Mathematics Curriculum

At Eastwood Village Primary School, we are working towards developing our children to become confident, resilient and competent mathematicians. Our intention is to ensure that fluency, reasoning and problem - solving skills are practised through a variety of approaches and with support from a range of resources. All learners will follow a mastery style curriculum which aims to make a difference to every pupil because it is designed to ensure that "Everyone can". We are striving to ensure that children not only "Know" but "Remember" through daily recall and practise. We want to promote a love of mathematics so that not only do children appreciate its power and wonder but because of that, levels of achievement are raised.

INTENT

Alignment to National Curriculum

At Eastwood Village Primary School, we have chosen a "mastery approach" to the teaching and learning mathematics which means that if learners don't get something the first time, then they should be taught again and in different ways until they do, through the use of a range of resources and representations.
We follow White Rose Maths which is a small-step, mastery-based scheme of learning. We use a concrete – pictorial - abstract approach so that children can build competency when facing new concepts.

Our aim is for children to become fluent in the fundamentals of mathematics, be able to reason and solve problems by applying their mathematics. We want to create confident, happy learners who can reach and exceed the age-related expectations to prepare them for the next stage in their education. We want children to know that everyone can DO maths and can succeed!

IMPLEMENTATION

Pedagogical Approaches

In order to support children through their mathematical learning journey, there are various approaches to teaching maths which help meet the needs of all learners. Adults in the classroom will consider the needs and abilities of the pupils in their class and how best to meet them so they can access their learning and also be suitably challenged
Teacher modelling to the whole Class or group is really important as then there can be lots of practise on whiteboards "My turn" "Your turn" before working on their own tasks in either a small group with an adult, independently or paired.
Concrete resources and use of pictorials are key to supporting children. Games and puzzles can also be a great way to engage children. Groups may be fluid and change depending on the lesson that day. Children are engaged and involve in their learning rather than passive.

Teachers' Expert Knowledge

Teacher development is central to the success of Maths teaching. Whole School workshops and Subject Knowledge Enhancement workshops can be delivered by the Maths Lead. Teachers and support staff are regularly updated on new developments and good practice. Our scheme offers excellent resources, CPD, tools, advice and guidance.

IMPACT

Approach to Assessment

Teachers review pupils' work on a daily basis to identify any pupils who need same day intervention and to inform planning. Assessment is against the Sheffield STAT and White Rose end of unit assessments are used throughout the year to identify gaps.

End Points Sequencing

For each year group, the scheme of learning includes an overview of the maths that children should be learning at any point in the year. Each year is split into three terms (autumn, spring and summer), and each term comprises individual blocks of learning about a particular topic. Lots of time is spent building strong number skills in Key Stage 1 and Key Stage 2. These essential core skills lay a solid foundation for more complicated learning later on. Sometimes classes might be a little behind or ahead of the scheme schedule but that is fine because there is some flexibility built into the schemes to allow for these variations. Some year groups may wish to vary the order they teach the blocks because of national tests.

Addressing Social Disadvantage

We hope that our children become resilient learners who discover that maths brings an exciting journey of discovery, understanding – and a lifetime of opportunities. Our aim is to deliver the curriculum to all pupils and to support individuals in their learning. We are also conscious that we are socially deprived area and due to this, we provide resources for home use to deprived families, provide activities for out of school and encourage learning outside of school.

Promoting Discussion and Understanding

Our lessons involve discussion with a partner or in groups throughout the lesson. It may be about a particular concept, explaining reasons when problem solving or discussing why an answer is correct or incorrect. Sentence stems are displayed on working walls to help children structure their responses. APE sheets help children to answer by providing them with sentence explanations to support their answers.

Knowing More and Remembering More

Children have opportunities for daily practise and consolidation both in and out of the maths lesson. “Maths mash ups” involves revisiting learning from previous years, whilst the use of TT rock stars daily ensures that children are securing multiplication facts and knowledge. At the start of the maths lesson a quick recall and recapping of learning from yesterday, last week, last month or last year helps children to remember more and retain maths

Performance Data

We use an assessment tracking tool caused EAZMAGS. Teachers upload their data after teacher assessments are made. This can then be used to identify children who are making the right amount of progress and those who may need intervention. In addition to this, groups of children can be tracked and we can use the data to make predictions and to set future targets.

Pupils’ Work

The school has high expectations of all children in terms of the quality and presentation of their work, which we believe leads to a sense of pride. Emphasis on precision of number and symbol formation supports pupils to think logically, organise their reasoning and represent the maths accurately. Photographic evidence which shows children using manipulatives and concrete equipment is used frequently in mathematics lessons.

Talking to Pupils

All members of the senior leadership team and, particularly, the maths leader talk informally and formally to the pupils as part of the regular monitoring. The purpose is to explore what they have learnt and what they can remember as well as how much they have enjoyed it. In mathematics, this is generally based around conceptual understanding. Key improvement actions can be identified as a result.

knowledge. Our Mastering Number Programme, originally an NCETM project is continuing to support children in EYFs – Year 2 to develop fluency in number.

Local Context

As one of the most deprived areas in the UK, it is important for us to bridge the gap where possible. To do this, we provide interventions where needed and strive to deploy adults effectively so that small groups can be taught successfully. Due to the culture of many of our families, there is constant mobility so we have to revisit concepts regularly from previous year groups and from a range of maths topics to ensure that missed learning is addressed and pupils do not suffer as a consequence.

Teacher Assessment

Each part of the lesson is an opportunity for the teacher to assess the learning before moving onto the next part. Through the use of the whole class feedback, books, quizzes and talking to the children, misconceptions are identified and addressed.

Links / References

https://whiterosemaths.com/
https://ttrockstars.com/
https://www.ncetm.org.uk/
https://nrich.maths.org/