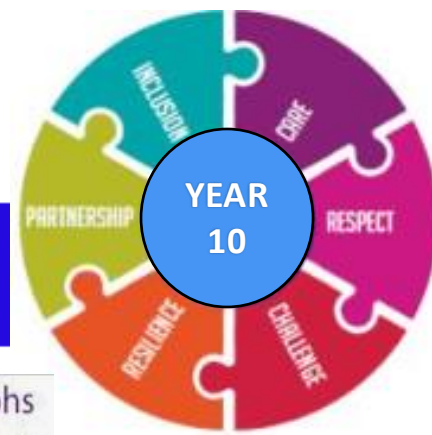


Year 10 Higher - Mathematics

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.

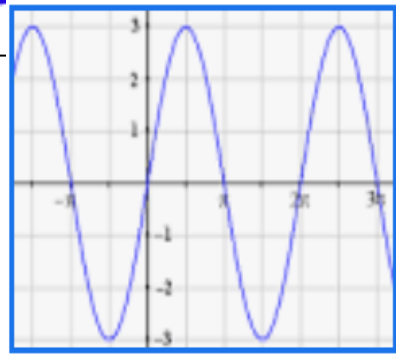
LEARNING JOURNEY



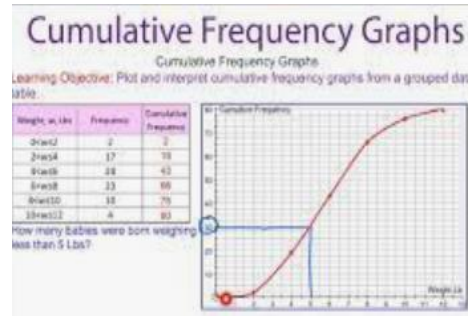
Further trigonometry

End of year Assessment

End of year review

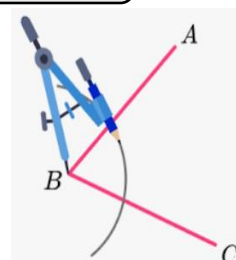


Graphs of trig functions

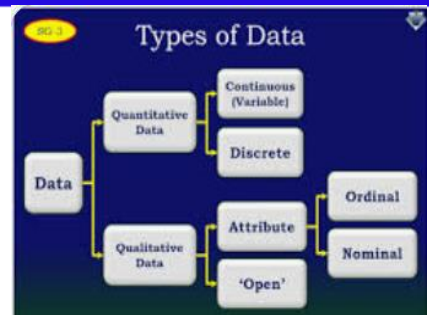


Cumulative frequency, box plots and histograms

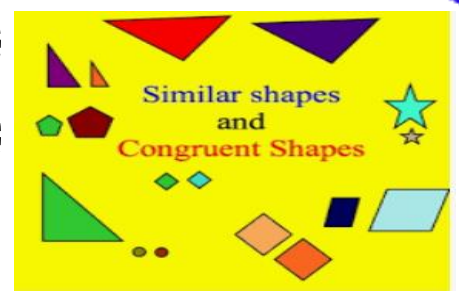
Home learning: Weekly on SPARX



collecting data

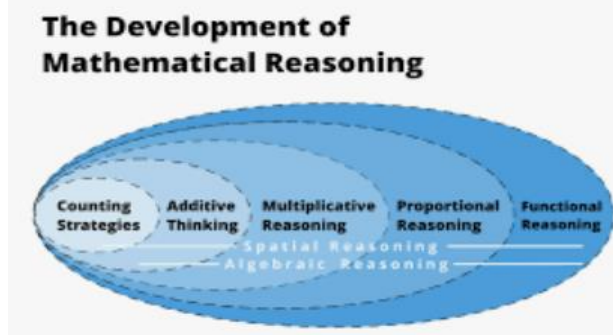


Similarity and congruence in 2D and 3D



Constructions, loci and bearings

Multiplicative reasoning



Inequalities

Solving multi-step Inequalities

- Same as solving an equation except:
 - Multiply or divide by negative number reverses inequality

$$9 + 4x > 21$$

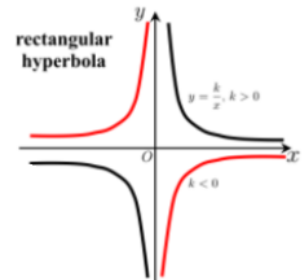
$$\underline{-9 \quad -9}$$

$$4x > 12$$

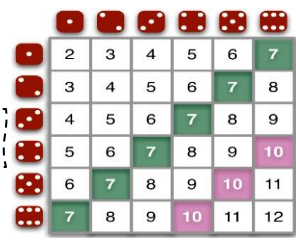
$$\underline{4 \quad 4}$$

$$x > 3$$

How can you check the solution?



Transformations



Probability

Answers to tough questions

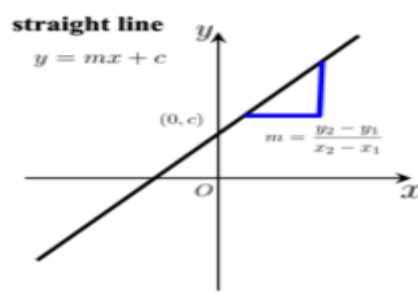
$$x^2 + y^2 = 29$$

$$y - x = 3$$

Solving Quadratic and simultaneous equations

Quadratic, cubic and other graphs.

Linear graphs and coordinate geometry.



Graphs: the basics and real-life

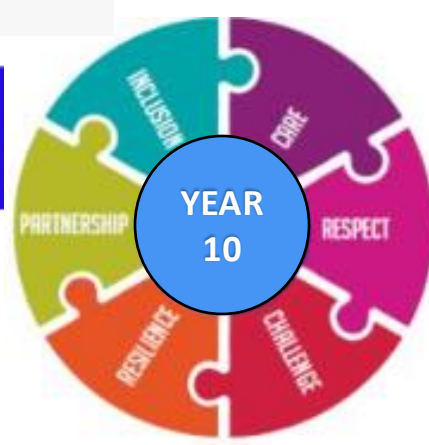
Real Life Graphs

LO: To be able to sketch and interpret graphs based on real life events. (Level 7-8)

QUICK START

Use the formula triangle to find the equation for each variable.

Home learning: Weekly on SPARX



Year 10 learning summary: Rationale

In Year 10 we will explore the following:

Algebra Fundamentals- Geometry and Trigonometry, Statistics and Probability. Review and Preparation-Review all topics covered during the year. Practice with past exam papers and sample questions. Work on time management skills for exams.

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.