

## Maths at Northfield St Nicholas (2018-2019)

- Maths takes place every day. There are three daily sessions—times tables, maths fluency & mastery and maths workout. In addition to this, maths activities are embedded into daily continuous provision in EYFS.
- All classrooms have maths resources and a maths working wall. Models and images are available to children. Children know where these are and are able to help themselves. Teachers outline the use of models and images in their planning.
- Teachers follow the Inspire Maths mastery programme alongside PIXL assessment tools to ensure gaps are filled.
- There is a strong emphasis on reasoning as identified in the SIDP.
- The school's calculation policy ensures consistent progression across the school, from EYFS through to Y6.
- Staff training and INSET sessions are run by a Maths Mastery Specialist to ensure that teachers have strong mathematical subject knowledge.
- Teachers recognise and intervene in a quick and focused way when pupils encounter difficulties (for example through plenaries or instant feedback). This ensures that misconceptions do not impede the next stage in learning. Where possible, teachers will mark or monitor the maths books in the session to ensure that rapid intervention can take place.

### Whole School Maths—Inspire Maths

In Northfield, we are embedding the mastery approach to teaching mathematics at the start of the children's learning adventures. We are using the Inspire Maths programme. Through careful lesson planning, all children are on a learning journey together from a shared starting point through small coherent steps, delivered via a 'ping pong' approach (short teacher input, followed by short bursts of peer/independent activity) that are achievable by all. Independent tasks are differentiated. It is expected that all children will access the learning through appropriate support. Challenge will be available to all through opportunity for deep learning, reasoning and open ended challenging problems. Teachers use procedural and conceptual variation to provide intelligent practice and our learning uses a CPA model (concrete, pictorial, abstract).

### Maths Workout

These daily sessions are used to revisit previous learning, leaving a two-three week gap, to ensure knowledge has been retained and consolidate learning. This mastery approach allows the robust monitoring of achieved objectives.

### Mental Maths (Number Bonds, Times Tables, Mental Arithmetic)

Daily sessions take place across all phases at an age appropriate level.

### Mastery Approach to Teaching

A Mastery approach rejects the idea that some children 'can't do maths'. In some classes, children may support each other's learning in mixed ability pairs. Children will use carefully chosen equipment to represent mathematical problems to expose mathematical structures. Children can talk and explain the mathematics they are learning. The learning of 'slower graspers' is scaffolded by showing a physical model, drawing an appropriate representation, explaining the problem orally or in written form and by challenging themselves and their own thinking.

### Maths at Home

Pupils are encouraged to carry out maths activities at home as part of the school's times table focus. Details are included weekly on newsletters and help is available on the website.

Year 5 have a maths club open to parents focusing on maths mastery

Year 6 have maths booster sessions for students.

Children have logins for PIXL timestables and Times Table Rockstars which are both online maths learning platforms.

Maths Contacts: Paula El-Shunnar is training to be a Mastery Specialist teacher, working with the NCEM Maths Hubs alongside her Maths Mastery teaching partner, Stephen Connolly. They are both happy to discuss our Mastery journey so please ask if you have any questions.