

# Maths Learning Journey - Foundation Tier



## Year 11

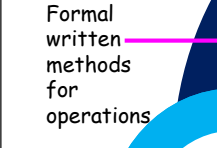
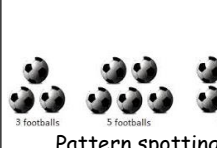
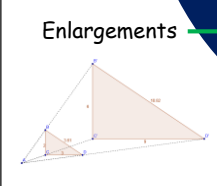
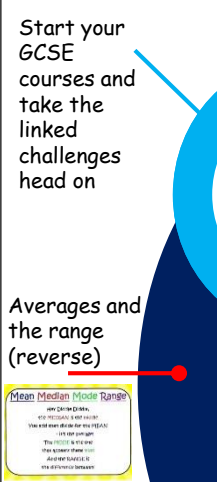
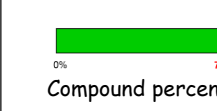
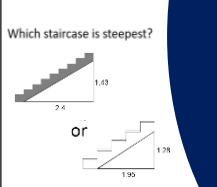
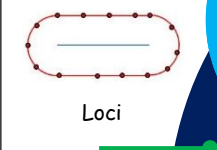
## Year 10

## Year 9

## Year 8

## Year 7

## Primary School



Sit SATS in Y6

**Solving quadratics**  
 $x^2 + 2x - 3 = 0$   
 $(x - 1)(x + 3) = 0$   
 $x - 1 = 0$  or  $x + 3 = 0$   
 $x = 1$  or  $x = -3$

**Arcs and sectors**

**Direct and inverse proportion (linear)**  
 $4a + 4b = 14$   
 $4a + 3b = 12$   
 $b = 2$

**Simultaneous equations**

**Surface area of curved 3D shapes**

**Tree diagrams**

**Volume of curved 3D shapes**

**Trigonometry**  
 $\sin \theta = \frac{\text{Opposite}}{\text{Hypotenuse}}$   
 $\cos \theta = \frac{\text{Adjacent}}{\text{Hypotenuse}}$   
 $\tan \theta = \frac{\text{Opposite}}{\text{Adjacent}}$

**Systems of equations**

**Vectors**

**Quadratics**

**Constructions**

**Speed, distance, time**

**Sampling**

**Gradients**  
 Which staircase is steepest?  
 OR

**Compound percentage change**

**Fractions of circles**

**Standard Form**

**Regular Polygons**

**Two way tables and Venn Diagrams**

**Similar triangles**

**Solving Linear Equations**  
 $3x + 5 = 0$   
 $3x = -5$   
 $x = -\frac{5}{3}$

**Pythagoras' Theorem**  
 $a^2 + b^2 = c^2$   
 $c = 6$   
 $d = 0.5$

**Substitution and Linear Graphs**  
 $\frac{10d + 4b}{7}$

**BIDMAS**  
 Brackets, Orders, Division or Multiplication, Addition or Subtraction

**Angles in parallel lines**

**Rounding and approximation**

**Simplifying fractions**  
 Reduce  $\frac{30}{45}$  to lowest terms.  
 step 1:  $\frac{30 \div 3}{45 \div 3} = \frac{10}{15}$   
 step 2:  $\frac{10 \div 5}{15 \div 5} = \frac{2}{3}$

**Difference in two areas**

**Surface area**

**n<sup>th</sup> term**

**Drawing charts and graphs**

**HCF and LCM**  
 $420 = 2 \times 2 \times 3 \times 5 \times 7$   
 $132 = 2 \times 2 \times 3 \times 11$

**Transformations**

**Distributive property**  
 $3(7 + 4) = 3(7) + 3(4)$   
 $= 21 + 12$   
 $= 33$

**Expectation**

**Fractions and Ratio**  
 boys : girls = 5 : 8  
 5 are boys, 8 are girls

**Whole Circles**

**Fundamental Theorem of Arithmetic**

**Probability of an event**

**Linear equations**  
 $w + x + y = 180^\circ$

**Concept of Area**

**Averages and the range**

**Coordinates**

**Congruency transformations**  
 Congruent: same size and shape  
 Non congruent: different sizes or shapes

**Fractions**

**Percentage of an amount**  
 555 (Share by 10): 55.5  
 5% (Share 10% by 2): 27.75  
 1% (Share 10% by 10): 5.55

**Pictograms/Tally charts**

**Simple FDP equivalents**  
 $\frac{53}{100} = 53\% = 0.53$

**Concept of Volume**

**Factors and multiples**  
 Factors of 6: 1, 2, 3, 6  
 Multiples of 6: 6, 12, 18

**Probability**

**Apply for a place at Bridlington School**

**Develop your ability to solve a wider range of problems**

**Extend your understanding of the number system and place value to include larger integers**

**Develop a sense of number**

**Meet our SLT and Pastoral leads through Y5 interviews**

**Develop confidence and mental fluency with whole numbers, counting and place value**

**Develop efficient written and mental methods of calculation**

**Develop the connections between multiplication and division with fractions, decimals, percentages and ratio.**

**Begin to recognise patterns**

**Develop a lifelong love of learning!**

'We hand on the torch of life' Bridlington School Motto