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Curriculum Planning Template

Subject: Maths Year 9 Ability Foundation

Half Term 4 and 5 / weeks	**Week 1-2**	**Week 3**	**Week 4-5**	**Week 6-8**	
Topic	Unit 8 - Angle Properties	Unit 9 - Sequences	Unit 10 – Handling Data	Extra – Problem Solving and Finance Module	Reteach and Retention
Topic overview **Pupils will learn…**	To be able to find missing angles in a series of scenarios through calculation understanding the importance of communicating reasons used	Students should be able identify sequences and the rules they work to.	Students should be able to use and understand a range data handling skill.	To understand maths in context within finance and how these impact in real life.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
Components	• To be able to measure, draw and label angles • To be able to find angles on a straight line and around a point • To be able to find angles around parallel lines • To be able to find angles in triangles and quadrilaterals • To be able to find the angles in regular polygons	• To know the difference between an arithmetic sequence and geometric • To know how to continue a sequence by looking at the differences between terms • To know how to find the nth term of a sequence • To be able to generate a sequence from a given rule • To be able to say if a number is within a sequence • To solve picture sequences by converting them to numbers	• To know that a bar chart must have gaps between the bars, a histogram has no gaps • When plotting frequency polygons the centre of the group is plotted. • To be able to draw and interpret pie charts. • To know if a scatter graph has positive or negative correlation. To be able to draw in a line of best fit • To be able to state the differences between two averages and say which is best	Students have the opportunity to work on a variety of problem-solving questions based on the previous units taught in year 9. The finance unit will introduce the pupils to general budgeting, loans, mortgages, tax and wage slips. Individual lessons on the above foster the conversations on the pupils understanding of these terms and importance of these after education.	Staff complete a program of adaptive reteaching on specific topics based on the individual/class needs within their groups. Regular assessments are used to identify gaps in learning. Any gaps found are then addressed in lessons to help support learning and retention. Clear areas for improvement are monitored by individual staff and at a departmental level.
What pupils should already know (prior learning components)	Pupils should come from primary and Y7/8 knowing the classification of different angle types. Pupils should be able to use a protractor to draw angles, know shape names and different types of quadrilaterals.	Good mental arithmetic is needed to start sequences. Students should be able to recognise patterns, know the importance of times tables (i.e the 3 times table is the sequence that increase by 3 each time).	Students should also be able to give a dataset that satisfies some constraints i.e gives 3 numbers that have a mean of 5 and a median of 3	Students will use the modelling and structuring of exam questions exemplified through the TFI questions throughout the year.	All the half term content will have been covered by this point. Staff will use departmental tracking documents to analyse the gaps in learning from the most recent assessments and all previous assessments. The ability to structure and breakdown a problem-solving question as exemplified in the TFI questions throughout the course.
Transferrable knowledge (skills)	The use of angle properties and skills are repeated through harder	The creation and use of formulae in this unit will be used in other	Although these are the basic data handling ideas the skills to be able to	Exam technique and the modelling of solutions helps pupils become	This activity should serve to highlight and address areas of

	problems involving straight lines and then potentially circle theorems for some students. The communication element of this unit is used frequently when students are asked for reasoning and justification in other types of questions.	contexts that are unrelated, however sequences will be extended into quadratics a Fibonacci.	understand these is a life skill. Within the course more difficult diagrams such as histograms and cumulative frequency. Ultimately these skills will be used throughout all data handling units up to and including KS5	logical thinkers able to break down large problems into smaller task. A skill that is transferable across all subjects.	weakness in teaching and learning or retention. This early intervention to understand specific key areas for improvement or development. This should help to build confidence and improve students' ability to answer these and directly sequential problems.
Key vocabulary pupil will know and learn	Drawing, Measuring, Acute, Obtuse, Reflex, Right angle, Intersecting lines, Straight line, Parallel lines, Angles at a point, Vertically opposite, Alternate angles, Corresponding angles, Isosceles, equilateral, Polygons, Parallelogram, Square, Rectangle, Trapezium, Rhombus, Pentagon, Hexagon, Octagon, Quadrilaterals, Interior, Exterior	Patterns, Sequence, Arithmetic, Geometric, Generate	Bar charts, Pie charts, Pictograms, Line graphs, Dual bar charts, Frequency polygons, Histograms, Relationships, Scatter graphs, Positive correlation, Negative correlation, Line of best fit, Box plots, Median, Range, Interquartile range	Mortgage, rent, Loans, income tax,	
Assessment activities	Homework 8 Angle Properties Year 9 Test 4 (Non Calculator) and 5 (Calculator)	Homework 9 Sequences Year 9 Test 4 (Non Calculator) and 5 (Calculator)	Homework 10 Handling Data Year 9 Test 4 (Non Calculator) and 5 (Calculator)		AFL and adaptive teaching will continue to support staff to assess the address areas.
Resources available	Mathswatch Clips 13, 46, 45, 120, 9, 10, 121,122, 123	Mathswatch Clips 37, 102, 103	Mathswatch Clips 15, 16, 64, 65, 128, 129, 62		Before any assessments are completed, revision and guidance materials are provided for students to assist in independent study.
Notes **Why this topic is important…**	Students must ensure they have a solid grasp of the use of angles and how these are draw and illustrated. This is then extended in to more theoretical ideas that use diagrams as representations of a situation. Mathematical reasoning is then used to find missing angles with justification a central idea to the unit.	The unit starts with students understanding that sequences have a link and how this can be used to find the next term. This is then moved to an algebraic form to allow a wide range of values to be found with ease. The use of the nth term to establish if a number is or is not in a given sequences provides the first elements to proof that will come much later in KS4.	Although the skills in this unit are relatively discreet with each diagram having its own methods an over arching link should be used to discuss the use of data illustration and its role in wider life. Other charts and diagrams will be added to the portfolio later.	This topic is a deep dive into maths in the real world through the eyes of usable finance. The ideas shared and discussed in this unit will hopefully allow students to apricate the usefulness of maths in key life mile stones that they are likely to meet.	This is an important point in the curriculum plan that enables individual teachers to review the gaps in learning for the classes they teach. The half-termly assessments are used to track students' progress and enable teachers to react quickly to any gaps in knowledge and prepare students for the next assessment. The feedback and modelling of the exam answers enables students to pick up exam techniques and the ability to communicate effectively.