

Scheme of Learning: Year 9 Spring Term

Topic Sequence: Reasoning with numbers

6	7	8
Numbers	Using Percentages	Maths and Money

Topic Overview:

During this topic students will develop their knowledge of the number system to include rational and real numbers. Students will revisit standard form, LCM and HCF, directed numbers and fractions.

Lesson Sequence:

Integers, real and rational numbers

Students will develop their knowledge of integers by looking at rational and real numbers. This can be related to previous fraction and ratio work.

Understand and use surds (H)

Students will be introduced to the concept of surds and where they will encounter them. This topic is explored in depth in Key Stage 4.

Work with directed numbers

This step is to further embed students knowledge of directed numbers seeing them in more contexts such as equations and inequalities.

Solve problems with integers

Students will revisit the written methods for the four operations of arithmetic. They will practice interpreting questions and choosing the correct operation.

Solve problems with decimals

Building from the last step, students will strengthen their skills with the four operations when decimals are involved. They will practice interpreting questions and choosing the correct operation.

HCF and LCM

Students will be revisiting factors, multiples and primes as well as HCF, LCM and prime factorisation.

Adding and subtracting fractions

Students will revisit adding & subtracting fractions. They will estimate answers and compare the estimated answers with their calculated values. They will become confident in using the fraction key on their calculators.

Multiplying and dividing fractions

Students will revisit multiplying & dividing fractions. They will estimate answers and compare the estimated answers with their calculated values. They will practice interpreting questions and choosing the correct operation.

Solve problems with fractions

They will practice interpreting questions and choosing the correct operation. They will estimate answers and compare the estimated answers with their calculated values.

Numbers in standard form

Students will revisit both conversions to/from standard form. They will solve questions with and without calculators

Sequence of Lessons:

1	Integers, real and rational numbers
2	Understand and use surds (H)
3	Work with directed numbers
4	Solve problems with integers
5	Solve problems with decimals
6	HCF and LCM
7	Adding and subtracting fractions
8	Multiplying and dividing fractions
9	Solve problems with fractions
10	Numbers in standard form

Topic Resources

Knowledge Maps	
Assessment:	
Knowledge:	End of Topic test
Application of Knowledge:	Termly mixed topic assessment
Supportive Reading:	
	Sparx Maths: www.sparxmaths.co.uk Corbettmaths: www.corbettmaths.com AQA Revision Guide