

Holy Trinity C of E Primary School



Mathematics Policy

Rational

Mathematical skills are essential to everyday life. Our aim is to maximise the potential of our children's understanding and knowledge. Teachers encourage children to develop skills using an interactive approach, providing opportunities for children to develop their calculation skills, test their answers and solve numerical problems confidently. All children are taught a range of written calculation methods as they progress through the school. They will be encouraged to use informal expanded methods and compact standard methods when applicable. (See written calculation policy)

Aims

The National Curriculum for mathematics aims to ensure that all pupils:

- Become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- Can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

At Holy Trinity we aim to inspire all children to have a love of mathematics. We also specifically aim to:

- Develop a positive approach to the learning of mathematics by providing challenge, personal attainment and a sense of achievement.
- Create confident children who are able to express, question and discuss ideas when undertaking activities.
- Develop skills of mental arithmetic in order to support and enhance mental calculations, check answers and foster an understanding of the relationships in mathematics.
- Use practical and investigative approaches where possible in order to strengthen understanding of pattern and relationships.
- Use mathematics to explore everyday situations and to communicate with others.
- Develop mathematical vocabulary and use of equipment appropriately.
- Involve and inform parents and carers of strategies to help their children.

Attainment Targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Teaching styles

Children are taught in a variety of ways according to the age of the child and the objective of the lesson. Daily lessons incorporate opportunities for children to develop their mental arithmetic knowledge, written calculation methods together with opportunities for speaking and listening. Children are encouraged to answer and ask questions and use a wide range of practical resources such as number lines, number squares, base ten equipment, digit cards and small apparatus. ICT is also used during lessons to enhance learning through the use of Interactive white boards and interactive mathematical software programmes. Children will be taught in small groups or as a whole class with a range of differentiated activities, open-ended problems and games. Individual and group support is also provided by teaching assistants.

Planning

Mathematics is a core subject with thorough planning by all teachers, which is collected in weekly by Key Stage leaders and monitored. The Programmes of Study for Mathematics, taking into account the Key Learning elements for each year group, are used as the basis for implementing the statutory requirements of the new National Curriculum 2014.

Early Years Foundation Stage

Our Reception children follow the requirements of the 'Early Learning Goals for Mathematical Development'. Children develop their understanding of number, measurement, pattern, shape and space through teacher led and child initiated learning activities including stories, songs, games and imaginative play, that allow them to enjoy, explore, practise and talk confidently about mathematics. Towards the end of Reception, teachers aim to draw the elements of a mathematics lesson together so that by the time the children move into Year 1 they are more familiar with this delivery.

Key Stages 1 and 2

The programmes of study for mathematics are set out year-by-year for key stages 1 and 2 and identify the Key Learning aspects of:

Number (number and place value), Number (addition and subtraction), Number (multiplication and division), Number (fraction)
Measurement (length/height, perimeter, area and mass/weight), Measurement (time)
Measurement (money and solving problems)
Geometry (properties of shape) Geometry (position and direction)
Statistics

Upper key stage 2 will also include:

Ratio and proportion

Algebra

Teachers will follow the guidance in the Mathematics Progression National Curriculum 2014 document.

Inclusion

Children with special education needs and disabilities, (SEND) are taught within the mainstream class and work differentiated accordingly. Children's Pupil Passports take into account the targets set for these children.

Children's progress is tracked termly and intervention strategies are used as appropriate throughout the school to support and scaffold children's mathematical development. Teachers not only provide activities to support children who find mathematics challenging but also provide appropriate challenges for children who are high achievers in mathematics.

Presentation of work

- Children write in pencil.
- From Year 1 squared paper is used to record calculations.
- Children in Years 1 – 6 write the date in numbers and the learning objective(s).
- Each classroom has a 'working wall' display board where new vocabulary and key concepts can be displayed linked to the concept being taught.

Marking and Feedback

Teachers mark children's work using a green pen and where appropriate provide 'moving on' or 'next step' comments. The children are also given time to assess and evaluate pieces of their own work and respond to marking. (See Marking policy). When appropriate, children, towards the end of KS 2, are also encouraged to check their answers to calculations using calculators. Monitoring of marking and presentation also takes place through regular book looks with comments and feedback to teachers.

Assessment

Children in Reception are assessed in mathematics against the Early Learning Goals. Children in Years 1-6 are assessed termly using PUMA (Progress in Understanding Mathematics Assessment) tests. Children at the end of KS1 (Yr 2) and KS2 (Yr 6) take the SATs in mathematics.

Teachers also assess learning using KLIPs (Key Learning Indicators of Performance). These levels of attainment are tracked termly on the Lancashire Tracker allowing for individual monitoring of a child's progress.

Assessment of pupil work and progress is constantly taking place, through marking and observations made during the lesson and this informs future planning.

Reporting to Parents

Annual reports are completed before the end of the summer term and parents are given the opportunity to discuss their child's progress at parents' evenings through-out the year. We also encourage parents to contact school and arrange to see class teachers with any issue relating to their child's education.

Cathryn Whalley
Mathematics Subject Leader
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