St Stephen Churchtown Academy

Teaching and Learning Principles

Subject: Maths

Every child matters; every moment counts!

School Vision:

Our school will be an exciting place to learn!

We will:
- nurture individuality
- develop independence
- support children to reach their full potential
- encourage learners to be resilient

School Mission Statement:

To work in close partnership with the children, their families and the wider community to develop:

- Curiosity
- Courage
- Creativity

Subject Intent:

We define curriculum as the totality of a child's experience at St Stephen Churchtown Academy. This includes not only what activities and learning they are immersed in but also the processes involved in how the child learns.

At St Stephen Churchtown Academy, we have developed a maths curriculum which develops:

Curiosity – providing opportunities for discussion about mathematical concepts and langauge

Courage – promoting a risk-taking environment

Creativity – representing problems in a variety of ways

To ensure curriculum quality we have addressed the following:

At St Stephen we have adapted our teaching to follow the mastery approach; building on our own questioning technique to enable the children to deepen their mathematical understanding. Every child is encouraged to develop a love of mathematics and will make the progress to meet or exceed age-related expectations. The children will build on prior learning and have the opportunity to revisit key mathematical concepts throughout each year. They will be able to discuss their understanding in maths, along with ask questions and offer solutions to problems.

Subject Implementation:

At St Stephen, we follow the mastery curriculum, in which children focus on the different strands within maths for a block of time, ie including addition/subtraction, multiplication/division, Shape, Measure, and Statistics. Within each mathematical area, the children explore and review number facts, develop and extend their reasoning skills and solve a wide range of problems.

The children are given the opportunity to practise their skills in a range of ways, eg through reciting, on online software (TT Rock Stars/Sumbots) and through applying through a range of questions. The children are familiar with a wide variety of question types which encourage the children to think deeply about their mathematical knowledge, which include Always/Sometimes/Never, Odd One Out, Prove it, Explain. The children move through the independent activities through progressively challenging questions, requiring a deeper understanding of maths and an increasing ability to reason and problem solve, along with recalling and adapting prior understanding and knowledge.

The maths questions are tailored to each class' needs and are developed through the teacher's assessment and teaching cycle. Real life experiences are also brought in to the teaching input and independent activities whenever possible. The motivating, challenging, small-step progressive style of teaching and questioning has developed a real love of maths in St Stephen, where every child can reach their full potential along with enjoying and understanding the subject, talking positively about it.

Subject Impact:

We aim for every child to be able to:

- Confidently solve a range of mathematical questions, involving fluency, reasoning and problem solving, applying a range of methods taught.
- Take risks, ask questions, enjoy challenge and be confident to make and learn from their mistakes.
- Make links between their mathematical learning and the wider curriculum and life outside of the classroom.

Skills Progression:

At St Stephen, we use the objectives from the National Curriculum to ensure good coverage and challenge for all. We carefully track the objectives to ensure that new learning builds on prior knowledge and consolidates understanding showing sound progression across the depth and breadth of the subject. We plan for each block in maths following pre-block assessment and regularly reviewing previously taught concepts, ensuring the lessons are started at an appropriate level. We have developed a whole school progression document and year group/class progression documents to map the strands followed and the duration for each mathematical area.

As a staff, we regularly take part in 'book looks' where we share teaching and learning within a chosen strand of maths, ensuring consistency across common year group classes, and clear progression with neighbouring year groups. The staff also take part in activities based on curriculum awareness, such as matching objectives to year groups, sorting questions to ensure

small-step progression, and working with colleagues from other year groups on these activities to develop subject knowledge and progression expectation across all year groups.

Within lessons and topics, we ensure sufficient time is given to recall prior learning so that children are able to see and develop links within their learning.

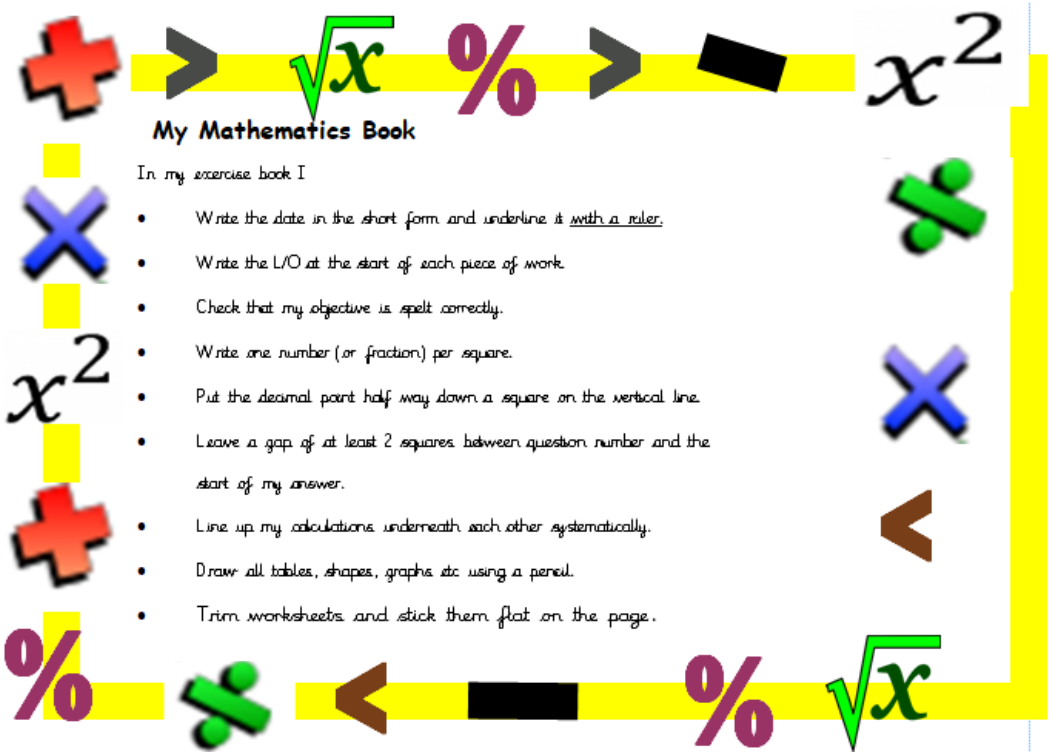
For further information, please see the subject overview grid and the skills progression document.

Contextual example:

For example, when studying maths, the children will be aware of the non-negotiables for the layout of their work (see the reverse of the front cover for non-negotiables for KS1 and KS2 for maths books.

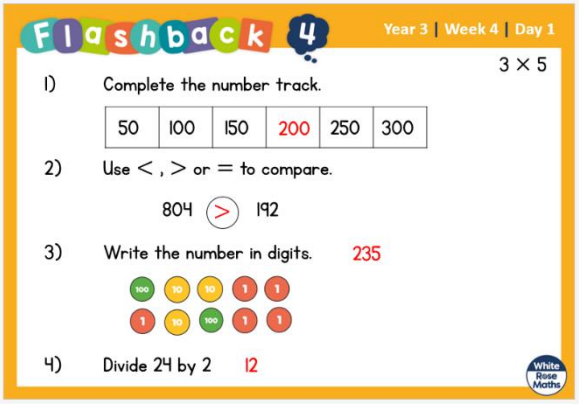
KS1

KS2



The children will complete a morning maths book activity at least 4 days a week

Monday	Tuesday	Wednesday	Thursday
Place Value Chart (Thousands, Hundreds, Tens, Ones)			
What is the place value of the underlined digit? 1,426	What is the place value of the underlined digit? 2,438	What is the place value of the underlined digit? 4,289	What is the place value of the underlined digit? 3,813
Write the number in expanded form. 47	Write the number in expanded form. 267	Write the number in expanded form. 418	Write the number in expanded form. 307
Circle the number with the GREATEST value. 24 83 42 67	Circle the number with the LEAST value. 24 83 42 67	Order the numbers from LEAST to GREATEST. 268 203 287	Order the numbers from GREATEST to LEAST. 375 329 403
Draw a number line from 0 to 100 (counting by 10's). Place the following digits on the number line in their correct location. **28, 37, 95, 77, 64, 8, 16, 51**			



The methods taught will follow the calculation policy.

Teaching and Learning Expectations:

- Lessons will promote a love of learning
- Activities/questions will promote curiosity
- A minimum of 5 hours work per week, alongside a daily morning maths activity to review/consolidate prior learning
- Links within other subjects, demonstrating mathematical understanding in a range of subject areas.
- Regular opportunities for AfL through a range of activities

Working Walls/Displays:

- Key words
- Examples taken from school calculation policy

- Examples of work linked to topic alongside models by the class teacher
- Images to support learning
- Posters to remain on display all year to promote understanding in areas such as time, fractions, shape.

Monitoring/Assessment:

- Summative Assessment - EYFS, end of KS1 and the end of KS2
- Formative assessment before the beginning of each strand in maths, highlighting any areas for pre-teach interventions and to give guidance on starting points for teaching.
- PIRA tests (Y 1, 3, 4, 5)
- Year 4 multiplication check
- Use of TT Rock Stars to monitor ability in multiplication facts
- Pupil Conferencing
- Learning Walk/Lesson Observations
- Work Scrutinies- colleague book looks in staff meeting time and whole school book looks carried out by maths lead and another maths partner/advisor and/or SLT.
- Reviewing and building on previously learnt facts through daily morning maths activities