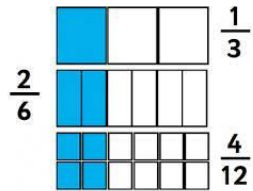
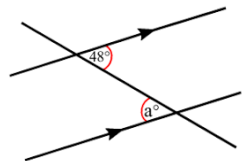


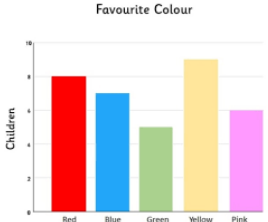
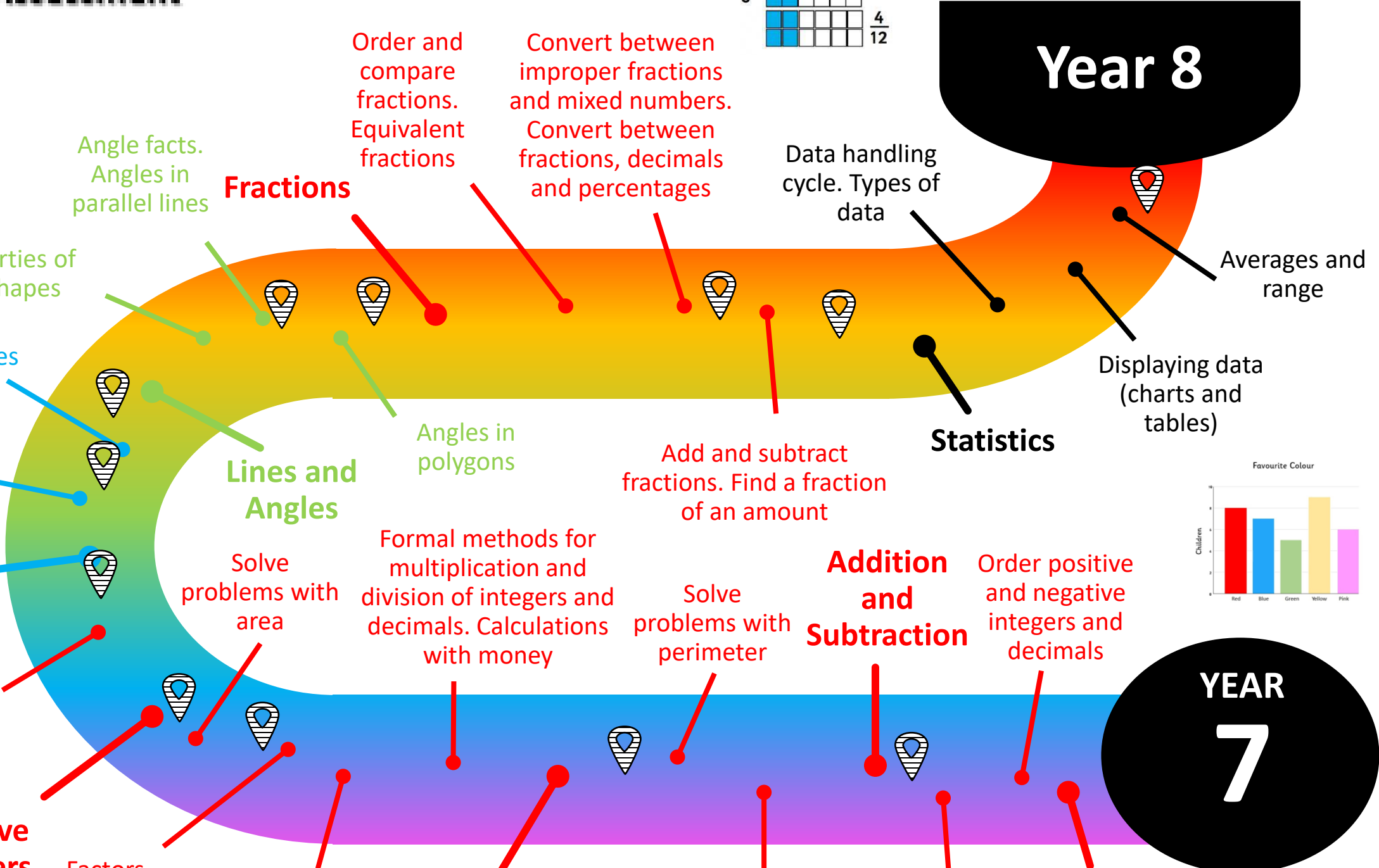
# Year 7 Learning Journey

Mathematics Learning Journey

**Key:**  
Assessment



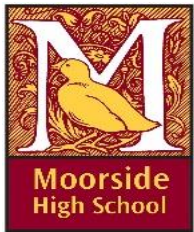
**Year 8**



**YEAR 7**

	M	HTh	TTh	T	H	T	O	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
Millions	0	0	0	0	0	0	0	0	0	0
Hundred Thousands										
Ten Thousands										
Thousands										
Hundreds										
Tens										
Ones										
Tenths										
Hundredths										
Thousandths										





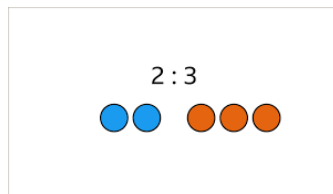
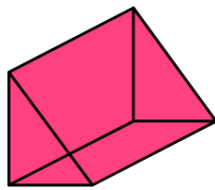
# Year 8 (F) Learning Journey

Mathematics

Learning Journey

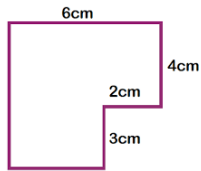


**Key:**  
Assessment



**Year 9**

**YEAR 8**



Perimeter and area of polygons and circles

Volume of prisms and basic surface area

Ratio and proportion

Powers and roots

Calculations with money

Symmetry and transformations

Fractions, decimals and percentages

Converting units

Linear sequences, recognise other sequences

Prime factor decomposition, HCF and LCM

Rounding and estimation

Percentage increase/decrease

Coordinates and linear graphs

Fractions to decimals

Solving basic linear equations

Time, reading timetables

Probability

Averages and range from lists of numbers

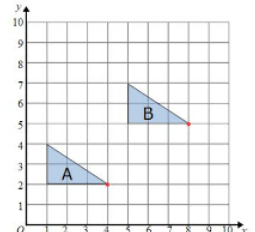
Representing data in statistical diagrams

Compare fractions, operations with fractions, including mixed numbers

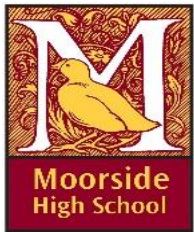
Angle facts and bearings

Expanding a single bracket and factorising

Operations with decimals and negative numbers, multiplication and division facts



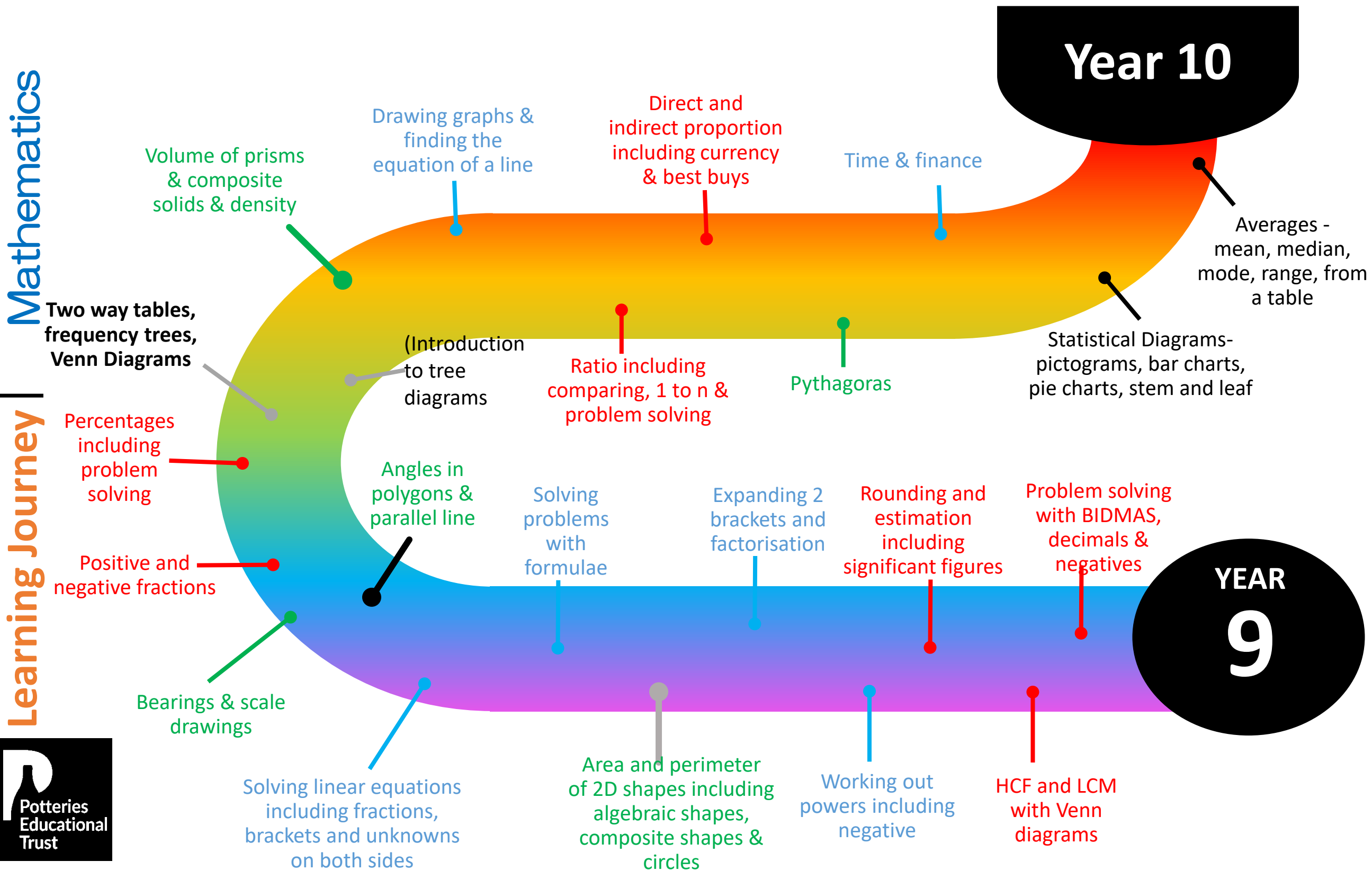
<b>mean</b> The mean is the average or mean. Add up all the values and divide by the number of values. Example: 2, 3, 5, 7, 8 $\frac{2+3+5+7+8}{5} = \frac{25}{5} = 5$ The mean is 5.	<b>median</b> The median is the middle value. Put all the values in order. Example: 2, 3, 5, 7, 8 The middle value is 5. The median is 5.
<b>mode</b> The mode is the most frequent value. Count how many of each value appear. Example: 2, 3, 3, 5, 5, 7, 8 The number 3 appears twice and the number 5 appears twice. The modes are 3 and 5.	<b>range</b> The range is the difference between the highest and lowest values. Example: 2, 3, 5, 5, 7, 8 The highest value is 8 and the lowest value is 2. The range is $8 - 2 = 6$ .

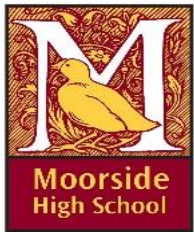


# Year 9F Learning Journey

Mathematics

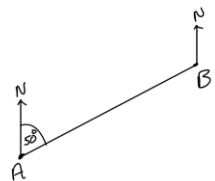
Learning Journey





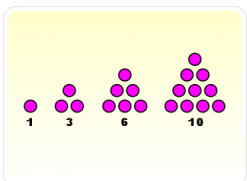
# Year 10F Learning Journey

**Key:**  
Assessment



**Year 11**

Mathematics  
Learning Journey



Expanding brackets & factorisation including quadratics

Problem solving with angles including polygons, parallel lines & bearings

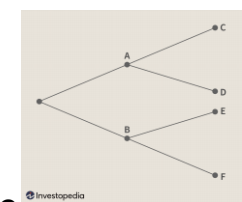
Solving simultaneous equations by elimination, substitution & graphically

Constructions & loci

Linear sequence, nth term & special types of sequence

Transformations, identifying similar & congruent shapes

Scatter graphs, frequency polygons, time series, pie charts & averages including grouped frequency tables



Year 10 Exams

Percentages including reverse compound interest and percentage change

Constructing & solving linear equations and linear inequalities

Fractions, indices & standard form

Probability including tree diagrams, expectation & Venn diagrams

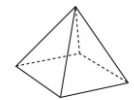
Surface area

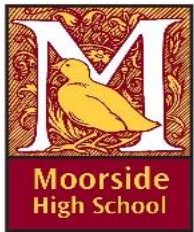
Pythagoras & trigonometry i

Drawing linear, non-linear graphs & real life graphs

Problem solving with ratio & proportion, conversion graphs, currency and best buys

**YEAR 10**



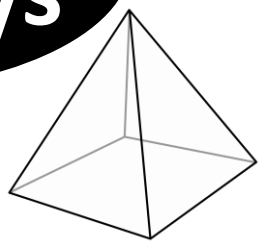


# Year 11 Foundation Learning Journey

**Key:**  
Assessment

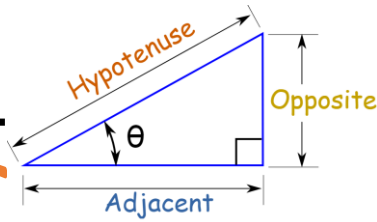
$$\begin{aligned} (1) & 8x + 2y = 46 \\ (2) & 7x + 3y = 47 \end{aligned}$$

## Future Pathways



Mathematics  
Learning Journey

**Loci**  
Construct the locus of points that follow a rule  
To solve problems using Loci



**Simultaneous equations**  
Using the elimination method to solve simultaneous equations

**Area and Volume**  
Area of named and compound 2D shapes inc circles  
Volume and surface area of prisms, cones, pyramids and spheres

**Vectors**  
Calculate with column vectors  
Draw a resultant vector  
Solve simple vector geometry problems

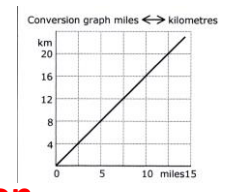
**Graphs**  
Solving simultaneous graphs graphically  
Finding the equation of a straight line  
Drawing non linear graphs (squared, cubed and reciprocal)

**Pythagoras and Trigonometry**  
Use Pythagoras to find missing sides  
Use trigonometry to find missing sides and angles  
Draw and calculate bearings. Problem solving

Mocks

YEAR  
**11**

**Proportion**  
Recipes and best buys  
Currency conversion



**Equations**  
Solving Quadratic equations by factorising and from a graph

Recognising graphs of direct and inverse proportion  
Solving direct and inverse proportion problems (non algebraic)

