



Subject: Maths

Subject Leader: Abbie Gorst

Concepts / Themes / Big Questions

Maths is organised into different areas within the White Rose scheme:

- Number and place value
- Calculation (addition, subtraction, multiplication and division)
- Fractions, decimals and percentages
- Properties of shape
- Measurement
- Position and direction
- Statistics
- Algebra
- Ratio and proportion

Children will complete learning in all these areas, at the correct age and stage, during their time at Shap.

Each area is blocked into 'small steps' where larger concepts are broken down into manageable chunks so children can securely understand the mathematical concepts and structures behind calculations.

Within each lesson, children will have opportunities to reason and problem solve, applying their learning

NC / Other Links

- 2014 National Curriculum underpins all maths teaching and learning.
- White Rose maths scheme used to sequence units of work. This follows the National Curriculum ensuring all objectives for each year group are covered. White Rose Premium is used to aid teachers and support staff's CPD through the videos and slides.
- Teacher's supplement White Rose with their own resources based on their teacher judgement for the lesson.
- Big Maths Learn Its, CLICs and SAFEs used to provide extra number fluency weekly.

Cultural Capital

At Shap, our aim is to give children the knowledge and skills to prepare them for what comes next in their lives. This includes:

- Teaching the relevant vocabulary needed throughout their education
- Giving children frequent opportunities to link maths to real-world problem solving.
- Non-fiction maths books in reading areas throughout school
- Learning about significant people who have changed the direction of maths both contemporary and in the past. E.g. Pythagoras studied in history as an influential mathematician through to Marcus Du Sautoy making maths popular today.

Enrichment: People, Locality and County

- Attend the annual gifted and talented event for Year 6s at Morland Primary School
- Developing links with the maths department at UCC running a transition event for UKS2.
- Take part in the Primary Maths Challenge for more able mathematicians
- Magical Maths Days—run by the children delivering maths games and activities to each class in the summer term

Enrichment: Resources

Each class has their own stock of basic maths manipulatives, for example:

- Counters
- Place value equipment—dienes, PV cards, PV counters, PV sliders
- Multilink cubes
- Tens frames

There is also a shared resource cupboard for items such as: 3D shapes, weights and scales, measuring equipment, money and class teaching clocks.

White Rose Premium resources including, true or false questions, Flashback 4s, teaching slides and example questions.

Links to Christian Vision and Values

Maths most closely links to the section of our vision that states, '*nurturing one another, to create an environment from which all can soar*'.

Within maths at Shap we want to create an atmosphere where all children think positively and enjoy maths with a 'can do attitude'. In order to do this, we encourage collaborative working, discussion, supporting ideas and the belief that the process is as important as an answer. We know that all our children are mathematicians and encourage them to soar at their own level within the subject.

Maths links closely to these school values:

- Friendship—working together to solve problems, talk through answers and ideas, supporting each other
- Trust - having faith and trusting in one's own abilities in maths
- Koinonia—working as a school community to ensure maths is an enjoyable, worthwhile and useful subject where everyone believes they can be a mathematician
- Creation—maths is a creative subject that underlies lots of art and nature Children can use numbers and shapes creatively

Links to other Subjects

There is no end to the subjects maths can link with, from looking at the maths used in geometric Islamic patterns on prayer mats when studying Islam in RE, to the earliest mathematical symbols used in early ancient civilisations in history, maths pervades all subjects.

Science and maths link closely, at Shap maths is used in science in a range of different graphs and tables to collect results and then analyse them to come to scientific conclusions, e.g. in Year 5 Animals Including Humans, graphs were made to show the growth of an embryo over time and to find which time period the most/least growth occurs.

Links to SDP and School Priorities

- Priority 1 - To construct an ambitious curriculum that is coherently planned and sequenced from EYFS to Y6
- Priority 3 - To ensure effective monitoring and accountability for the quality of education
- Priority 5 - To develop subject leaders subject and pedagogical content knowledge to enhance the teaching of the curriculum

Assessment / Proof of Progress

Maths uses both formative and summative assessment.

Formative assessment takes place daily by teachers and support staff in maths lessons, interventions and tutoring. Formative assessment can take many forms including: marking and verbal feedback, discussion, questioning, reflective journaling.

Formative assessment is used to inform future planning, grouping, and interventions for those that need support to achieve the objective and for those exceeding to be pushed to their full ability.

Summative assessment takes place in terms 2, 4 and 6. All children take Rising Stars PUMA assessments which are aligned with the White Rose scheme of work.

Year 2 and 6 take their SATs in the summer term. Year 4 complete the Multiplication Tables Check in the summer term.

Monitoring Procedures

Both formal and informal monitoring takes place throughout the year. Formal monitoring takes place termly and consists of a:

- book scrutiny
- pupil voice
- learning walk

Different children are selected for the pupil voice each cycle to provide a broad spectrum of views to aid improvement.

Children have their books present for the pupil voice talk, these are then used for the book scrutiny.

The link governor for maths is Julie Graham. Link governor monitor meetings are held every 2 terms via TEAMS or face-to-face.

Main Subject Action Areas

- Continue to develop a positive attitude towards maths for children and adults in the school community.
- Embed the new White Rose scheme in all classes ensuring teachers are confident using the scheme and the NCETM 5 Big Ideas (coherence, fluency, representation and structure, mathematical thinking and talking, variation) in teaching maths.
- Develop the problem solving and reasoning skills of children by developing mathematical vocabulary and oracy.