

## A Journey into Maths 2023/2024





#### **Intent**

In order to ensure that we provide all of the knowledge for pupils to access we use the Rising Stars objectives. These set out the national curriculum objectives, and we store them in medium term plans, split into 4 key areas "Number Sense", "Additive Reasoning", "Multiplicative Reasoning" and "Geometric Reasoning". We give pupils the opportunity to access various areas of mathematics e.g. measurement and fraction, during the same thread, allowing for a more realistic exploration of maths.

Alongside teaching the 4 key areas we also have one discovery maths session per week where classes focus on investigations which support them with their problem solving and reasoning skills. Sentence stems are used in these session to support children with their reasoning.

Not only do we expect children to learn the knowledge set out in the national curriculum, but also to have an awareness of maths in everyday life, along with being able to think for themselves about how to solve problems- drawing on a range of different strategies and techniques. Through our staff's attitudes we hope to reverse the stigma around maths being "too hard" and instead enable children to see maths not just as a topic they learn in school but something which is applicable in life.

#### **Implementation**

Lessons are broken into 3-6 steps, dependent on age group and subject coverage.

Step 1: Fluency, revision of a pre-requisite skill or basic practice

Step 2: Ramp it up- add in another mathematical element

#### Step 3: Reasoning and problem solving

#### Repeat

This allows all children to have the opportunity to practice their problem solving and reasoning skills (step 3) as well as ensuring areas of maths are linked together and kept simmering (in step 2 specifically.)



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Discovery maths sessions do not follow this structure and therefore support children in meeting the problem first and then needing to select which area of maths is appropriate to solve it.

Repetition is key to ensuring that children keep all areas of maths simmering, linked and long term. Step 2 of our daily lesson structure supports this, as do our discovery maths sessions as they do not necessarily link to the area which they have been studying that week.

Children are assessed every term against each of the national curriculum objectives for their year group using NFER assessments to inform teacher assessments each term. Children are assessed as working below/towards/at the expected standard, or at greater depth. Teachers and TAs are constantly assessing pupil's understanding during the lesson and implementing live marking. We aim to recognise misconceptions quickly and address these for individuals, small groups or the whole class.

Our calculation policy demonstrates the manipulatives- images- abstract approach to learning and understanding, which is used in all classes with all ages. We regularly have staff discussions about maths and strategies and resources which will support pupils further.

### **Impact**

Along with enabling all children to reach their potential with regards to the maths national curriculum, we also see many children **excited** about maths and positive about their attempts to tackle maths in everyday life. They are aware of its place in the world and predominantly have the foundations they need to understand this upon leaving primary school. They have learnt that not being able to do something, or understand something, the first time, is more than just ok but in fact a vital part of the learning process. They have shown resilience and perseverance and an ability to tackle problems themselves.

#### **Priorities for next year**

Priorities for 2024/2025

- 1) Completing the NCETM Mastering Number in Reception and KS1 project
- 2) Evaluating the use of "quick maths" in KS2
- 3) Investigating further continuous provision for maths