# Maths- Y9



## MAGHULL HIGH SCHOOL - CURRICULUM MAP

HALF TERM 2 NOV - DEC	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7 and 8
TOPIC (S)	Rounding	Rounding	Sequences	Sequences HT 2 Assessment	Coordinates and Linear Graphs	Coordinates and Linear Graphs Angles	Angles
	Daniella -						

# Knowledge & Skills development

#### Rounding

- round numbers and measures to an appropriate degree of accuracy eg:
  - to a specified number of decimal places
- to a specified number of significant figures

use inequality notation to specify simple error intervals due to truncation or rounding apply and interpret limits of accuracy including upper and lower bounds

#### Sequences

generate terms of a sequence from either a term-to-term or a position-to-term rule recognise and use:

- sequences of triangular, square and cube numbers
- simple arithmetic progressions
- Fibonacci-type sequences
- quadratic sequences
- simple geometric progressions (r<sup>n</sup> where n is an integer and r is a rational number > 0)
- other sequences

deduce expressions to calculate the nth term of: linear sequences and quadratic sequences

### **Coordinates and Linear Graphs**

- work with coordinates in all four quadrants
- solve geometrical problems on coordinate axes
- plot graphs of equations that correspond to straight-line graphs in the coordinate plane
- use the form y = mx + c to identify parallel and perpendicular lines
- find the equation of the line through two given points, or through one point with a given gradient
- · identify and interpret gradients and intercepts of linear functions graphically and algebraically

#### Angles,

use conventional terms and notations:

- points, lines, vertices, edges, planes
- parallel lines, perpendicular lines
- right angles, polygons, regular polygons
- polygons with reflection and/or rotation symmetries

use the standard conventions for labelling and referring to the sides and angles of triangles

draw diagrams from written description apply the properties of:

- angles at a point
- angles at a point on a straight line
- vertically opposite angles

understand and use alternate and corresponding angles on parallel lines

Assessment /	Topic assessments	Self-assessment	Homework	Formative teacher assessment - verbal	Retrieval practice				
Feedback	·		(written and		·				
Opportunities			online)						
Cultural Capital	Fibonacci sequence and the Golden Ratio								
	Real life graphs- phone contracts (budgeting)								
SMSC / Promoting	Willingness to participate in, and respond to mathematical opportunities. Use of social skills in different contexts, including working and socialising								
British Values	with pupils from different religious, ethnic and socio-economic backgrounds.								
(Democracy, Liberty, Rule of Law, Tolerance & Respect)									
Reading opportunities	Murderous Maths								
Key Vocabulary	Round, significant figures, estimate, approximate, accuracy, bounds, limits, error interval, truncate, sequence, linear, quadratic, Fibonacci, arithmetic, geometric, nth term, coordinate, quadrant, plot, gradient, intercept, equation, parallel, perpendicular, angle, bearing, corresponding, alternate, co-interior, vertically opposite.								
Digital Literacy	Desmos								
Careers	Business, Finance, Architect, Building, Engineer.								