HOPE HIGH MATHS LEARNING JOURNEY

Summer Term 6

REVISION

EXAMINATIONS

Summer Term 5

SIMILARITY
- Understand congruency
- Find missing sides in similar shapes
- Recognise congruent triangles

VECTORS
- Work out vectors
- Multiply and divide vectors
- Add and subtract Vectors

ALGEBRA 3
- Simultaneous equations
- Read solutions from graphs

Spring Term 4

PROBABILITY
- Single event probability
- Tree diagrams
- Listing outcomes
- Dependent and independent events

NUMBER 2
- Calculate with percentages
- Product of prime factors
- Convert to and from standard form

TRANSFORMATIONS
- Perform reflections, rotations, translations
- Shape enlargements

CONSTRUCTIONS
- Construct triangles

Spring Term 3

PYTHAGORAS AND TRIGONOMERTY
- Find a side using Pythagoras
- Find missing sides and angles using trig ratio

ALGEBRA 2
- Linear sequences
- Changing the subject of the formula
- Laws of indices

DATA
- Recognise correlation
- Charts and graphs
- Lines of best fit
- Finding averages

SHAPE 2
- Volume and surface area of prisms
- Perimeter and area of 2-D shapes
- Plans and elevations

RATIO AND PROPORTION
- Directed proportion
- Simplify ratios
- Share in a ratio

Autumn Term 2

FRACTIONS, DECIMALS AND PERCENTAGES
- Calculating percentages
- Calculate repeated percentage change
- Fraction, decimal and percentage equivalence

SHAPE 1
- Basic angle facts
- Interior and exterior angles
- Properties of shapes

NUMBER 1
- Rounding and estimating
- Directed number arithmetic
- Four rules with integers and fractions

GRAPHS
- Find the equation of a line
- Plot y=mc+x
- Parallel lines
- Interpret real-life graphs

ALGEBRA 1
- Solve linear equations
- Substitute values into expressions
- Simplify expressions

Autumn Term 1

Schemes of learning are designed to ensure students progress based on their security of understanding and readiness for the next stage.
STRETCH and CHALLENGE is at the heart of our curriculum

Students will be able to SOLVE PROBLEMS and APPLY their knowledge to routine and non routine problems

Students will be able to REASON, CONJECTURE and JUSTIFY their arguments using mathematical language

Topic tests and termly assessments are designed to accurately assess knowledge and maximise progression.

Our scheme is designed with INTERLEAVING as a key element

Use Manipulatives will be used within a CPA approach to develop CONCRETE, PICTORIAL and ABSTRACT understanding

Students will develop CONCEPTUAL UNDERSTANDING and become FLUENT mathematicians leading to ability to RECALL and APPLY knowledge rapidly

Mathematics is not about numbers, equations, computations or algorithms. It is about UNDERSTANDING - Thurston