school desk
Kilometre (km) – around the length of ten football pitches

Units of Weight:
Gram (g) – about the weight of one paper clip
Kilogram (g) - weight of a bag of sugar

Units of Capacity:
Millilitre (ml) - tip of a teaspoon
Litre (L) – approximately two pints of milk