PLUME ACADEMY - LEARNING OVERVIEW

Year	8
Subject	Mathematics

Prior Learning

The Year 8 curriculum builds on a child's key stage two experience by developing understanding of previous concepts in new contexts and introducing some entirely new content to explore.

Curriculum Intent – What are the curriculum aims?

We believe that students deserve an engaging and ambitious mathematics curriculum, rich in skills and knowledge, which ignites curiosity and prepares them well for everyday life and future employment.

An important aim of the course is to help students to talk about mathematics and use mathematical language correctly. We develop the skills to ensure the students can explain and give reasons to support mathematical thinking, as this is essential at GCSE. Confidence is built to enable them to pass on their knowledge to others in a clear, concise and logical way. A 'Maths Mastery' approach is used to develop thebuilding blocks that students need to study mathematics successfully and to a high level.

Time is spent building, developing and extending strong number and algebra skills, allowing students to increase their understanding of mathematical structure, using a variety of representations to build fluency. These important core skills lay a solid foundation for more complex learning later.

Each block of knowledge is divided into a series of small learning steps. Together, these small steps cover all the curriculum content that students need to know. Students are encouraged to use visual methods to solvethe problems posed to them – this may be by drawing a diagram or using manipulatives (counters, bead strings, Cuisenaire, multilink etc). Students are encouraged to use their calculators to support their ability tosolve problems. By learning mathematics in small, related chunks, students will remember more and develop a greater depth of understanding.

Many people think they 'can't do Maths', but with exciting new teaching approaches, we're proving day by day that every child really can love and succeed in Maths!

Curriculum Implementation – What my child will be learning?

Term 1	Half Term 1	**Proportional Reasoning** Ratio and scale Multiplicative change Multiplying and dividing fractions **Representations** Working in the Cartesian plane
	Half Term 2	**Representations** Working in the Cartesian plane Representing data Tables and probability
Term 2	Half Term 3	**Algebraic techniques & Developing Number** Brackets, equations and inequalities Sequences
	Half Term 4	**Developing Number** **Number sense** Fractions and percentages Indices Standard index form
Term 3	Half Term 5	Standard index form continued **Developing Geometry** Angles in parallel lines and polygons Area of trapezia and circles
	Half Term 6	**Developing Geometry & Reasoning with data** Measures of location Line symmetry and reflection The data handling cycle

Curriculum Impact – How will progress be assessed?

At the end of every term, students will sit assessments (2 papers, one calculator based and one non-calculator based) in class. These will cover all topics since the beginning of the year (and a small amount of prior knowledge from previous years). This cumulative approach to testing will support deep learning, as topics will be revisited many times. They will be appropriate to the ability of the student. Students will receive detailed feedback on areas of strength and areas of development and given opportunities to improve.

Super-Curricular Opportunities – Extending Learning

Useful study resources:	If a student is really passionate about this subject, they could:	As a parent/carer, I can assist my child in this subject by:
• Knowledge Organisers provided for each topic • Sparx Independent learning • Dr Frost (DrFrostMaths.com) • Corbett Maths (Videos and Worksheets – Corbettmaths)	• Use the NRICH website (https://nrich.maths.org/14846) • Earn more XP points in Sparx	• Ask them about their maths and how they are finding it, you don't need to be an expert • Encourage them to be actively involved in their learning by asking for additional support if they are finding a topic difficult • Support us in encouraging students to complete homework on time and to the best of their ability