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Curriculum Planning Template

Subject: Maths Year 8 Ability Mixed

Half Term 2 / weeks	**Half-term 2 (Week 9-10)**	**Half-term 2 (Weeks 11-12)**	**Half-term 2 (Week 13)**	**Half-term 2 (Week 14-15)**
Topic	Linear graphs	Inequalities	Retention and Re-teach	**Ratio** and proportion
Topic overview **Pupils will learn…**	To draw and understand straight line graphs understanding and using $y = mx + c$	To recall the knowledge gained when handling and solving equations and extend this into inequalities including diagrammatically.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed	To understand and use ratio in a range of context. To find and use percentages including percentage change.
Components	a) Students to be able to recap of negative numbers (all operations) b) Students to be able to substitute numbers into equations including negative numbers. c) Students to be able to change the subject of various equations and formulae. d) Students to be able to plot horizontal and vertical lines e.g. $y = -3$ $x = 4$ and lines such as $y = x$ e) Students to be able to substitute and plotting linear graphs from a table of values. f) Students be able to plot two linear graphs and understand the intersection between the two g) Students to be able to find the equation of the line from a diagram given	a) Recap previously covered algebra skills including forming algebraic expressions, the order of operations, collecting like terms, expanding and factoring, changing the subject of an equation, forming and solving linear equations. b) Students to be able to draw and represent inequalities on number lines. c) Student to be able to solve one and two step inequalities. d) Students to be able to solve an inequality with an x term on both sides of the inequality.	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.	a) Students be able express one quantity as a percentage of another. b) Students be able to calculate percentage increase and decrease using a calculator and without. c) Students be able to calculate the original amount when given part of it and its percentages. d) Students be able to calculate percentage change: increase/decrease/profit/loss using. e) Students be able to: calculate simple interest. Calculate compound interest. Calculate depreciation. f) Students be able to compare amounts and value for money using proportion and division g) Interpret what a:b and a:b:c means, simplifying ratios, including ratios where one or both units need converting. h) To share/divide and amount into a given ratio, when either the total, one person's share, or the difference in shares is known.
What pupils should already know (prior learning components)	Students should be confident in substituting positive and negative values into an equation/formula. Students should be able to plot co-ordinates in 4 quadrants and solve linear equations to find an unknown variable	Students will need knowledge of the inequality symbols and remember how to solve solving linear equations. Algebraic manipulation such as expanding brackets and collecting like terms will be needed as well as knowing how to find the equation of	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.	Students should be confident at fractions and percentages conversions and be able to calculate fractions of amounts.

		horizontal and vertical lines, equations of straight lines in the form y = mx +c		
Transferrable knowledge (skills)	The topic will build students' confidence with basic formula manipulation. It is where students begin making sense of the abstract algebra studied previously by linking it to visual representation. Elements of this unit will be built on when learning about quadratic graphs in y11. The gradient aspects will be used further in variable rates of change.	The topic will bring together the handling of algebra with the ability to show this information in diagrammatic form. This in turn will further support solving, drawing linear graphs and being able to identify regions.	This activity should serve to highlight and address areas of 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.	Ratio will be used in numerous multi step questions throughout the course. A grounding her is essential to accessing these questions. Percentage change will be used again in harder questions involving % change as well as with compound and simple interest.
Key vocabulary pupil will know and learn	Coordinates, querants, line segment, plot, draw, straight line, linear, interpreting, gradient, $y = mx + c$, $Y-$intercept, real life graph, simultaneous, solve, root, solution, subject.	Inequalities, number line, linear equations, graphical inequalities, solid lines, dotted lines, subject, region, bound		Ratio, simplify, express, divide, share, calculate, amount, fractions, percentages, difference
Assessment activities	Weekly Sparx homework linked to the curriculum. End of unit reflection. Summative assessment 8	Weekly Sparx homework linked to the curriculum. End of unit reflection. Summative assessment 8	AFL and adaptive teaching will continue to support staff to assess the address areas.	Weekly Sparx homework linked to the curriculum. End of unit reflection. Summative assessment 7
Resources available	Sparx codes a) M106, m288 b) M797 c) M184 d) M932 e) M932, m843 f) M658 a) M544	Sparx codes a) b) M384 c) M118 d) M732	Before any assessments are completed, revision and guidance materials are provided for students to assist in independent study.	Sparx codes a) M235 b) M437 c) M528 d) M533 e) U332 f) M681 g) M885 h) M525
Notes			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.	