KEVICC Key Stage 4 Curriculum Subject: Mathematics				Key Vocabulary and notation.		
Autumn Half-Term				Davas		
Term: Year 10 Autumn Term – Block Five Topic: Indices				Base	value	
What is the essential knowledge from this unit?				Index/indices	Zero	
What do students need to remember and understand?				Powers	Root	
Specification content		Specification notes	Negative	Big		
	-			powers	Small	
N6	N6 Use positive integer powers and associated real roots (square, cube and higher) Recognise powers of 2, 3, 4, 5		including square numbers up to 15x15 know that 1000=103 and 1	Exponent	Positive	
				Standard	Negative	
million = 106			form	Whole		
Students should be able to:				Standard	number	
• recall squares of numbers up to 15×15 and the cubes of 1, 2, 3, 4, 5 and 10, also knowing the				(index) form	Ordinary	
 corresponding roots calculate and recognise powers of 2, 3, 4, 5 calculate and recognise powers of 10 				Negative	numbers	
				Place value	Ascending	
understand the notation and be able to work out the value of squares, cubes and powers of				Convert	order	
• recognise the notation $\sqrt{25}$				Multiplying	Descending	
• solve equations such as $x^2 = 25$, giving both the positive and negative roots.				Dividing	order	
N7 Calculate with roots and with integer indices			Index laws	Negative		
				Commutative	Integer	
Students should be able to: • use index laws for multiplication and division of integer powers • calculate with positive integer indices.				Scientific	indices	
				notation	Roots of	
				Scientific	numbers	
				calculators	Evaluate	
				SCI/EXP	Reciprocal	
What pr	rior learning supports understanding	of this content?	How does this content link to futur	Mathematical qui should be design the structure of the deepen the stud understanding. V talk about mather concepts, they should be the vital mather language that he explain their ideo Students are exp encouraged to u during all discuss feedback and in content.	uestioning ned to unpick ne maths and ent's Vhen students ematical hould develop natical elps them as fully. ected and use terminology ions, verbal written	
Explore and use standard index form. Consolidate subject content				with powers and ro	oots from key	
 Use standard form using the four operators in context. Fluency of the four operations of number. Stage 3 and 4. Consolidate subject content 				using the rules of ir	ndices from key	
Workout simple fractions, decimals, and percentages of stage 3 and 4. Consolidate subject content				calculating with p	imbers in	
Convert between other fractions, decimals, and Standard form from key stage				e 3 and 4.	DITIDEIS IT	
percentages. • Revise and explore subject constraints and in contact				ontent through exc	amination	
Make use of multipliers to solve percentage problems.						
Exp	Express one number as a percentage of another. Pending: Where in the unit are students supported to read					
complex academic text? • Using the correct subject spe				cific terminology for numbers and		
Reading and understanding mathematical questions and symbols – examination pape problems' – teacher input				rs, class books.		
 Decoding complex examination questions - explain what Kesponaing to questions that reason – examination papers 				s, class books.		
they are asking the student to do' – teacher input. Following instructions to solve problems, brook down the				flecting and analysis of own work		
 rollowing instructions to solve problems - break down the tasks - teacher input. Creating notes that can be u 				used later for revision purposes -		
• Red	Recognising terminology, numbers, and symbols. class books, revision cards, mind maps etc.					

Key assessments:

How will do students review the information learned?

End of block assessments.

AQA end of block assessments provide a quick progress check at the end of each block of learning to make sure students have understood the content being covered. These are available for both foundation and higher tiers.

End of term/year assessments and mock examinations.

End of term assessments assessing the students' progress towards targets and provide diagnostic information to modify future teaching. End of year 9 and 10 examinations assessing the students' progress towards targets and provide diagnostic information to modify future teaching.

Two mock examinations seasons take place during year 11 using previous years AQA 8300 examination papers. Students to experience the full suite of papers at both Foundation and higher tiers using Non-calculator and Calculator requirements.

All examinations will explore the three examination papers at both foundation and higher tiers using non-calculator and calculator requirements.

How will feedback be seen?

Marked end of block, term assessments and mock examinations.

Personalised learning checklists for all assessments identifying strengths and areas of development.

Written teacher feedback and marking in compliance with faculty and College Marking Policies. Student responses to marking. Students self-mark using purple pen. Verbal feedback given every lesson from teacher and peers as appropriate. Teacher and student self-assessment of presentation of class books will be completed to ensure written work is of high standard and students are achieving their potential.