Year 10 Foundation - Mathematics

Links to careers/SMSC/Personal Development:

The National Career Service, Prospects, UCAS, STEM, MindTools, TeenLife and Mathematics Enrichment, UKMT Maths Challenge provides a wealth of information on various careers, including job profiles, salary expectations, and required qualifications. These resources can help Year 10 math students explore potential career paths, develop essential life skills, and foster personal growth. Encourage them to actively engage with these resources to prepare for their future academic and professional journeys. Year 10 work experience is about gaining valuable insights into the world of work, understanding the demands of different careers, and building skills and confidence that will serve you well in your future academic and professional endeavours.

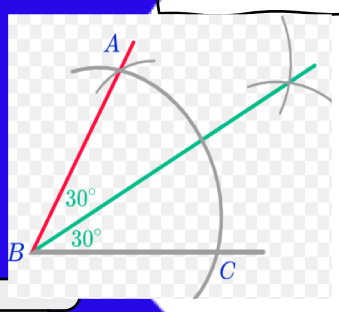
LEARNING JOURNEY



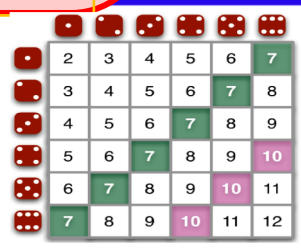
Constructions, loci and bearings

End of year Assessment

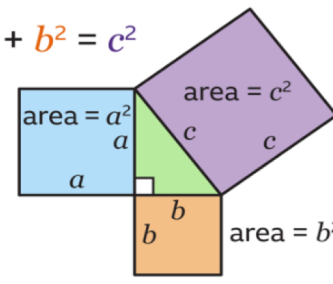
End of year review



Sample space diagrams



$a^2 + b^2 = c^2$



Multiplicative reasoning

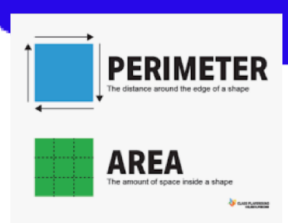
Pythagoras and trigonometry

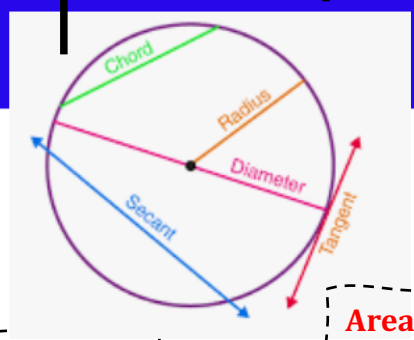
Probability

Trig ratios

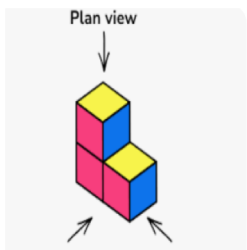
Angles

Home learning: Weekly on MathsWatch





Volume of prisms



Area of compound shapes

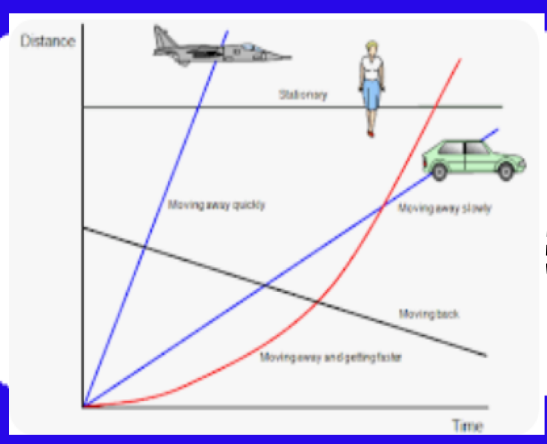
Perimeter and area

Circles

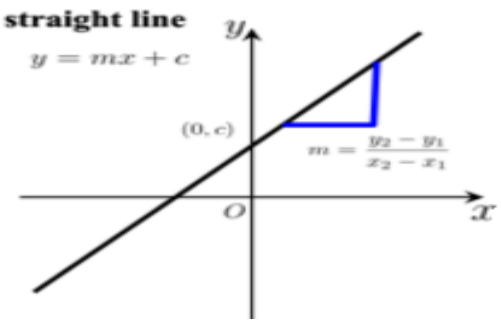
Area and perimeter of circles

3D and volume

Plans and elevation



Real-life graphs



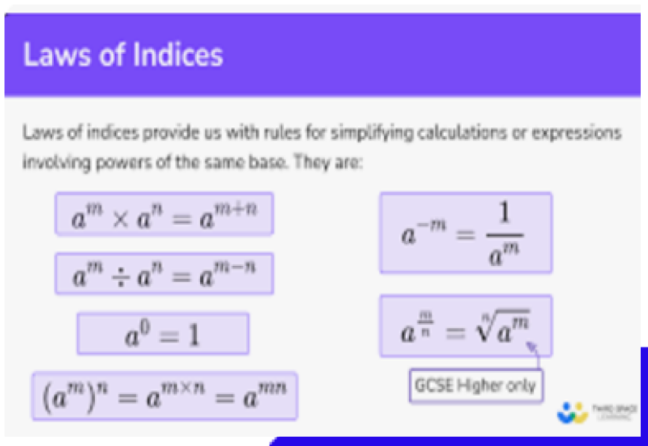
Progress check: fortnightly

Non-linear graphs



Straight-line graphs

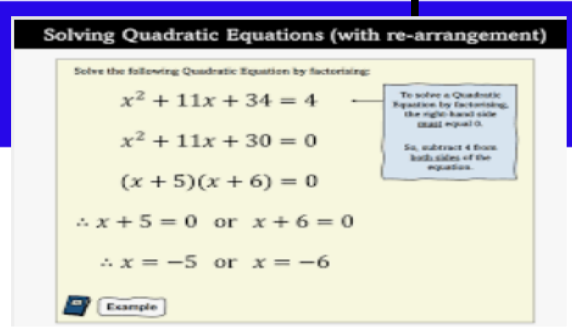
Coordinates and midpoint



Recipe problems

Rounding and estimation

Ratio & Proportion



Four operation with standard form

Home learning: Weekly on MathsWatch

Indices and standard form

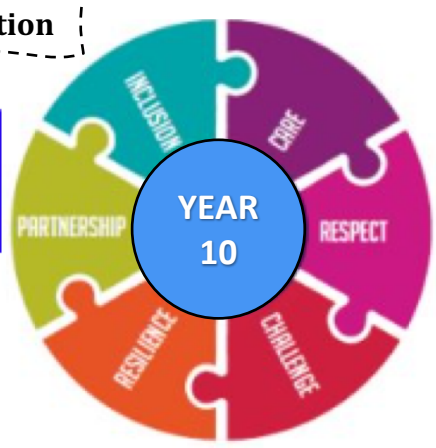
Percentage of amount

Fractions, decimals & percentages

Factorise Quadratics

Algebraic Manipulation

Key:
Unit Topics
Sub Topics



Year 10 learning summary: Rationale

In Year 10 we will explore the following:

Review Number Skills and FDP, Algebra Fundamentals- Geometry and Trigonometry, Statistics and Probability. Receive feedback on progress and areas for improvement. Set goals for Year 11 mathematics and beyond. By following this Year 10 learning journey, students will have a comprehensive understanding of fundamental mathematical concepts, strong problem-solving skills, and the necessary preparation for Year 11 and beyond, whether they plan to continue studying mathematics at an advanced level or pursue other academic or career pathways.

Year 10 Higher - Mathematics

Links to careers/SMSC/Personal Development:

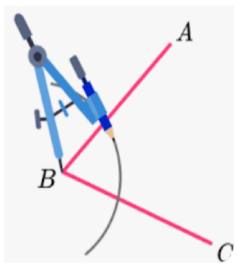
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LEARNING JOURNEY

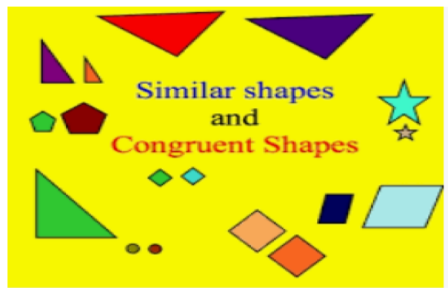


End of year Assessment

End of year review



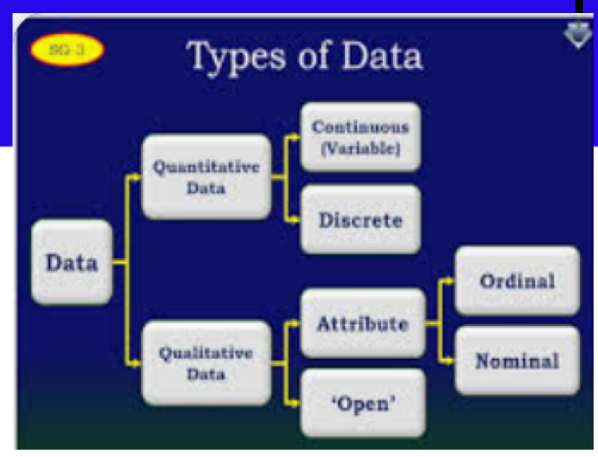
Similarity and congruence in 2D and 3D



Surface area & volume of 2D & 3D shapes

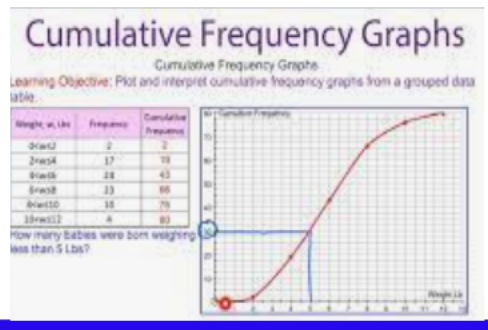
Progress check: fortnightly

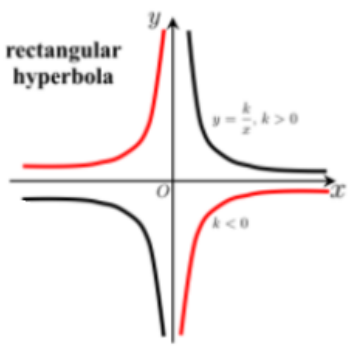
Home learning: Weekly on MathsWatch



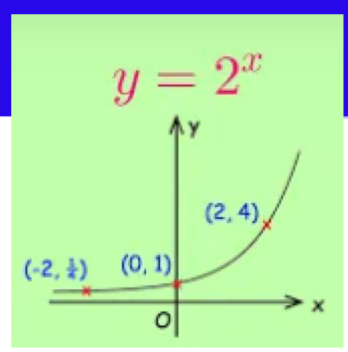
Collecting data

Cumulative frequency, box plots and histograms





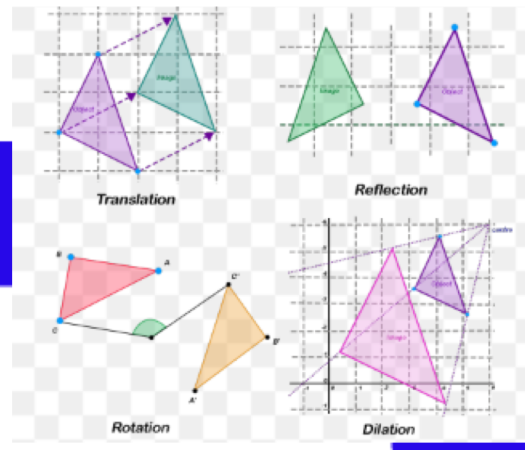
Reciprocal and exponentials graphs.

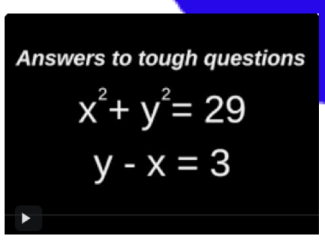


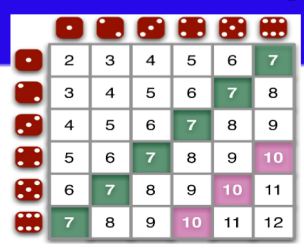
Algebraic proofs

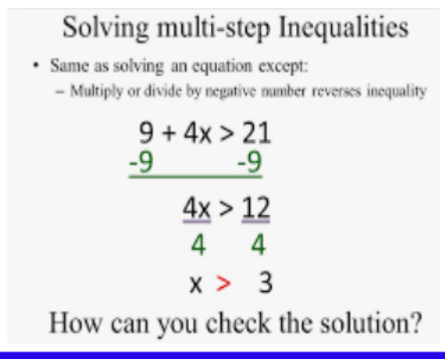
Constructions, loci and bearings

Enrichment: UKMT









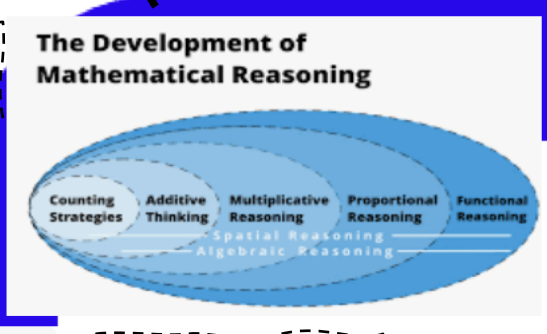
Solving Quadratic and simultaneous equations

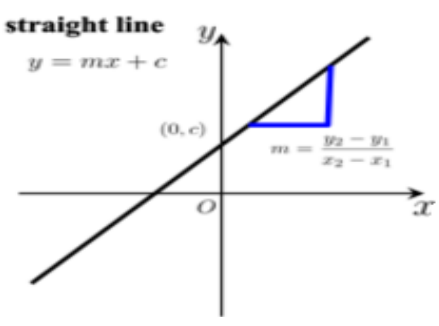
Bounds

Probability

Transformations

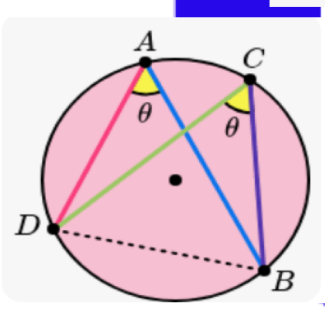
Multiplicative reasoning





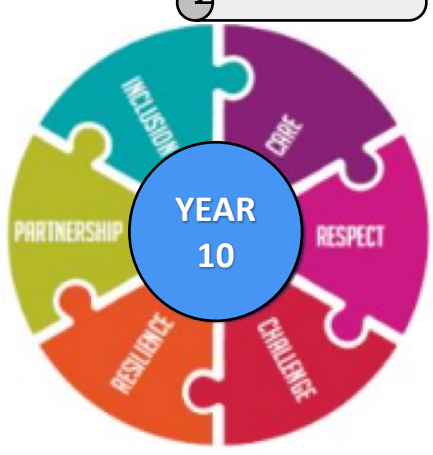
Linear graphs and coordinate geometry.

Home learning: Weekly on MathsWatch



Circle theorems

Inequalities



Year 10 learning summary: Rationale

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Receive feedback on progress and areas for improvement. Set goals for Year 11 mathematics and beyond. By following this Year 10 learning journey, students will have a comprehensive understanding of fundamental mathematical concepts, strong problem-solving skills, and the necessary preparation for Year 11 and beyond, whether they plan to continue studying mathematics at an advanced level or pursue other academic or career pathways.