Maths Curriculum Rationale 2022-23

The aims for our Maths curriculum are to ensure that pupils understand that Maths uses its own language of numbers, symbols and formulas to explore the rules that we need to measure, solve problems, identify quantities, time and amounts, find patterns and structure in our world, and generally understand the workings of our world and predict how it might change in different times or conditions.

Curriculum Intent

Our Maths curriculum will ensure that our pupils know that studying maths helps us to make predictions, solve problems and can be fun! Pupils will work individually and collaboratively thus improving their communication skills and prepare them for the world of work. We inform our pupils to understand that Maths continually grows and changes and that as mathematicians they will expand on their knowledge, make new discoveries and could in the future develop their own theories to benefit our world.

Curriculum Implementation

The Maths curriculum is reviewed in the Summer term of each academic year in readiness for the following year. Learning opportunities are fine-tuned and the Subject Lead works with the Senior Leadership Team of school to identify progress milestones across the various strands of the subject. Our Early Years practitioners introduce Mathematical concepts most noticeably through the Communication and Language & Mathematics areas of learning. Maths is delivered through the Power Maths scheme of work. This was chosen to contextualise Maths for our children in to everyday situations so that they could see Maths in action helping to solve everyday issues. Teachers ensure progression and repetition of key skills to embed key learning and subject knowledge. The Maths curriculum is aimed at:

* Developing the analytical, research and problem solving skills of our pupils.
* Developing their scientific, mechanical, coding, abstract problem solving, logic, planning and budgeting skills through Maths.
* Developing their debating skills – our Maths curriculum reflects the importance of spoken language to develop mathematical vocabulary and the pupils’ ability to present mathematical justification, argument and proof.
* Encouraging pupils to follow lines of enquiry and be critical thinkers to be able to reason mathematically.

Curriculum Impact

Formative assessment is carried out on a daily basis in every lesson. Teachers use this assessment to inform their planning and future delivery of lessons. Teachers “walk the class” in every Maths lesson to provide verbal feedback to pupils and address misconceptions at the earliest opportunity. At the end of each lesson teachers make a judgement as to which pupils need to move on, consolidate or revisit a given skill, rather than marking work after the lesson. Future planning of lessons is guided by these formative assessment judgements.

Termly summative assessment is carried out by staff to measure the progress of students within a year group and across year groups and to identify those pupils who made need extra support. The termly summative assessments are shared with the Assessment Lead and the rest of the SLT of the school. The information provided is used to direct Pupil Progress meetings.

People with maths degrees often build careers in:

* [accounting](https://successatschool.org/careerzonesummary/17/Accountancy);
* [medicine](https://successatschool.org/careerzonesummary/23/Medicine-Healthcare);
* [engineering](https://successatschool.org/careerzonesummary/2/Engineering);
* forensic pathology;
* [finance](https://successatschool.org/careerzonesummary/19/Banking-Finance);
* business;
* consultancy;
* teaching;
* [IT](https://successatschool.org/careerzonesummary/28/IT-The-Internet);
* [games development](https://successatschool.org/advicedetails/738/game-jobs);
* research;
* programming;
* the civil service;
* design;
* [construction](https://successatschool.org/careerzonesummary/30/Construction-Property);
* astrophysics;
* actuary;
* business and technology analysm;
* software engineering;
* and information engineering.