

Scheme Of Work 2020-2021

Subject: Maths

Year Group: 9 (Year1 of 3)

Specification: Edexcel Higher GCSE

Active Learning Opportunities

Stretch & Challenge (NACE)

Higher

Lesson No	Topic & Objectives	Key Activities & Specialist Terminology	Big Think Q's & Stretch	GCSE Q Stem	Homework	Lit Num SMSC Codes
	Construct and use back-to-back stem and leaf diagrams.	3.1 Statistical diagrams 1	Create a hypothesis and prove with the use of data presented in different types of graph. Evaluate your findings giving a conclusion on which graphic representation of data works best.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Construct and use frequency polygons and pie charts.	Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i>			Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4,So7,C5,

	Plot and interpret time series graphs.	3.2 Time series			TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Use trends to predict what might happen in the future.	Do Now: 5-A-Day Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc		Plot a Time series graph for your commute to school.		Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement			Pixi Booklet	So4, So7, C5,
	Plot and interpret scatter graphs.	3.3 Scatter graphs		Create a hypothesis and prove with the use of data presented in different types of graph. Evaluate your findings giving a conclusion on which graphic representation of data works best.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Determine whether or not there is a linear relationship between two variables.	Do Now: 5-A-Day Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc				Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement			Pixi Booklet	So4, So7, C5,

	<p>Draw a line of best fit on a scatter graph.</p> <p>Use the line of best fit to predict values.</p>	<p>3.4 Line of best fit</p> <p>Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i></p>	<p>Calculate the:</p> <ol style="list-style-type: none"> 1. Mode 2. Median 3. Mean 	<p>TEQ - Show understanding of worded questions and how marking schemes test working practices</p>	<p>Monopolise your homework Sheet 3</p> <p>Monopolise your homework Sheet 3</p>	<p>So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9</p> <p>So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9</p>
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4,So7,C5,
	<p>Decide which average is best for a set of data.</p> <p>Estimate the mean and range from a grouped frequency table.</p>	<p>3.5 Averages and range</p> <p>Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i></p>	<p>Define and give an example of the following types of data:</p> <ul style="list-style-type: none"> • qualitative data • quantitative data • discrete data - • continuous data 	<p>TEQ - Show understanding of worded questions and how marking schemes test working practices</p>	<p>Monopolise your homework Sheet 3</p> <p>Monopolise your homework Sheet 3</p>	<p>So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9</p> <p>So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9</p>

	Find the modal class and the group containing the median.		<ul style="list-style-type: none"> • primary data - • secondary data 		Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4,So7,C5,
	Construct and use two-way tables.	3.6 Statistical diagrams 2	Create a hypothesis and prove with the use of data presented in different types of graph. Evaluate your findings giving a conclusion on which graphic representation of data works best.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Choose appropriate diagrams to display data.	Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i>			Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Recognise misleading graphs.				Monopolise your homework Sheet 3	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4,So7,C5,

Lesson No	Topic & Objectives	Key Activities & Specialist Terminology	Big Think Q's & Stretch	GCSE Q Stem	Homework	Lit Num SMSC Codes
	<p>Add, subtract, multiply and divide fractions and mixed numbers.</p> <p>Find the reciprocal of an integer, decimal or fraction.</p>	<p>4.1 Fractions</p> <p>Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i></p>	<p>What is 3 as a fraction of 15? What is $\frac{3}{4}$ of 1?</p> <p>Simplify . 100/200</p>	<p>TEQ - Show understanding of worded questions and how marking schemes test working practices</p>	<p>Monopolise your homework Sheet 4</p> <p>Monopolise your homework Sheet 4</p>	<p>So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9</p> <p>So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9</p>
S & C	<p>Pixl Maths Aiming for grade +</p> <p>Write ratios in the form 1 : n or n : 1.</p> <p>Compare ratios.</p>	<p>Dependant on aiming grade</p> <p>4.2 Ratios</p> <p>Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i></p>	<p>Related question teacher judgement</p> <p>Demonstrate the use of the unitary method to find how to modify a recipe to differing numbers of diners</p>		<p>Pixi Booklet</p> <p>Monopolise your homework Sheet 4</p> <p>Monopolise your homework Sheet 4</p>	<p>So4, So7, C5,</p> <p>So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9</p> <p>So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9</p>

	Find quantities using ratios.		numbers of units. Example a small family of 4 or the school of 876 students and 56 staff.	and how marking schemes test working practices	Monopolise your homework Sheet 4	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Solve problems involving ratios.				Monopolise your homework Sheet 4	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4,So7,C5,
	Convert between currencies and measures.	4.3 Ratio and proportion	Looking at current exchange rates and prices what countries are cheapest for different items 1) a phone 2) trainers 3) a sports team shirt/jersey 4)	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 4	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Recognise and use direct proportion.	Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i>			Monopolise your homework Sheet 4	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9

	Solve problems involving ratios and proportion.		Mcdonalds Big Mac Meal.		Monopolise your homework Sheet 4	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4,So7,C5,
	Work out percentage increases and decreases. Solve real-life problems involving percentages.	4.4 Percentages Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i>	In April 2004, the population of the European Community was 376 million. In April 2005, the population of the European Community was 451 million. Work out the percentage increase in population.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 4 Monopolise your homework Sheet 4	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9 So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4,So7,C5,
	Work out percentage increases and decreases.	4.5 Fractions, decimals and percentages	In April 2004, the population of the European Community was 376 million. In April 2005, the population of the	TEQ - Show understanding of worded questions	Monopolise your homework Sheet 4	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9

	Solve real-life problems involving percentages.	Do Now: 5-A-Day Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc	European Community was 451 million. Work out the percentage increase in population.	and how marking schemes test working practices	Monopolise your homework Sheet 4	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4, So7, C5,
Lesson No	Topic & Objectives	Key Activities & Specialist Terminology	Big Think Q's & Stretch	GCSE Q Stem	Homework	Lit Num SMSC Codes
	Derive and use the sum of angles in a triangle and in a quadrilateral. Derive and use the fact that the exterior angle of a triangle is equal to the sum of the two opposite interior angles.	5.1 Angle properties of triangles and quadrilaterals Do Now: 5-A-Day Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc	Use parallel lines to prove the internal angles of a triangle	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5 Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9 So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4, So7, C5,

	Calculate the sum of the interior angles of a polygon. Use the interior angles of polygons to solve problems.	5.2 Interior angles of a polygon Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i>	Recall the number of interior angles in different polygons. Identify exterior and interior angles. This is a 10 sided polygon, show the steps to calculating the value of x: "	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
					Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4, So7, C5,
	Know the sum of the exterior angles of a polygon. Use the angles of polygons to solve problems.	5.3 Exterior angles of a polygon Do Now: 5-A-Day Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i>	Using angle facts to find missing angles. Write an equation to solve a problem.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
					Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4, So7, C5,

	Calculate the length of the hypotenuse in a right-angled triangle. Solve problems using Pythagoras' theorem.	5.4 Pythagoras' theorem 1 Do Now: 5-A-Day Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc	Identify different types of triangles. Can you display this in categorising thinking map? Know that the angles in a triangle sum to _____.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5 Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9 So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4, So7, C5,
	Calculate the length of a shorter side in a right-angled triangle. Solve problems using Pythagoras' theorem.	5.4 Pythagoras' theorem 1 Do Now: 5-A-Day Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc		TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5 Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9 So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4, So7, C5,

	Use trigonometric ratios to find lengths in a right-angled triangle.	5.6 Trigonometry 1		TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Use trigonometric ratios to solve problems.	Do Now: 5-A-Day Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc		TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4, So7, C5,
	Use trigonometric ratios to calculate an angle in a right-angled triangle.	5.7 Trigonometry 2		TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Find angles of elevation and angles of depression.	Do Now: 5-A-Day Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc	In words describe a method for remembering the exact values of the	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9

	Use trigonometric ratios to solve problems.		exact values of the sine cosine and tangent ratios of common angles.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Know the exact values of the sine, cosine and tangent of some angles.			TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 5	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
S & C	Pixl Maths Aiming for grade +	Dependant on aiming grade	Related question teacher judgement		Pixi Booklet	So4,So7,C5,