Longridge High School

Curriculum Intent Mathematics

THE BAY LEARNING TRUST

1. Vision & Purpose

- The mathematics curriculum aims to produce numerate, confident, and critical thinkers. We want every pupil to be inquisitive and ask questions, understand, use, and enjoy maths, not just for exams, but as a key tool for life, further education, and careers.
- Maths is central: to reasoning, problem solving, logical thought, and supporting other disciplines and daily living (financial, technical, scientific contexts). It is vital our pupils are mathematically fluent to be successful members of society.

2. Ambition for All Learners

- All pupils, regardless of starting point, will be supported to succeed. Support includes scaffolding, differentiated tasks, interventions for those who struggle, and enrichment/challenge for those who show aptitude.
- Aim to close gaps (e.g. for disadvantaged pupils, those with SEND) so that progress is equitable across all groups.
- We recognise that children learn best when they can actively explore and visualise mathematical ideas. That's why we embed the use of manipulatives. Manipulatives are not just tools; they are bridges between concrete experience and symbolic reasoning. Their purposeful use enables all pupils, including those with SEND, to access learning equitably, articulate their thinking, and laying strong foundations for future success.

3. Knowledge & Skills Development

- Key knowledge includes number, algebra, geometry, statistics, ratio and proportion, and probability. Pupils gain fluency in methods, knowing how and when to apply them.
- Skills: developing mathematical reasoning, mastery of calculation, solving problems (routine & unfamiliar), interpreting data, and extracting meaning from context.
- Emphasis on both procedural fluency (accurate, efficient techniques) and conceptual understanding (why methods work, what underpins them).

4. Sequencing & Progression

- In earlier years (KS3), pupils build foundational knowledge: number work, basic algebra, geometry, manipulatives or visual methods as needed.
- As pupils move through KS3 into KS4, curriculum becomes increasingly complex: more advanced algebra, formal proofs or reasoning, interleaving of topics, and regular retrieval.
- The school has invested in Sparx Maths which is a personalised online learning platform designed to support students with maths homework and independent study. The interleaving and regular retrieval supports pupils learning.
- GCSE provision is aligned with examination specification Edxcel; ensuring that pupils are ready for the content and style of assessments they will face.

5. Literacy, Oracy & Vocabulary

- Explicit teaching of mathematical vocabulary (e.g., term, expression, factor, variable, equation, ratio, mean, mode, median, probability, hypothesis) so pupils can read, talk, and write in maths with precision.
- Classroom talk, peer explanation, reasoning aloud: pupils encouraged to explain their thought processes, justify answers, compare methods.
- Written work: structured problem write-ups, explanation of reasoning, interpretation of data and solutions in context.

Our Vision

We aim for all of our pupils to live life in all its fullness so they can flourish spiritually, academically and personally.

6. Enrichment & Cultural Capital

- Opportunities beyond the classroom are available. The school has links with Lancashire School of Mathematics which provide opportunities for schools.

7. Cross-Curricular Links & Real-World Relevance

- Mathematics underpins many other subjects: science, technology, geography, computing; helping pupils access those areas with confidence.
- Real-life relevance: financial maths, statistics in media, maths in everyday decision making. Making sure tasks are not purely abstract but show how maths applies.

8. Safeguarding & Online Safety

- Sparx Maths is used and staff ensure pupils consider the safety of online working.

9. Assessment & Impact

- Frequent formative assessment: quizzes, class work, mini-tests, error analysis. These help identify misconceptions and address them quickly.
- Summative assessments designed to reflect GCSE styles, to prepare pupils for exam rigor: timed papers, worked solutions, problem solving.
- Carefully track pupil progress, compare groups (gender, SEND, disadvantage) to identify and close gaps. Use data also to inform teaching practice.

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