



## **Mathematics at St Stephen Churchtown Academy**

Our aim is to equip all pupils with the skills and confidence to solve a range of problems through fluency with numbers and mathematical reasoning. Children are encouraged to see the mathematics that surrounds them every day and enjoy developing vital life skills in this subject.

At St Stephen Churchtown Academy we have been on a Mastery journey to improve the teaching and learning of mathematics. There are several elements which have influenced improvements in attainment which we can share with you. The three aims of the NC should be addressed every day (not just in the maths lesson) - Fluency - Reasoning - Problem Solving.

If you walk around our school, you will see displays and learning linked to these key areas on our Working Walls.

### **Mastery Mission Statement**

- At St Stephen Churchtown Academy, we have developed our own Teaching for Mastery Mission Statement which underpins our beliefs of how we feel Maths should be taught and what we reflect in our practice.

**Making Connections**

**Accessible for All**

**Small Steps**

**Thinking and Talking**

**Enthusiastic Learners**

**Reasoning and Explaining**

**Yes, you can do it!**

## Lesson Planning

- We use the Rising Stars Planning for Progression for our Medium Term planning. However, we are flexible with the time scales in order to cater for the needs of our children.
- At the planning stage, teachers consider what scaffolding may be required for children who may struggle to grasp concepts in the lesson and suitable challenge questions for those who may grasp the concepts rapidly. Decisions are not made about who these children may be prior to the lesson.

## Lesson Organisation

- We teach mathematics to whole classes and do not label children (this includes within the classroom).
- Lessons are planned based on formative assessment of what students already know and we include all children in learning mathematical concepts
- All of the children are taught the same area of Maths and move through the area as a class.
- In cases where children are working at below age related expectations they will work at a level which is appropriate to them.
- Resources are always readily available for the children to access.

## Lesson Structure

- Within our lesson we may introduce the main theme as a context.
- Our lessons are taught in very small steps which include a progression and variation of images (conceptual variation) questions (procedural variation) and problems to support understanding.
- These Small steps are taught within the lesson by using a constant 'ping pong' approach - teacher instruct - children do. Work is usually recorded on whiteboards.
- Questions throughout the lesson will probe pupil understanding throughout and responses are expected in full sentences, using precise mathematical vocabulary.

- Teachers use questioning throughout every lesson to check understanding - a variety of questions are used, but you will hear the same ones being repeated; How do you know? Can you prove it? Are you sure? Is that right? 'What's the value? What's the same/different about? Can you explain that? What does your partner think?
- Questions are also used to challenge children who have grasped the concept. Children are expected to listen to each other's responses and may be asked to explain someone else's ideas in their own words, or if they agree/disagree etc.

## **Books**

- In our books you will see a wide range of questions in order to promote depth and understanding.
- Our questions are very progressive usually starting with fluency style questions progressing with fluency style questions with twists. Although these are not presented as pages of mechanical exercises, you will see that the children still need to be confident and fluent in their approaches in order to access the questions.
- Within are books, you will see that we promote depth by also presenting reasoning style questions which may be presented by the use and the expectation of interpreting different visual images and questions extending to more problem - solving opening ended tasks.
- Resources such as NRich are also used to add depth and understanding.
- Due to the nature of our medium - term planning, concepts are re-visited each term.
- When learning new concepts children will all start at the same point and will work through the questions.
- Although concepts are re- visited, the questions which are given build on prior learning and attainment.
- If the teacher feels that a child is confident with a specific area, they may start at a later question.

## **Feedback and Marking**

- Within our lessons we always aim to give instant feedback so that any misconceptions can be addressed.
- Where and when possible, same day small group Interventions are given throughout the school if an area needs extra reinforcement.

- Books are marked in accordance with the school's marking policy.
- Time For Improvement and Challenge questions (TIC) are given in each child's book at least 3x a week for the child to respond to.
- **Classroom Environment**
  - In each classroom there is a Maths Working Wall highlighting the learning which is taking place.
  - Our Working Walls highlight the children's learning through the use of children's work, posters and modelled examples.
  - Each class has a resource area / table highlighting the manipulatives which we use.
  - We strongly believe that manipulatives are and should be accessible to all children.
  - We believe that consistency in the use of manipulatives and images is an essential part of the Maths journey. Please see attached appendix for our consistency in resources document for EYFS, KS1, LKS2 and UKS2.

### **Specific Groups**

- Our SEN children may be supported by additional adults, different resources, differentiated activities. They may also complete additional activities outside of the mathematics lesson. Some may take longer to grasp concepts and may need careful scaffolding or extra time/support (guided groups, same day catch-up, additional homework, pre-teaching, intervention group, morning/after school clubs, specific parent support).

NB: We do not label our children We have high expectations of all children and strongly believe that all children are equally able in mathematics. (Therefore our books do not show 3 differentiated levels of attainment. However, you will see questions/ activities where our children are challenged and encouraged to think and talk about their Maths to promote their understanding, application and enjoyment for the subject.