

# **Pensans CP School**



## **Mathematics Policy**

Reviewed on: September 2019  
Next Review Date: September 2021

# **Mathematics Policy**

## **Contents**

- 1 Aims and Objectives
- 2 Teaching and Learning Styles
- 3 Mathematics Curriculum Planning
- 4 Links to Other Curriculum Areas
  - 4.1 English
  - 4.2 Computing
- 5 Resources
- 6 Assessment and Recording
- 7 Monitoring and Review
- The Role of the Mathematics Co-ordinator
- 8 Reporting
- 9 Equality, Inclusion and Diversity
- 10 Special Needs Provision / Gifted and Talented
- 11 Policy Review

## **1 Our Vision, Aims and Objectives**

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. Through our work at school in Mathematics, we hope the children will gain the knowledge and understanding to confidently use these skills in their everyday lives.

The aims and objectives of Mathematics are:

- To promote enjoyment and enthusiasm for learning through immersive practical activity, exploration and discussion
- To promote confidence and competence with numbers and the number system
- To develop the ability to solve problems through decision-making and reasoning in a range of contexts and use problem solving skills in different contexts across the curriculum.
- To develop a practical understanding of the ways in which information is gathered and presented
- To explore features of shape and space and develop measuring skills in a range of contexts
- To understand the importance of Mathematics in everyday life through real challenge based activities.

## **2 Teaching and Learning Styles**

The school uses a cohesive teaching and learning style in Mathematics lessons. This entails a clear lesson design that incorporates Fluency, Guided Practice and Independent Practice. Through the independent practice the children are expected to complete Do It, Secure It and Deepen it activities to show they have a clear understanding of the concepts and then can go on and show greater depth. Our principal aim is to develop children's mathematical fluency, reasoning and problem solving in Mathematics. We do this through lessons that start with whole class teaching and quickly move the children's learning through small steps. We encourage children to challenge themselves and are set challenge based tasks to apply their understanding at the end of a strand encouraging the children to use and apply their learning in everyday situations. Children are encouraged to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources to support their work. Children use technology in Mathematics lessons, through the Interactive Whiteboard and tablets, where it enhances their learning through modelling ideas and methods.

In maths we teach year 1 and 2 separately and all the children across the school are of differing mathematical ability. Using the Mastery approach we are able to move the class forward together quickly and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We use Teaching Assistants to facilitate some children both in and out of the classroom, and ensure that work is matched to the needs of individuals. Children also complete 10 in 15, 99 Maths club challenges weekly and Mathletics.

### **3 Mathematics Curriculum Planning**

Mathematics is a core subject in the National Curriculum 2014 and we use the objectives outlined for each year group as a basis for implementing the statutory requirements of the Programme of Study for Mathematics. The Programmes of Study in the National Curriculum 2014 gives a detailed outline of what we teach in the long term. Our medium term plans, taken from the Mathematics Programmes of Study objectives in the National Curriculum 2014, ensures an appropriate balance of work across each term using the non negotiable and ensuring there are opportunities for challenge based activities. Maths lessons are taught every day and teachers reflect daily to adapt the planning as required. From year 1 to year 6 daily Marvellous Maths is taught for 20 minutes to increase mental arithmetic and problem solving skills. Times tables are taught and tested weekly. Mathematics is taught in our Foundation Stage as an integral part of the curriculum. The Mathematics objectives are taken from the Early Learning Goals as set out in the Early Years Outcomes document which underpins the curriculum planning for children aged birth to five. All the children are given ample opportunity to develop their understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about Mathematics.

### **4 Links to Other Curriculum Areas**

#### **4.1 English**

We encourage children to read and interpret problems in order to identify the Mathematics involved. They explain and present work to others. Younger children enjoy stories and rhymes that rely on counting and sequencing. Older children encounter mathematical vocabulary, graphs and charts when using non-fiction texts.

#### **4.2 Computing**

The use of computers and tablets is built into the delivery of the Mathematics programme wherever possible. This enables the children to use and apply their developing skills in Mathematics in a variety of ways. Interactive white boards are used in all KS1 classes as an integral part of the daily Mathematics lessons to enhance teaching and learning. Mathletics has been introduced across the school to engage children in class activities and homework tasks.

#### **4.3 Immersive learning**

Through our Real Project Immersive Learning we try to incorporate mathematics through challenge based learning tasks to make children aware of the use of maths in real life situations.

### **5 Resources**

Most Mathematics resources are stored in a central area so all classes can access them but every classroom contains manipulatives and key equipment. In the classrooms these should be, either on display or easily accessible to children, level appropriate resources, particularly concrete and pictorial apparatus to support children to grasp concepts. Mathematical vocabulary should be

displayed so that children use this in the communication of their understanding and working walls should be in place.

## **6 Assessment and Recording**

We assess children's work in Mathematics in three phases: short-term, medium-term and long-term. Targeted under-attaining pupils receive additional support from trained staff through intervention groups. These groups change throughout the year depending on the progress and needs of different cohorts. We also carry out same day intervention or pre teaching to address any misconceptions on that day. We have clear non negotiable for presentation and expectations set from EYFS to Year 6. The short term assessments that we make as part of every lesson help us to adjust our daily planning. We match these closely to the teaching objectives and to identify any remedial intervention required with identified children. The marking of children's work and use of pupil conferencing, which is in line with the school Marking Policy, helps children and teachers to set targets for improvement and celebrate achievement. We use medium term assessment data to a) measure progress against the key objectives, b) help plan for consequent units of work, c) help teachers devise personal targets for the children in their class and d) identify and provide any necessary intervention to identified individuals or small groups to support their learning. We use long term assessments on a half-termly basis when pupils' attainment and progress is measured against school and National targets. The school assessment procedure is used to measure attainment and school tracking system -Scholar Pack is used to record progress data. End of year assessment data is analysed in order to identify current strengths and weaknesses within the subject and to plan whole school improvements in Mathematics teaching. Children take the National tests in Year 6 and Year 2.

## **7 Monitoring and Review**

The policy and practise will be monitored and evaluated by the Mathematics Subject Leader, the Head Teacher and the management team. Teachers are observed as part of the School Development Plan to achieve high expectations in Mathematics teaching and learning.

The Role of the Mathematics Co-ordinator:

- To attend training to broaden knowledge of teaching Mathematics, to have regular updates about the current National and local targets and new initiatives, and to meet with the family of school's Mathematics team.
- To observe colleagues periodically to identify strengths and any support that might be needed.
- To report regularly to the school governors
- To lead, manage and monitor the implementation of the Mathematics Curriculum 2014
- To developing an action plan for achieving school targets for publishing in the School Development Plan
- To liaise with the Mathematics Governor.
- To scrutinise and moderate Mathematics work.
- Produce a subject celebration file of excellent work and practice across the school
- Pupil Conferencing
- Check termly projects for subject coverage.

## **8 Reporting**

All parents receive an annual written report in which there is a summary of their child's effort and progress in Mathematics over the year. Parent consultation evenings are held twice a year when children's progress in Mathematics is outlined and discussed. At the end of Key Stage 1 and 2, each pupil's level of achievement, measured against National Standards, is included as part of

their annual report. In all year groups, the children's level of achievement based on teacher assessment is included in their annual report.

## **9 Equality, Inclusion and Diversity**

At Pensans School, we aim to ensure that no pupil experiences harassment, less favourable treatment or discrimination within their learning environment because of their age; any disability they may have; their ethnicity, colour or national origin; their gender; their religion or beliefs. We value the diversity of individuals within our school and do not discriminate against children because of 'differences'. We believe that all our children matter and we value their families too. We give our children every opportunity to achieve their best by taking account of our children's range of life experiences when planning for their learning. The planning and organising of teaching strategies for each subject is consistently reviewed to ensure that no pupil is disadvantaged.

## **10 Special Needs Provision / Gifted and Talented**

As an inclusive school we recognise the need to tailor our approach to support children with special educational needs, those disadvantaged and on the Pupil Premium register as well as those who are identified as gifted and talented. Children are highlighted through SEND coordinator and rigorous assessment half termly. Children work alongside trained TA's to implement precision teaching, small and individual group intervention to reinforce learning that has taken place in class. Use of Active Numeracy sessions have made activities more engaging for the children. All children matter and are given every opportunity to achieve their best. As well as specific programmes for children with special needs there are 'Gifted and Talented' Mathematics workshops within school and links with the local comprehensive school (Y5/6). Also the implementation of Challenge Based Learning tasks allow children to extend their and apply their knowledge of mathematics to a higher level.

## **11 Policy Review**

This policy will be reviewed in keeping with the Policy Review Cycle.