



# MATHS CURRICULUM

## STATEMENT OF INTENT, IMPLEMENTATION AND IMPACT

### INTENT

At St Chad's, our overall aim is to equip all of our pupils with the life skills they need to be able to flourish in the real world and promote a love of maths. We aim to ensure that, regardless of background and ability, every pupil has a rich and meaningful mathematics education. Both staff and pupils understand the importance of automaticity and fluency within maths and this is taught through real life contexts to enable pupils to apply their understanding, reason about maths, problem solve and make connections across the subject and the wider curriculum. We believe in a language rich environment and our pupils will leave us with the confidence to talk maths, do maths and apply maths to their everyday lives.

### IMPLEMENTATION

#### Our Curriculum:

Our maths curriculum is based on White Rose which is a whole-class mastery programme designed to spark curiosity and excitement and help children develop confidence in maths. Staff have received vigorous training from the maths lead who has been trained by the NCETM and has also has specific Singapore maths training with Inspire Maths. As a school, we have also completed the NCETM 'Mastery Readiness' program and well as the 'Maths Mastery' program to develop mastery in school and our staff are confident and feel empowered to deliver the maths curriculum, and have the resources and support they need to achieve this.

Teaching sequences are based on small steps to ensure a good level of coherence, understanding, application of understanding and transference of skills to a range of mathematic problems and contexts.

White Rose maps out a long term plan based on 12 weeks in a term. At St Chad's, we have tailored this scheme to suit our pupil's needs by mapping out the actual weeks in a term, and adding in extra units where needed such as problem solving week, extra units for consolidation or revisiting skills taught earlier on in the term.

#### Maths lessons:

Every one of our maths lessons is based on the principals that all children can achieve, which is our belief at St Chad's. Children are taught in mixed ability groups, with all children accessing the same learning. This allows all children to be exposed to the same content and be offered the same opportunities, rather than placing a cap on children's learning. Pupils are then given tasks to enrich and stretch this learning in the form of challenges to further challenge the greater depth pupils, and those who may need extra support are supported through scaffolding such as using mathematical manipulatives or by requiring teacher/TA support. No pupils will be given different objectives unless they have an EHCP/SEND.

- Each lesson begins with a revisit of previous learning in the form of a flashback 4 (something from last year, last month, last week and the last lesson). This enables pupils to exercise their working memory and to better retain facts taught previously.
- A mental warm up is then completed that either links to work done in the last lesson, or the current lesson. The new lesson content is then introduced in the form of small steps and a ping pong style session. There are opportunities for guided practice and independent practice and concrete materials are always on hand if pupils need them. They make that choice themselves to enable them to own their own learning. Each slide takes the pupils through learning rapidly but the small steps mean that pupils are all brought along together as a whole.
- The independent tasks are then explained and the pupils complete their work at the level that suits them, starting on different questions depending on ability/confidence. The tasks are high ceiling low entry, so that everyone can access the first questions and then go as far through them as they can, completing the stretch and challenge activities if possible.

- Teachers active mark through the lesson to provide immediate feedback and intervention where needed. TA's do not always sit with a group as we aim to ensure that all pupils develop independence. So once they have introduced and supported certain pupils, they will leave them for independent practice and revisit them to monitor. TA's will also active mark in class and provide immediate feedback to pupils and the teacher where needed.
- Mini plenaries are used effectively to address common misconceptions identified by active marking.
- Our plenaries are usually in the form of whole class reasoning or 'true or false' style questions to enable the whole class to experience this level of reasoning.
- All teachers complete whole class feedback sheets to inform future planning to identify who may need reactive intervention or who may need to work in a smaller group the next day. We do not provide written feedback to pupils in books or expect this from staff and research shows that verbal feedback at the time of the misconception is more beneficial to move learning forward. Pupils are encouraged to self-mark where appropriate and are expected to correct their mistakes which is shown in purple pen (see marking and feedback policy).

#### **Assessment:**

- Teachers and TA's actively assess daily and provide immediate feedback to move learning forwards.
- End of unit assessments are carried out from the White Rose scheme and supplemented with other activities where needed.
- Every half term we carry out practical maths table top activities whereby we set challenges, problems and questions for pupils to apply previously taught objectives to enable staff to see whether or not the learning has been retained.
- Our bespoke assessment system is then updated on a half termly basis to keep track of pupil attainment.
- We complete an NFER assessment at the end of each term which also feeds into our robust assessment process to inform/support our teacher assessment judgements.
- Termly moderation is carried out during whole school staff meetings
- Maths lead takes part in regular maths pupil voice meetings, regular triangulation of results to assess teacher judgements and full reports on maths audits are presented to governors.
- Book scans are carried out termly by the maths lead and support put in place for any staff who need it in the form of coaching.
- Termly pupil progress meeting are held to discuss pupils and lesson observations in maths by the maths lead are conducted once a year and support put in place if needed.

#### **Extra opportunities:**

- Some pupils may receive extra support to try to catch up/fill gaps from previously missed learning due to COVID or SEND. We have been working with our local maths hub to implement the ready to progress criteria in our small group interventions and we use the NCETM videos and resources to upskill our TA's and to provide a structure for such interventions.
- Weekly homework is sent home with pupils which supports the learning that week and weekly times tables/mental maths tests take place every Friday morning. Regular feedback on maths is given to parents/carers during our termly parents evenings and at the end of the year in their school report.
- 'Barvember' is completed each November during registration and maths work is celebrated in each classroom.

## **IMPACT**

Results at St Chad's form EYFS to Y6 are higher than the national average in all areas including those working at greater depth. We have seen yearly improvement in our greater depth results and our pupils are stretched much more now with the implementation of a mastery way of learning.

When observing our pupils you will hear them talking enthusiastically about their maths and speak about how they love the subject. You will hear them celebrating their mistakes and learning from each and every one they make. You will see a growth mind-set where they are not afraid to jump into the learning pit and struggle to get out - as they know that this is how they learn and make new neurological pathways. You will see a class enthused, engaged, challenged and on task. You will see independence and pupils supporting their peers and explaining tasks to one another. You will see a team, togetherness, and pupils loving learning. You will see pupils ready to use and apply their maths in their everyday lives.