

CURRICULUM MAP

Γerm	Core Year 7 KS2 Transition
<pre>KS2 Mathematics Endpoint:</pre>	Key Stage 1 and 2 National Curriculum:
With Papartment for Education Mathematics programmes of study: Layer stages 1 and 2 National curriculum in England September 2013	 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/hte/335158/PRIMARY_national_curriculum - Mathematics_220/14.pdf The national curriculum for mathematics aims to ensure that all pupils: become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking Assessment: KS2 Mathematics Assessment taken in May of the year students arrive at Uxbridge High School.
Autumn 1 Transition.	Assessment:
	Baseline Test to stream students. Feed Forward Period: -The first few weeks of year 7 will be off scheme of work as students complete a KS2 Feed Forward. During this period, teachers will be expected to use the KS2 data to plan lessons which take steps to address gaps in their students KS2 knowledge and, as a result, best prepare them for foundation mathematics.

The progressive, inclusive curriculum 'skills, knowledge and concepts: literacy, life skills and enrichment'

Tial	Core	Term	Higher
	Year 7		Year 7
Autumn 1	Unit of work: Unit 1 Analysing Data and Unit 2 Number Skills	Autumn 1	Unit of work: Unit 1 Analysing and Displaying Data and Unit
Literacy / numeracy foci	Assessment objectives	Literacy / numeracy foci	2 Number Skills.
Key definitions.	To be able to calculate averages	Key definitions.	Assessment objectives:
Oral and written interpretations	To be able to construct charts and tables for continuous and discrete	Oral and written interpretations and	To be able to construct and interpret graphs, charts and
and conclusions from data.	data	conclusions from data.	diagrams
Definitions in Knowledge Tests.	To be able to interpret representations of data.	Definitions in Knowledge Tests.	To find overages from data
Homework	Complete calculations with fluency involving all four operations	Homework	To initia averages from data.
A minimum of 2 Hegarty Maths	 To be able to find factors, multiples and primes. 	A minimum of 2 Hegarty Maths guizzes	• To calculate roots, powers and negatives.
quizzes every week.	Enrichment/life and work skills:	every week	To find factors and multiples.
Revisiting, revising, remembering	Students will complete a cross-curricular project organised with the	Revisiting revising remembering	• To write a number as a product of its primes.
opportunities	science department. Experiments will be carried out in Science and then	onnortunities	Enrichment/life and work skills:
Memri tasks on Hegarty Maths.	 Students will be exposed to graphs in a variety of contexts including 	Memri tasks on Hegarty Maths	• STEM: Science and Maths Collaboration during first part of
Starters based on key KS2	finance, environment etc.	Starters based on key KS2 knowledge	term. Cross-curricular investigation.
knowledge.	• See graphs in other contexts.	Recan/refresher task at the start of lesson	A small group of HAPs in Mathematics will attend a
Low-stakes knowledge tests	Finance: Time and Money	Low stakes knowledge tests at the end of	workshop day at Brunel University during the first term.
	Assessments Unit 1 and 2 Topic Test and Autumn 1 Assessment.	cosch upit	Assessments
	<u>reed Forward lessons</u> to improve student knowledge following Autumn 1		Unit Tests and Autumn 1 Assessment
Automa 2	dssessment.		Feed Forward lessons to improve student knowledge following
Autumn 2	Desimals and Measure		Autumn 1 assessment.
Literacy / numeracy foci		Autumn 2	Unit of work: Unit 3 Expressions and Unit 4 Fractions
Key definitions.	Assessment objectives:	Literacy / numeracy foci	Assessment objectives:
Oracy to present answers in the	To be able to expand, factorise and simplify expressions.	Key definitions.	 To factorise, simplify and expand expressions.
correct literate manner but also to	 To perform the four operations with decimals 	Oracy to present answers in the correct	To substitute positive integers, negative integers and
articulate problem solving.	To round to decimals and significant figures	literate manner but also to articulate	decimals into algebraic expressions.
Definitions in Knowledge Tests.	 To calculate perimeter and area of squares/rectangles 	problem solving.	• To compare, simplify and find fractions of amounts.
Homework	Enrichment/life and work skills	Definitions in Knowledge Tests.	To perform the four operations with fractions.
A minimum of 2 Hegarty Maths	STEM: Substitute into formula including speed, distance, time	Homework	Enrichment/life and work skills:
quizzes every week.	conversion formula from science such as Celsius \rightarrow Kelvin.	A minimum of 2 Hegarty Maths quizzes	STEM: fractional substitution. Kelvin \rightarrow Celsius and inverse.
Revisiting, revising, remembering	STEM: Metric and imperial	every week.	Numeracy drop-down day.
opportunities	Explore famous formula such as The Drake Equation.	Revisiting, revising, remembering	Assessments
Memri tasks on Hegarty Maths.	Numeracy drop-down day.	opportunities	Unit Tests and Autumn 2 Assessment
Starters based on key KS2	Assessments: Unit 3 and 4 Topic Tests and Autumn 2 Assessment	Memri tasks on Hegarty Maths.	Feed Forward lessons to improve student knowledge following
knowledge and previous topics.	Feed Forward lessons to improve student knowledge following Autumn 2	Starters based on key KS2 knowledge.	Autumn 2 assessment.
Low-stakes knowledge tests	assessment.	Recap/refresher task at the start of lesson.	
Key Interleaving: Expressions for		Low-stakes knowledge tests at the end of	
the perimeter and area of shapes.		each unit.	

[Ia]	Core	Term	Higher
	Year 7		Year 7
Spring 1	Unit of work: Unit 5 Fractions and Percentages and Unit 6 Probability	Spring 1	Unit of work: Unit 5 Angles and Shape and Unit 6 Decimals
	Assessment objectives:		Assessment objectives:
Literacy / numeracy foci	 To perform the four operations with fractions. 	Literacy / numeracy foci	To calculate angles in polygons, parallel lines and around a point
Key definitions.	To compare and simplify fractions.	Key definitions.	To complete calculations with decimals.
Oracy to present answers in the	To find fractions of amounts.	Oracy to present answers in the	Enrichment/life and work skills:
correct literate manner but also to	To calculate percentages of amounts	correct literate manner but also to	Decimals measures such as conversion between units.
articulate problem solving.	To understand and describe events using the language of	articulate problem solving.	Debate on the metric v. imperial units
Definitions in Knowledge Tests.	probability.	Definitions in Knowledge Tests.	History of the metric and imperial systems link to empire.
Homework	To calculate with probability.	<u>Homework</u>	Assessments:
A minimum of 2 Hegarty Maths	To complete sample space and list outcomes.	A minimum of 2 Hegarty Maths	Unit Tests and Spring 1 Assessment
quizzes every week.	Enrichment/life and work skills:	quizzes every week.	Feed Forward following Assessment to fill gaps in knowledge and skills.
Revisiting, revising, remembering	Key literacy involving fractions: denominator, numerator, divisor	Revisiting, revising, remembering	
opportunities	etc.	opportunities	
Memri tasks on Hegarty Maths.	<u>Percentages in everyday life.</u>	Memri tasks on Hegarty Maths.	
Starters based on key KS2	FINANCE: expected outcomes	Starters based on key KS2	
knowledge.	• Everyday situations. <u>The Monty Hall Dilemma</u> .	knowledge.	
Low-stakes knowledge tests	Assessments:	Low-stakes knowledge tests	
	Topic Tests and Spring 1 Assessment		
	Feed Forward following Assessment to fill gaps in knowledge and	Spring 2	Unit of work: Unit 7 Equations
	skills.		Assessment objectives:
Spring 2	Unit of work: Unit 7 Ratio and Proportion and Unit 8 Lines and Angles	Literacy / numeracy foci	To be able to form and solve equations.
	Assessment objectives:	Key definitions.	• End point: All students should be able to solve complex linear
Literacy / numeracy foci	To understand direct proportion and the unitary method of proportion	Oracy to present answers in the	equations. This will include equations with variables on both sides
Key definitions.	To simplify ratio	correct literate manner but also to	and brackets. This will include negative terms. An example endpoint
Oracy to present answers in the	To share an amount in a ratio	articulate problem solving.	equation would be "Solve 4(2-3x)=3-2(4x+2)
correct literate manner but also to	 To compare fractions and percentages as proportions 	Definitions in Knowledge Tests.	Enrichment/life and work skills
articulate problem solving.	To find angles in triangles, quadrilaterals, straight lines and around a	<u>Homework</u>	Interleave with unit 3 and with angles through forming and
Definitions in Knowledge Tests.	point.	A minimum of 2 Hegarty Maths	solving equations.
Homework	• To construct lines and angles.	quizzes every week.	<u>NRICH Activities</u>
A minimum of 2 Hegarty Maths	Enrichment/life and work skills:	Revisiting, revising, remembering	Assessments
quizzes every week.	<u>Cross-curricular: Technology, Art and Design with recipe and ratios</u>	opportunities	Unit 7 Test and Spring 2 Assessment
Revisiting, revising, remembering	SIEW: Calculating angles and constructions applicable to	Memri tasks on Hegarty Maths.	Feed Forward following Assessment to fill gaps in knowledge and skills.
opportunities	architecture, engineering and design.	Starters based on key KS2	
Memri tasks on Hegarty Maths.	Assessments:	knowledge.	
Starters based on key KS2	Topic Tests and Spring 2 Assessment.	Low-stakes knowledge tests	
	Feed Forward tollowing Assessment to till gaps in knowledge and skills		

	Core	Term	Higher
Summer 1 <u>Literacy / numeracy foci</u> Key definitions. Oracy to present answers in the correct literate manner but also to	 Year 7 Unit of work: Unit 9 Sequences and Line Graphs GCSE Assessment objectives: To find the next terms in a sequence, identify term to term rules and recognise if a term is in a sequence. To understand arithmetic, geometric and Fibonacci sequence. To plot linear graphs in the form v=mx+c. 	Summer 1 Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to	Year 7 Unit of work: Unit 8 Multiplicative Reasoning and Unit 9 Perimeter, Area and Volume Assessment objectives: • To recognise direct and inverse proportion. • To use the unitary method of proportion. • Use algebra to solve direct proportion
articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests	 To plot linear graphs in the form y=mx+c Enrichment/life and work skills Fibonacci Sequence and other famous sequences Assessments: Unit 9 Test and Summer 1 Assessment Feed Forward following Assessment to fill gaps in knowledge and skills. 	articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests	 To calculate perimeter, area and volume. Enrichment/life and work skills: Unitary method supermarket challenge. Logic problems relating to direct and inverse proportion. 60 students will take part in the UKMT maths challenge. Assessments: Unit Tests and Summer 1 Assessment Feed Forward following Assessment to fill gaps in knowledge and skills.
Summer 2 <u>Literacy / numeracy foci</u> Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests	 Unit of work: Unit 10 Transformations GCSE Assessment objectives: To describe and write translations, reflections, rotations and enlargements Enrichment/life and work skills: NRICH Tasks Assessments Unit 10 Tasks and End of Year Assessment Feed Forward following Assessment to fill gaps in knowledge and skills. 	Summer 2 <u>Literacy / numeracy foci</u> Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests	 Unit of work: Unit 10 Sequences and Graphs Assessment objectives: To construct linear graphs. To find the nth term of linear sequences. Enrichment/life and work skills Use of linear functions to represent speed, distance, time, fixed cost etc. Assessments Unit Tests and End of Year Assessment Feed Forward following Assessment to fill gaps in knowledge and skills.

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	Year 8		Year 8
Autumn 1 Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. Homework A minimum of 2 Hegarty Maths quizzes every week. Revisiting, revising, remembering opportunities Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests Interleaving: Link to algebra(expressions and equations of volume/surface area)	Year 8 Unit of work: Unit 1 Number and Unit 2 Area and Volume Assessment objectives: • To calculate with negatives, roots and powers • To find factors multiples and primes • To substitute numbers into expressions • To calculate area and volume of shapes Enrichment/life and work skills: NRICH Tasks: Arithamagons 5 on the clock Negative Dice Game of 24 (MPN physical resource) Assessments: Unit Tests and Autumn 1 Assessment Feed Forward following Assessment to fill gaps in knowledge and skills.	Autumn 1 <u>Literacy / numeracy foci</u> Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests Autumn 2	 Vear 8 Unit of work: Unit 1 Factors and Powers and Unit 2 Working with Powers Assessment objectives: To write numbers as factors, multiples and primes. To find the HCF and LCM. To know the rules of indices Enrichment/life and work skills: Other types of number such as triangular. Key sequences: cubic, square and Fibonacci. Understand integer, irrational and their historical/philosophical roots. Assessments Unit Tests and Autumn 1 Assessment to fill gaps in knowledge and skills. Unit of work: Unit 3 2D and 3D Shapes and Unit 4
Autumn 2 Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. Homework A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge.	 Unit of work: Unit 4 Expressions and Equations Unit 5 Real-Life Line Graphs Assessment objectives: To be able to factorise, expand and simplify algebraic expressions. To be able to form and solve algebraic expressions and equations. To be able to construct and interpret real life graphs Enrichment/life and work skills: STEM: Real life graphs relating to science, finance and business. Introduce famous graphs such as the Laffer Curve Assessments: Unit 4 and 5 Tests and Autumn 2 Assessment Feed Forward following Assessment to fill gaps in knowledge and 	Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. Homework A minimum of 2 Hegarty Maths quizzes every week. Revisiting, revising, remembering opportunities Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge.	 Real Life-Graphs Assessment objectives: To map 2D and 3D shape To construct and interpret real-life graphs. Enrichment/life and work skills: Real-Life Graphs and their context. STEM: Plans and elevation. Assessments: Unit Tests and Autumn 2 Assessment Feed Forward following Assessment to fill gaps in knowledge and skills.

[Ia]	Core	Term	Higher
	Year 8		Year 8
Spring 1 <u>Literacy / numeracy foci</u> Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2	 Unit of work: Unit 6 Decimals and Ratio and Unit 7 Lines and Angles Assessment objectives: To calculate with decimals and ratio. To find angles in polygons. Enrichment/life and work skills: STEM: using ratio Interleaving: Revisit of Year 7 curriculum Assessments Unit Tests and Spring 1 Assessment to fill gaps in knowledge and skills. 	Spring 1 Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. Homework A minimum of 2 Hegarty Maths quizzes every week. Revisiting, revising, remembering opportunities Memri tasks on Hegarty Maths. Starters based on key KS2	 Unit of work: Unit 5 Transformations and Unit 6 Fractions, Decimals and Percentages Assessment objectives: To reflect, rotate, enlarge and translate shapes. To describe transformations To calculate with fractions, decimals and percentages. To compare and order fractions, decimals and percentages. Enrichment/life and work skills: NRICH Tasks Assessments Unit tests and Spring 1 Assessment to fill gaps in knowledge and skills.
knowledge.		knowledge. Low-stakes knowledge tests	
Spring 2 <u>Literacy / numeracy foci</u> Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests	 Unit of work: Unit 8 Fractions Assessment objectives: To order and compare fractions. To perform the four operations with fractions. To perform calculations with mixed numbers. Enrichment/life and work skills Interleaving with topics such as percentages, ratio and decimals. Assessments: Unit 8 Test and Spring 2 Assessment to fill gaps in knowledge and skills. 	Spring 2 <u>Literacy / numeracy foci</u> Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests	 Unit of work: Unit 7 Multiplicative Reasoning Assessment objectives: To use the unitary method of proportion to calculate answers. To recognise the difference between direct and inverse proportion. To be able to use algebra to solve both direct and inverse proportion problems. Enrichment/life and work skills: Proportionality and the idea as a common conception. Assessments: Unit Test and Spring 2 Assessment to fill gaps in knowledge and skills.

	Core Year 8	Term	Higher Year 8
Summer 1 Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. Homework A minimum of 2 Hegarty Maths quizzes every week. Revisiting, revising, remembering opportunities Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge.	 Year 8 Unit of work: Unit 9 straight line graphs and Unit 10 Percentages, Decimals and Fractions. Assessment objectives: To plot linear graphs. To convert between fractions, decimals and percentages. Enrichment/life and work skills: Linear graphs linked to life and work. For example gradient representations of speed or fixed charged billing. Assessments Unit Tests and Summer 1 Assessment to fill gaps in knowledge and skills. 	Summer 1 Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge.	 Year 8 Unit of work: Unit 8 Probability and Unit 9 Scale Drawings and Measurements Assessment objectives: To understand key words surrounding probability. To calculate probabilities. To construct sample space to calculate probability. To convert between units and construct scale drawings. Enrichment/life and work skills: Interleave fractions, decimals and percentages with probability. FINANCE: probability in finance The Monty Hall problem 60 students will take part in the national UKMT maths challenge. Assessments Unit Tests and Summer 1 Assessment to fill gaps in knowledge and skills.
Low-stakes knowledge tests Summer 2 Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. <u>Homework</u> A minimum of 2 Hegarty Maths quizzes every week. <u>Revisiting, revising, remembering</u> <u>opportunities</u> Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests	 Unit of work: Revison Work and Statistics, Tables and Diagrams Assessment objectives: To be able to construct and interpret a variety of graphs. Time to revise and revisit topics to embed learning in longterm memory. Enrichment/life and work skills: Science/Maths collaboration on data and sharing results. Enrichment: Students investigate their own data such as time taken to get to school. Graphs of key themes and features of other subjects. Assessments: End of Year Assessment and KS3 Assessment in Year 9 Feed Forward following Assessment to fill gaps in knowledge and skills. 	Low-stakes knowledge tests Summer 2 Literacy / numeracy foci Key definitions. Oracy to present answers in the correct literate manner but also to articulate problem solving. Definitions in Knowledge Tests. Homework A minimum of 2 Hegarty Maths quizzes every week. Revisiting, revising, remembering opportunities Memri tasks on Hegarty Maths. Starters based on key KS2 knowledge. Low-stakes knowledge tests	 Unit of work: Unit 10 Graphs Assessment objectives: To construct linear graphs. To find the gradient and intercepts. To recognise quadratic and cubic graphs. Enrichment/life and work skills Use of linear functions in relation to STEM, finance and other examples of everyday life. Assessments: Unit tests and End of Year Assessment to fill gaps in knowledge and skills.





UXBRIDGE HIGH SCHOOL

Shugri Omar Year 7

In Maths this year we have learned about lots of different topics including algebra, number, shape and probability. I have enjoyed learning about equations because I did not know how to do it at the start of the year and now I feel really confident to solve difficult equations. Apart from equations I have also enjoyed learning about averages and going over them this year means I now remember it by heart.

I also like how in Maths I have been able to do extra activities. In the first term I got the opportunity to see Maths outside the classroom when I visited Brunel University to take part in a STEM challenge against other schools. It was really fun. I also did the UKMT Maths Challenge in June. We had to sit a paper it was really challenging but fun. I did not win a certificate this year but I want to try and win one next year.