Week	36	37	38	39	
W/C Date	25-Jun	2-Jul	9-Jul	16-Jul	
Topic	Calculating	Calculating	Visualising & Constructing	Visualising & Constructing	
Key Objectives	**Indices:** +ve, -ve, fractional, evaluating with and without a calculator	**Standard Form:** 4 operations, calculator methods, rounding (inc limits), truncating.	**Ruler and Compass Methods:** Perpendicular and angle bisectors, loci from a point and a line.	**Solving loci problems. Constructing 2-d shapes. Constructions involving plans and elevations.**	
Assessment		**BAM 9M1**		BAM 9M8	
Homework					

Mathematics Year 10 grade 4+ long term plan

	Assessment weeks
	Moderation week
	Data Capture
	STAR marking
	Exit Poll

Key Skills to be Covered

Number: Using +ve, -ve and fractional indices with and without a calculator, calculating in standard form with limits associated with rounding, direct and inverse proportionality.

Algebra: Identifying and using identities, multiplying linear expressions to form quadratics, factorising quadratics (coefficient of $x^2 = 1$), generating quadratic sequences, solving inequalities with brackets and unknowns on one or both sides, using straight line graphs, plotting quadratic cubic and reciprocal functions, forming and solving simultaneous equations graphically and algebraically.

Shape and Space: Ruler / compass construction methods and problem solving: including loci from a point and a line, the circle and its parts, surface area of prisms including the cylinder, Pythagoras' theorem in 2-d, congruency and similarity in triangles.

Data and Probability: Probability tree diagrams / sample spaces for dependent and independent events, scatter diagrams/lines of best fit – estimating.

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
W/C Date	03-Sep	10-Sep	17-Sep	24-Sep	01-Oct	08-Oct	15-Oct		29-Oct	05-Nov	12-Nov	19-Nov	26-Nov	03-Dec	10-Dec	17-Dec		
Topic	Algebraic Proficiency	Algebraic Proficiency	Algebraic Proficiency	RECAP	Consolidation & revision. Assessment 1	Proportional Reasoning	Proportional Reasoning		Proportional Reasoning	Sequences	Sequences	Equations & Inequalities	Equations & Inequalities	Calculating Space	Calculating Space	RECAP		
Key Objectives	**Identities. Multiplying linear expressions to form quadratics.**	**Factorising quadratics:** Form x^2+bx+c	**Equivalences. Expressions and formulae:** Using both to describe a situation.	**Indices. Standard Form. Constructions. Quadratics.**		**Understand proportionality:** Situations and graphically. **Conversions:** Density and speed.	**Problem solving, using expressions or formulae:** D&I prop. inc. compound measures.		**Identify congruency and similarity:** Finding missing lengths.	**Fibonacci sequences:** Recognise, use and generate types of F sequence.	**Quadratics:** Explore and generate Qs using next term, nth term or a written rule.	**Solving inequalities:** Unknown on one side, inc. set notation & number line.	**Solving inequalities:** Unknown on 2 sides; with brackets and –ve terms.	**The circle:** Definitions. **Arc length,: Sector area (and angle):** Both in terms of ∏.	**Surface area:** Prisms to include the cylinder	**Indices/s.form. Quadratics. Proportionality Inequalities.**		
Assessment		**BAM 9M2**	BAM 9M3		Test 1				BAM 9M7		GCSE Questions		**BAM tbc**		BAM 9M10			
Homework																		

Week	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
W/C Date	07-Jan	14-Jan	21-Jan	28-Jan	04-Feb	11-Feb		25-Feb	04-Mar	11-Mar	18-Mar	25-Mar	01-Apr	08-Apr		
Topic	Calculating Space	Assessment & Conjecturing	Conjecturing	Algebraic Proficiency	Algebraic Proficiency	RECAP		Algebraic Proficiency	Algebraic Proficiency	Equations & Inequalities	Equations & Inequalities	Equations & Inequalities	RECAP	RECAP		
Key Objectives	**Pythagoras' Theorem:** Calculating hypotenuse and a shorter side in 2-d.	**Congruency:** Know/use the 4 rules for congruency. Problem solving.	**Similarity:** Know how to find and use the multiplier to solve simple problems.	**Linear functions:** Identify / use the gradient / intercept of a line; y=mx+c	**Equation of a line:** Through 1 point with gradient. Through 2 points.	**Proportionality. The circle. Surface area. Pythagoras.**		**Rates of change:** Interpreting real life graphs.	**Plotting functions:** Quadratics, cubics and reciprocals	**Simultaneous Equations:** Approx. solutions from a graph, algebraic + or -.	**Simultaneous Equations:** + and/or -. Multiplying one equation with + or -.	**Simultaneous Equations:** Multiplying with + and/or -. Derive, solve and interpret solutions.	**Transformations:** Reflection, Rotation, Translation including column vectors, Enlargement with appositive SF	**Pythagoras. Congruency and similarity. Linear equations. Plotting functions.**		
Assessment	**BAM 9M11**		BAM 9M12		**BAM 9M4**				**BAM 9M6**			**BAM 9M5**				
Homework																

	35	36	37	38	39	40	41	42	43	44	45	46	46
W/C Date	29 Apr	06-May	13-May	20-May		03-Jun	10-Jun	17-Jun	24-Jun				
Topic	Assessment Understanding Risk	Understanding Risk	Presenting Data	Presenting Data		Revision and Assessment	Assessment and review of papers	Intervention and consolidation from mocks.					
Key Objectives	**Probability:** Independent / dependent events: Constructing tree diagrams/ sample space.	**Probability tree diagrams:** Using tree diagrams to solve a range of problems.	**Time series graphs and Compound bar charts**. **Interpreting range of graphs/charts.**	**Scatter diagrams and correlation. Line of best fit:** Estimating values (with limitations).		Full GCSE mock higher papers	Full GCSE mock higher papers	Tailored feedback and teacher led interventions in connection with strengths and weaknesses in first half of mock exam papers.					
Assessment		BAM 9M13											
				GCSE Practice Papers Set 1									