Mathematics Curriculum Statement

🎯 Our Curriculum Intent

At Great Arley School, our intent is to create confident, competent, and resilient mathematicians who are equipped with the knowledge and skills to succeed in school and life beyond. We aim to foster enjoyment, curiosity, and a growth mindset in mathematics through engaging, practical, and meaningful learning experiences. Our curriculum encourages exploration, reasoning, and communication using accurate mathematical vocabulary, and supports students in developing fluency, number sense, and the ability to solve problems in real-life contexts.

We are committed to ensuring all students, including those with complex needs and learning difficulties, experience success in mathematics, linked to their personalised learning goals and recognise its value and application in everyday life. Our ambition is to empower students to become independent learners who can make informed decisions, manage their finances, and engage with the wider world.

🗂️ Curriculum Overview

Mathematics is taught daily across all key stages (Foundation Stage to Key Stage 4) and our curriculum is carefully adapted to meet the diverse needs of our learners. Lessons are planned following the EQUALS semi-formal and formal curriculums in the primary department and the Lancashire Mathematics Scheme of Work in the secondary department, which is aligned with the EYFS Framework (2021), the National Curriculum (2014), and non-statutory guidance such as the Ready to Progress Criteria (2020). This ensures a structured progression of knowledge, skills, and vocabulary, and supports teachers in closing gaps, addressing misconceptions, and building on prior learning.

Our curriculum is carefully adapted to meet the diverse needs of our learners. Students working at pre-formal or semi-formal levels are taught in personalised 1:1 or small group contexts. At Key Stage 4, students follow accredited pathways including:

- AQA Entry Level Certificate (Entry Levels 1–3)
- AQA Functional Skills Mathematics (Level 1)
- ASDAN Transition Challenge
- ASDAN Life Skills Challenges

Mathematics is made meaningful and accessible with practical resources, pictorial representations, and engaging activities. Teachers emphasise connections within maths and across subject areas, as well as links to careers in the working world, and real-life examples are used wherever possible to highlight the importance of mathematical understanding in everyday decision-making.

🛠 Skills and Knowledge Students Develop

Our mathematics curriculum supports the development of:

- Secure number sense and fluency in core skills (e.g. number bonds, multiplication facts, doubles and halves)
- Confidence in mental and written calculation strategies, supported by the school's **Written Calculation Policy**
- Problem-solving and reasoning skills, applied both independently and collaboratively
- Accurate use of mathematical language for clear communication of ideas
- Practical understanding of measurement, money, time, and data handling
- Conceptual understanding of shape, space, and numerical patterns

Lessons encourage students to make their own decisions about methods used, explain their reasoning, and reflect on their learning. Concrete and visual resources (e.g. Base 10, number lines) are integrated to support conceptual understanding.

Formative assessment tools, including self-assessment and student response systems (e.g. purple pen work), are used to inform planning and next steps.

Feedback from students highlights their enjoyment of mathematics, particularly when learning is active, collaborative, and linked to real-world contexts. Opportunities for further challenge are provided where appropriate.

🌍 Careers and Cross-Curricular Connections

Mathematics at Great Arley School is enhanced through strong cross-curricular connections and meaningful links to careers education. Students regularly apply their mathematical learning in subjects such as:

- **Science** (measuring, data analysis)
- **Design & Technology** (weights, measurements, time)
- **Computing** (logical reasoning, data handling)
- **PSHE** (money management, budgeting)
- **PE** (scoring systems, time management)
- **Art** (patterns, symmetry)

We promote real-world application and career relevance through:

- **Maths days (e,g, NSPCC Number Day, World Maths Day)**
- **Careers Week activities**
- **Exploring jobs within STEM industries**
- **Educational visits and employer engagement**
- **College taster sessions and transition planning**

These experiences are aligned with Gatsby Benchmark 4 and help students make connections between mathematics and future opportunities.