

Scheme Of Work 2020 - 2021

Subject: Maths

Year Group: 7

Specification: KS3 Maths Progress Delta

Active Learning Opportunities

Year 1

Lesson No	Topic & Objectives	Key Activities & Specialist Terminology	Big Think Q's & Stretch	GCSE Q Stem	Homework	Lit Num SMSC Codes
12hrs	Analysing & Displaying Data					
	Delta 3: 4.1 STEM: Data collection	Identify sources of primary and secondary data.	What are the benefits of each type of data? And where would you use each?	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i>	Choose a suitable sample size. Understand how to reduce bias in sampling and questionnaires.	What circumstances would make a bias sampling?	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9

		Identify a random sample.				
1.1 Two-way tables and bar charts		Use two-way tables.	Draw an accurate two way table , showing all averages.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc		Interpret and draw dual bar charts and compound bar charts.	Collect multiple types of data from charts.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
1.2 Averages and range		Choose the most appropriate average for a set of data.	How can the use of the wrong type of average be beneficial? Think advertising. See if you can find an example.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9

3hrs	<p>Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc</p>	Find the mode, median, mean and range for a set of data.		TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
	<p>Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc</p>	Compare sets of data using averages and the range.		TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
	1.4 More graphs	Interpret and draw line graphs.	Answer exam questions on interpreting data from line graphs	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9

3hrs	<p>Do Now: Numeracy Ninja</p> <p>Plenary: TEQ (Typical exam question)</p> <p>Show me boards, Coaching, Independent Study, Student teachers etc</p>	Recognise when a graph is misleading.	List all possible ways that people could mislead people with graphs , charts and averages	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	1.5 Pie charts	Draw and interpret pie charts.	Calculate angles from data given in a pie chart? Use angles to find percentages and sample size	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9
	1.6 STEM: Scatter graphs and correlation	Graph paper and draw scatter graphs.	Draw scatter graphs that show and compare different types of data.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7 , M1, C3, C5, C6 , Sp2 Sp9

	<p>Do Now: Numeracy Ninja</p> <p>Plenary: TEQ (Typical exam question)</p> <p>Show me boards, Coaching, Independent Study, Student teachers etc</p>	Describe the correlation between two sets of data.	Compare data from different types of table and graph	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 1	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
		Draw a line of best fit and use it to estimate values.		TEQ - Show understanding of worded questions and how marking schemes test working practices		Monopolise your homework Sheet 1
Lesson No	Topic & Objectives	Key Activities & Specialist Terminology	Big Think Q's & Stretch	GCSE Q Stem	Homework	Lit Num SMSC Codes
12hrs	Number Skills					

	2.1 Factors, primes and multiples
2hrs	
2hrs	<p>Do Now: Numeracy Ninja</p> <p>Plenary: TEQ (Typical exam question)</p> <p>Show me boards, Coaching, Independent Study, Student teachers etc</p>

Understand the difference between multiples, factors and primes.
Find all the factor pairs of any whole number.
Find the HCF and LCM of two numbers.

Create an exam style LCM question to help you recognise them in exams	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
	TEQ - Show understanding of worded questions and how marking schemes test working practices		So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
Use prime numbers and Venn diagrams to find the HCF and LCM of 6478 and 7894	TEQ - Show understanding of worded questions and how marking schemes test working practices		So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9

1 hr	2.2 Using negative numbers	Add, subtract, multiply and divide positive and negative numbers.	Create the hardest possible question on this topic	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
2hrs	2.3 Multiplying and dividing	Use mental and written strategies for multiplication.		TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
	Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc	Divide a 3-digit integer by a single or 2-digit integer.	873/ 43	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9

	2.4 Squares and square roots	Use index notation for squares and square roots.	FLIPPED LEARNING - Investigate Surds	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
<p>Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) Show me boards, Coaching, Independent Study, Student teachers etc</p>	Calculate with squares and square roots.			TEQ - Show understanding of worded questions and how marking schemes test working practices		So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
	2.5 More powers and roots	Carry out calculations involving squares, cubes, square roots and cube roots.	List the first 20 cubes and square numbers	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9

2hrs	Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i>	Use factorising to work out square roots and cube roots.		TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
		Solve word problems using square roots and cube roots.		TEQ - Show understanding of worded questions and how marking schemes test working practices		Monopolise your homework Sheet 2
1hr	2.6 Calculations		Estimate answers to complex calculations.	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9

	<p>Do Now: Numeracy Ninja</p> <p>Plenary: TEQ (Typical exam question)</p> <p>Show me boards, Coaching, Independent Study, Student teachers etc</p>	Carry out calculations involving brackets.	FLIPPED LEARNING - What is expanding brackets?	TEQ - Show understanding of worded questions and how marking schemes test working practices	Monopolise your homework Sheet 2	So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
Lesson No	Topic & Objectives	Key Activities & Specialist Terminology	Big Think Q's & Stretch	GCSE Q Stem	Homework	Lit Num SMSC Codes
12hrs	Equations, functions And Formulae					
	3.1 Simplifying algebraic expressions	Simplify expressions by collecting like terms.	johns age is N His sister ann is 4 times his age . His brother brian is 6 years younger than ann. Colin is half Brians age. Write an expression in terms of	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

	<p>3.2 Writing algebraic expressions Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i></p>	Construct expressions using four operations.	N for Ann Brian & Colin's ages	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
	<p>3.3 STEM: Using formulae Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i></p>	Substitute into formulae.		TEQ - Show understanding of worded questions and how marking schemes test working practices		So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
2hrs	<p>3.4 Writing formulae Do Now: Numeracy Ninja Plenary: TEQ (Typical exam question) <i>Show me boards, Coaching, Independent Study, Student teachers etc</i></p>	Derive formulae from a description.		TEQ - Show understanding of worded questions and how marking schemes test working practices		So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9

1hr	3.5 Brackets and powers	Expand expressions involving brackets.	Create the hardest possible question on this topic	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
		Substitute into expressions involving powers.		TEQ - Show understanding of worded questions and how marking schemes test working practices		So2, So6, So7, M1, C3, C5, C6, Sp2 Sp9
	3.6 Factorising expressions	Factorise an algebraic expression.	Write a how to guide on factorising.	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