Appendix 1: Mathematics Policy

These guidelines demonstrate what we expect from our teachers and pupils in mathematics:

Key Aspects	Teacher	Pupils
High expectations of engagement and attainment for every child	Conveys the message that progress is made through engagement and effort. Expects **every** pupil to succeed. Is enthusiastic about the learning expected. Gives every pupil the opportunity to experience or master key ideas.	Have high aspirations, believe they can achieve and work hard in order to do so. Want to learn and enjoy learning.
	Follows a mastery curriculum. Differentiates through scaffolding, questioning and use of concrete and pictorial representations – instead of offering pupils different tasks. Uses speaking and listening activities, engaging resources and novel 'ways in' to a concept. Extends through further developing depth of language, conceptual understanding or mathematical thinking. Immediately acts on assessment from questioning and observation	Explore mathematics and ask questions to deepen their appreciation of the subject. Are challenging by solving less routine problems, demonstrating using concrete manipulatives/drawing diagrams, explaining in full sentences or asking their own questions.
Fewer topics, greater depth *Depth of mastery for all*	**Develops conceptual understanding** through multiple representations and connections. Has a full understanding where and why this lesson falls in the sequence and in the longer term development of pupils' mathematical understanding. Anticipates and incorporates misconceptions and inaccuracies.	Have access to concrete manipulatives. Manipulate objects or use pictorial representations to deepen their understanding. Make links between concrete, pictorial and abstract representations Link new learning to previous learning in mathematics, other subjects and beyond school. Demonstrate conceptual understanding through tackling new problems

	Develops communication of mathematical ideas, **justifications and proofs** Uses modelling to support pupils in developing independence in their mathematical recording. Considers own language and models expected language use clearly and accurately.	Participate in pair/group discussion tasks. Are ready to answer in class questioning/discussion. Speak in full sentences. Use correct mathematical words and symbols. Use the key words.
	Develops mathematical thinking and ability to generalise Ensures every pupil participates in active thinking through a variety of questioning techniques. Encourages use of independent learning strategies, such as journaling. Involves pupils in generalising by comparing and classifying mathematical objects or talking about what might be sometimes, always or never true.	Do as much of the cognitive work – the writing, thinking, analysing and talking – as possible. Seek general patterns and create examples.
Every opportunity is used to develop mathematical problem solving	Ensures that lesson **time is used purposefully**. Makes clear what pupils should be doing at every point in the lesson, so no time is wasted. Minimises teacher talk.	Participate fully – everyone is engaged in the task. Collaborate, discussing their thinking. Work independently for some of the lesson. Demonstrate mastery and the ability to 'go it alone'