



# THE COLESHILL SCHOOL

## CURRICULUM OVERVIEW

### MATHEMATICS

## CURRICULUM

Our provision is a coherent and carefully sequenced “knowledge-engaged” curriculum based on the principles of cognitive science. There is a focus on development of literacy and the application of acquired knowledge to ensure children access the curriculum at a depth to ensure a deep and enduring understanding in discrete subject areas. The curriculum framework of cognitive education is planned to enable children to think independently, be resilient and contribute positively to society and the wider world. Students should be encouraged to question, reason, and engage with problem solving to enhance their mathematical understanding and development. We must create an atmosphere in our classrooms where become confident in asking questions, getting things wrong and contributing in mathematical debates.

## CURRICULUM HOURS

Key Stage	Hours per fortnight
3	Yr 7 – 8 hours, Yr 8 – 7 hours, Yr 9 – 7 hours
4	Yr 10 – 8 hours, Yr 11 – 8 hours
5	Yr 12 – 10 hours, Yr 13 – 9 hours, Yr 13 FM – 6 hours

## HOW DO WE ASSESS?

At TCS, all subjects follow the ‘Assessment Cycle’ when completing key significant marked pieces. Each assessment cycle has a block of initial teaching, a revision lesson, an assessment lesson and a review lesson (Nb. Dept. are free to flex when assessments take place around the term to fit best with curriculum schemes of work and subject demands).

These serve several purposes:

- To highlight the importance of all formal assessments.
- To ensure all assessments are preceded by thorough revision.
- To ensure all assessments are followed-up with detailed feedback and subsequent intervention or support
- To ensure parents are kept informed of their child’s progress to Age Related Criteria

ALL students will complete a minimum of 3 Key Assessments during the Academic Year, one per Term. It is expected that subjects follow the TCS Assessment Cycle when designing and implementing their assessments:



# THE COLESHILL SCHOOL

## KS3 CURRICULUM PLAN

### MATHEMATICS

## CURRICULUM INTENT

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To provide students with an engaging curriculum which will embed and enrich a deep understanding of mathematics.

## TERM 1

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### YEAR 7:

PLACE VALUE, ARITHMETIC PROCEDURES, PROPERTIES OF NUMBER, EXPRESSIONS AND EQUATIONS, COORDINATES AND SEQUENCES,

### YEAR 8:

ROUNDING AND ESTIMATION, PERIMETER AND AREA, POWERS, ROOTS AND BRACKETS, EXPRESSIONS AND EQUATIONS, VOLUME, HCF AND LCM,

### YEAR 9 :

POWERS AND ROOTS, PERIMETER AREA AND CIRCLES, REARRANGING AND SOLVING EQUATIONS, ACCURACY AND BOUNDS, REPRESENTING DATA, ANGLES IN SHAPES, STATISTICAL DIAGRAMS, PYTHAGORAS AND TRIGONOMETRY, FACTORS MULTIPLES AND PRIMES

## TERM 2

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### YEAR 7:

[ARITHMETIC PROCEDURES, MULTIPLICATIVE RELATIONSHIPS, CALCULATIONS WITH PERCENTAGES,

### YEAR 8:

DECIMAL AND NEGATIVE NUMBER CALCULATIONS, MULTIPLICATIVE RELATIONSHIPS, SEQUENCES AND COORDINATES, ANGLES AND SHAPE

### YEAR 9:

FRACTION CALCULATIONS, PROBABILITY, RATION AND PROPORTION, PERCENTAGES, CHANGING THE SUBJECT, ALGEBRAIC FRACTIONS, SURDS, PROOF, QUADRATICS, SEQUENCES

## **TERM 3**

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### **YEAR 7:**

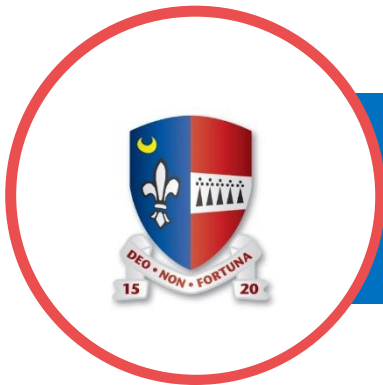
PERIMETER AND AREA, LINES AND ANGLES,  
TRANSFORMATIONS

### **YEAR 8:**

FRACTION CALCULATIONS, FDP, PROPORTIONALITY,  
STATISTICAL REPRESENTATIONS, REFLECTIONS AND  
ENLARGEMENTS

### **YEAR 9:**

GRAPHS, REAL LIFE GRAPHS, INEQUALITIES,  
CONSTRUCTIONS, VOLUME AND 3D GEOMETRY, STANDARD  
FORM, TRANSFORMATIONS, CIRCLE THEOREMS, SIMILARITY  
AND CONGRUENCE



# THE COLESHILL SCHOOL

## KS4 CURRICULUM PLAN

### MATHS

## EXAMINATION BOARD

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GCSE: PEARSON EDEXCEL  
CODE: 1MA1

## PAPER

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### PAPER 1: NON- CALCULATOR

Written exam: 90 Minutes  
80 marks  
33.3% of GCSE

### PAPER 2: CALCULATOR

Written exam: 90 Minutes  
80 marks  
33.3% of GCSE

### PAPER 3: CALCULATOR

Written exam: 90 Minutes  
80 marks  
33.3% of GCSE

## PAPER 1

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### WHAT'S ASSESSED

This paper is NON-CALCULATOR.

Any topic from the GCSE syllabus could be assessed.

## PAPER 2

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### WHAT'S ASSESSED

This paper is calculator. this will need to be a CASIO calculator to provide the best opportunity to answer questions accurately.

Any topic from the GCSE syllabus could be assessed

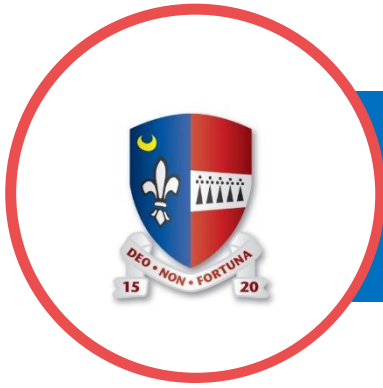
## PAPER 3

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### WHAT'S ASSESSED

This paper is calculator. This will need to be a CASIO calculator to provide the best opportunity to answer questions accurately.

Any topic from the GCSE syllabus could be assessed



# THE COLESHILL SCHOOL

## KS5 CURRICULUM PLAN

### A-LEVEL MATHEMATICS

## EXAMINATION BOARD

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A LEVEL PEARSON EDEXCEL  
CODE: 9MA01, 9MA02, 9MA03

## PAPER

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### PAPER 1: PURE 1

Written exam: 2 HOURS  
100 marks  
33.3% of A LEVEL

### PAPER 2: PURE 2

Written exam: 2 HOURS  
100 marks  
33.3% of A LEVEL

### PAPER 3: APPLIED

Written exam: 2 HOURS  
100 marks  
33.3% of A LEVEL

## PAPER 1

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### WHAT'S ASSESSED

This is a CASIO calculator paper and a CASIO FX-991EX is required

This is a Pure Exam which covers any topic from the pure section of the syllabus

## PAPER 2

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### WHAT'S ASSESSED

This is a CASIO calculator paper and a CASIO FX-991EX is required.

This is a Pure Exam which covers any topic from the pure section of the syllabus.

## PAPER 3 IF REQ.

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### WHAT'S ASSESSED

This is a CASIO calculator paper and a CASIO FX-991EX is required.

This is an Applied Paper which covers any topic from the Statistics and Mechanics section of the syllabus.

