

St. Chad's Catholic Primary School

Maths Overview

The intent of Maths at St. Chad's

To ensure all pupils develop a secure foundation for understanding *number, shape, patterns, reasoning, logical thinking and problem solving* with resilience so that they are fully prepared for their future.

We aim to develop a positive culture of deep mathematical understanding, confidence, competence and curiosity in maths that results in secure learning, automaticity and consequently learners, who recognise and access the power and place of maths in the real world.

We aim for all pupils to develop a love of maths and mathematical thinking skills.

Presentation

- Date to be written top left.
- LO on the next line on the left.
- Date and LO to be underlined with a pencil and ruler in KS2
- PP (perfect presentation) on the next line on the left.
- In KS2, pages to be split in half where appropriate

Daily Maths Learning

- Fluent in 5 at least four times a week when children arrive at school
- Daily Maths lessons with the following structure:
 - Date and LO
e.g. 14/9/23
LO: To add two two-digit numbers.
 - PP – Perfect Presentation
A maths vocabulary word related to the lesson
 - Arithmetic starter
 - PK - Prior Knowledge Question
 - Main teaching and learning with adaptive teaching
 - Blue dot challenge
- Hot Listing

Weekly Maths Learning

- TTRS on the iPad
- 4 Ops lesson every Friday following the medium-term plans

Assessment

- Formative assessment throughout lessons and through daily marking
- Summative *end of unit* tests are completed and stuck in Maths books
- Hot listing and / or the following lesson, misconceptions and gaps should be addressed based on the end of unit tests
- End of term summative assessment tests

Marking

- Always highlight LO green or yellow to indicate whether it has been achieved.
- Tick or dot to indicate whether an answer is correct or incorrect
- Where appropriate, circle mistakes
- Incorrect number formation should sometimes be indicated and then correctly modelled for children to practise.
- Frequent positive comments in books.
- Provide a clarity question, when necessary:
Clarity/misconception marking is used to clarify whether a child understands what they have been learning or to further challenge them.
Blue dot questions are used to 'deepen the moment' during lessons meaning clarity questions are not often needed but can be used when necessary.

Marking codes

Symbol	Details
I	Independent
S	Supported
PW	Paired Work
Signature	Work initialled by teaching assistant or supply
VF	Verbal feedback
Sp	Incorrect spelling
P	Missing/inaccurate punctuation
DP	Dojo Point
	Learning objective not met Work highlighted shows an area of development
	Learning objective met Work highlighted

PP First Strategy in Maths

- When asking questions during teaching, we use the PP First approach to ensure that PP pupils are asked for their responses first and have immediate feedback. This should be subtle but consistent.
- Once children are set off to complete a task, approach PP pupils first to ensure that they understand the task and are able to complete it.
- During hot-listing and interventions, ensure PP pupils are given additional opportunities to revisit learning in addition to lesson time.

Adaptive Teaching

- All children (unless very specific SEN needs) should be working on the same LO.
- Adaptive teaching is used where a teacher will adapt activities/tasks to better match pupil need. Prior knowledge questions are used to assess children's knowledge and understanding at the beginning of each lesson, teachers then adjust teaching to support all pupils to make progress.
- There are high expectations for all pupils and lessons are adapted so that all pupils have the opportunity to meet expectations.

Examples of Adaptive Teaching in Maths

The following strategies are used in the teaching of maths:

- Readily available maths resources such as base 10, Cuisenaire rods, cubes, mechanical clocks, number frames and shapes.
- Adjust the level of challenge
- Scaffolded questions including partially completed questions
- Worked examples available as a visual tool
- Adapting wording and presentation of questions to focus on the key maths knowledge
- Rephrasing verbal questions
- Give additional examples
- Use peer tutoring
- Split children into groups based on the PK question and provide additional scaffold for those who need it
- Set an immediate goal
- Structure a group attempt before children attempt individually
- Improve accessibility (read to a child, proximity to board)

Maths Terminology

Category	Type 1	Type 2
Declarative 'I know that'	Facts and formulae	Relationship between facts (conceptual understanding)
Procedural 'I know how'	Methods	Relationship between facts, procedures and missing facts (principles/mechanisms)
Conditional 'I know when'	Strategies	Relationship between information, strategies and missing information (reasoning)

Content category	Type 1 practice	Type 2 practice
Declarative	Fact retrieval (recall)	Explaining relationships between facts (derivation and parsing of number)
Procedural	Method rehearsal (exercises)	Explaining principles, proving conceptual understanding (such as, use of informal methods, creating bar models and interpreting context)
Conditional	Strategies rehearsal (collections of problems with the same deep structure)	Describing relationships between the problem and choices of strategy (proof/reasoning)