YEAR 9 MATHEMATICS
LEARNING JOURNEY

Build skills. • Explore maths. • Prepare for the future

FEATHERSTONE HIGH SCHOOL
TOGETHER WE ACHIEVE

MathsWatch

> *"Without mathematics, there is nothing you can do. Everything around you is mathematics. Everything around you is numbers."*
> – Shakuntala Devi

MATHS IN THE REAL WORLD

Rounding and accuracy



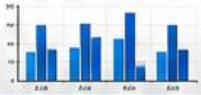
Measurements often need to be rounded in everyday situations.

Percentages in shopping



Percentages help us understand discounts and savings.

Data and statistics



Graphs and data help us make sense of information in the world.

Area and perimeter



Used in gardening, decorating and planning spaces.

Angles in real life



Angles are all around us in buildings, roads and design.

Bearings and navigation



Bearings help us find directions and plan journeys.

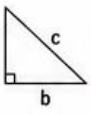
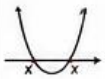
3D shapes and volume



Used in packaging, engineering and architecture.

AUTUMN TERM – BUILDING CONFIDENCE WITH NUMBER & ALGEBRA

START OF YEAR 9

1	2	3	4	5	6	7
Similarity & congruency	Pythagoras Theorem	Linear sequences	Geometric sequences	Product of Two Binomials	Solving & factorising Quadratics	Rearranging Formulae
		2, 5, 8, 11, ... + 3	3, 6, 12, 24, ... × 2	$(x+a)(x+b)$ 	$x^2+bx+c=0$ 	Make x the subject $y = \frac{ax+b}{c}$

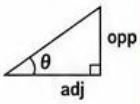
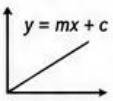
ASSESSMENT POINT 1 – END OF AUTUMN TERM

Number and Algebra Assessment

- ✓ Fluency with calculations
- ✓ Pattern and sequence understanding
- ✓ Algebraic skills
- ✓ Problem solving in real-life contexts



SPRING TERM – PROPORTION, DATA & STATISTICS

1	2	3	4	5
Standard form	Trigonometry	Linear graphs	Real life graphs	Other graphs
3.2×10^5				

ASSESSMENT POINT 2 – END OF SPRING TERM

Statistics Assessment

- ✓ Data analysis
- ✓ Graphical representation
- ✓ Averages and measures
- ✓ Problem solving with statistics



SUMMER TERM – SHAPE, SPACE & APPLICATIONS

1	2	3	4	5	6	7	8
Angles in Parallel Lines	Angles in Polygons	Laws of Indices	Transformations	Calculator Functionality	Maths and the Environment	Maths in the Workplace	Thinking Critically with Maths
		$a^m \times a^n = a^{m+n}$ $(a^m)^n = a^{mn}$					

ASSESSMENT POINT 3 – END OF SUMMER TERM

Geometry and Measurement Assessment

- ✓ Geometry and angles
- ✓ Area, perimeter and volume
- ✓ Constructions and bearings
- ✓ Problem solving and reasoning



LOOKING AHEAD TO YEAR 10

- Iteration (H)
- Circle Theorems (H)
- Trigonometry (H)
- Surds (H)
- Quadratic Graphs (H/F)
- Vectors (H/F)
- Indices & Standard Form (H/F)
- x^2+2x+1 Further Algebra (H)

YOUR JOURNEY CONTINUES...

Build confidence.
Keep practising.
Achieve your best.

> "The only way to learn mathematics is to do mathematics"
>
> — *Paul Halmos*

ENRICHMENT & OPPORTUNITIES

Competitions & Challenges

- UKMT Maths Challenge
- World Numeracy Day
- Pi Day Celebration

Clubs

- Chess Club
- Rubik's Cube Club
- Maths Enrichment Club



HOW WE ASSESS

- ✓ Fortnightly Progress Checks
- ✓ Retrieval Practice
- ✓ Classwork (Quizzes)
- ✓ Classroom (MathsWatch)
- ✓ End of Term Assessments

WEEKLY HOME LEARNING

MathsWatch

MathsWatch Tasks

- Ensure modelled solutions are written into orange books.



TOGETHER WE ACHIEVE

INCLUSION – We value everyone and celebrate inclusion.

CARE – We care for our school community and support one another.

RESPECT – We treat everyone with dignity and respect.

CHALLENGE – We embrace challenge and enrich our learning.

RESILIENCE – We keep going and learn from our setbacks.

PARTNERSHIP – We work together and celebrate success.

FHS VALUES