

POLICY FOR MATHS



September 2022

As a rights Respecting School we believe that all children have the right to an education. Article 28

Ratified by the Full Governing Body on:

Chair of Governors Signature:

THE PINES SCHOOL POLICY

FOR MATHEMATICS

INTRODUCTION

From our earliest explorations of space and things, elements of Mathematics are running through our lives as we investigate and communicate about our world and turn experience into understanding.

Maths is a tool that supports our practical existence in many ways, by helping make comparisons, identify differences, investigate relationships, establish connections and carry out practical activities.

Mathematics is a tool for everyday life. It is a whole network of concepts and relationships that provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems.

The teaching of Mathematics at The Pines School is the responsibility of all staff.

OUR AIMS

- To provide stimulating, structured activities through which mathematical concepts and precise mathematical vocabulary can develop.
- To give all children the opportunity to develop practical mathematical skills which they can use in everyday lives.
- To encourage the use of mathematical language in order to describe and discuss ideas and interpret results at an appropriate level.
- To empower every child to fulfil his or her potential.
- To create a stimulating environment that encourages the pupils to want to learn.
- To develop a positive attitude towards mathematics and an awareness of the fascination of mathematics, including the observation of patterns and relationships which lie at the heart of the subject
- To develop an enquiring mind.
- To give all children competence and confidence in mathematical knowledge, concepts and skills
- To encourage an ability to solve problems, to reason, to think logically and to work systematically and accurately
- To develop the initiative and ability to work both independently and in cooperation with others, and to select the correct materials for the task set

- To engender the confidence to understand mathematics through a process of exploration, enquiry and experiment

Knowledge Skills and Understanding

In the Early years teachers plan their sessions using the child's interests as a starting point. Experiences and activities are recorded in a learning journal and using Tapestry. Children are encouraged to explore different mathematical ideas using a wide range of concrete resources that are laid out for them daily.

At KS1, KS2 and KS3 teachers plan weekly using Solar objectives as a medium term guide to what needs to be taught. All pupils are taught using the CPA (concrete, pictorial, abstract) approach. Pupils progress through the levels as their progress is marked off on Solar. At KS4 pupils move towards external qualifications; GCSE, Entry level or Asdan.

Breadth of Study

Through careful planning and preparation we aim to ensure that throughout the school children are given opportunities for:

- individual, group and whole class discussions and activities
- work on both purely mathematical activities and on tasks which use developing mathematical knowledge and skills to solve problems
- practical activities and mathematical games
- short activities and longer tasks designed to be completed over a period of time to give an understanding of the different aspects of mathematics
- a range of methods of calculating e.g. practical, mental, pencil and paper and using a calculator
- working with computers as a mathematical tool
- open and closed tasks
- developing a positive view of mathematics through enthusiastic teaching

THE NATIONAL CURRICULUM AND THE PINES SCHOOL SCHEME OF WORK

The Pines School scheme of work is a working document and as such is composed of ongoing weekly plans. These are developed using Solar objectives as taken from the National Curriculum for pupils working at NC level. For the vast number of pupils working at a pre National Curriculum level the objectives are on Solar using Pines National Curriculum which has been created to meet the needs of these children.

CROSS-CURRICULAR ISSUES

Throughout the whole curriculum opportunities exist to extend and promote mathematics. Teachers seek to take advantage of all opportunities. Mathematical concepts and language are shown within planning where appropriate.

PLANNING AND ORGANISATION

There is a consistent approach to long, medium and short term planning for mathematics across Key Stages 1 and 2.

Lessons are planned by class teachers in consultation with classroom colleagues, with guidance as necessary from the subject leader.

Children are taught in groups within their classes, but provision may be made as necessary for children to experience working in other classes or other schools in order to facilitate maximum progress.

Teachers organise working areas in order to ensure that pupils:

- are actively involved in mathematical tasks
- progress at a suitable pace for them
- have limited distractions
- have clear language used within the lessons and have a clear focus on direct, instructional teaching
- have the necessary adult time and support
- can see mathematical labels and displays in the classroom and around school that match the breadth of ability within the class
- are challenged to do their best

Mathematics is taught discretely on a daily basis within lessons of between 45 – 60 minutes. Where KS2 pupils go swimming once a week this is addressed by cross-curricular maths.

PUPILS' RECORDS OF THEIR WORK

In the Early Years, at Key Stage One, and for some children throughout the school, there is an emphasis on oral and practical work and therefore less written recording. However, when more formal recording takes place;

Work is dated in numerical format.

Modes of recording may include pictorial, graphic, taped oral response, photographed, written or printed from the computer.

Children are taught a variety of methods for recording their work and they are encouraged and helped to use those they find most relevant and understandable.

Encouraging children to make decisions on how to record their work is an important part of the use and application of mathematics.

MARKING, ASSESSMENT AND RECORD KEEPING

Marking is based on The Pines School Marking and Response Policy.

Marking should be both diagnostic and summative and feedback to the child is immediate. Staff ensure that any misconceptions are corrected to enable children to develop accurate mathematical concepts.

Targets are set in each age range according to the needs of the children and these are updated as necessary. Pupils are set ongoing targets, which are monitored and updated as necessary. Where a child's communication levels allow they are made aware of their targets and encouraged to assess their own progress against these.

Teachers make regular assessment of each child's progress and record these achievements systematically using Solar.

Moderation of PNC and NC Levels is agreed throughout the school and externally with members of other special schools with the Birmingham co-operative consortium.

Stickers, Certificates or other forms of recognition and reward may be given as appropriate.

Good work may be shown to a chosen adult for praise.

At times when children show sudden understanding of a concept (Lightbulb moments) they may be awarded a Merit Certificate and a visit to the headteacher. Sustained work over a term may also be recognised with a Merit certificate.

PARENTAL INVOLVEMENT AND 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 against maths targets on Parents' Evenings.

Teachers report in terms of what a child knows, understands and can do.

Teachers use the information gathered from Target Setting and assessments to inform parents on their children's progress.

Parents may also take the opportunity to discuss their child's progress through Home School books, on Dojo, by telephone or in person.

Regular opportunities are given to parents to attend an Inspire Workshop with their child based on mathematical concepts and methods.

MONITORING AND EVALUATION

The mathematics subject leader is released as necessary from classroom duties in order to monitor and evaluate the quality and standards of mathematics throughout the school and this enables her to support teachers in their own classrooms.

Opportunities for teachers to review the scheme, policy and published materials are given on a regular basis during timetabled INSED meetings.

STAFFING AND RESOURCES

Each class benefits from at least one teacher and 2 Teaching Assistants.

A Subject Development Plan is made and reviewed yearly by the coordinator. This takes into account the achievements and needs of all the children and links to the SDP.

The Subject Development Plan is linked to the school budget with an allocation for replenishing and developing resources.

Practical Resources and Books

The Pines School uses White Rose Maths and the scheme of work and lesson ideas can be found online.

Regularly used maths resources are held in each classroom.

Resources that are not used or required as regularly are stored at central locations throughout the school.

Information and Communication Technology

ICT is used in various ways to support teaching and motivate children's learning.

HOMEWORK

It is our school policy to provide parents and carers with opportunities to work with their children at home. Appropriate activities are matched to individual pupils needs and are valuable in promoting children's learning in mathematics.

Activities are sent home on a regular basis (see the School Homework Policy) and take the form of number games and tasks with some formal exercises for older children.

INCLUSION AND EQUAL OPPORTUNITIES

The Pines School is committed to equalising opportunities for all pupils to succeed, irrespective of gender, ability, culture, ethnicity, religion or non-religion, socio-economic background, or circumstances of home or in the public care.

This applies to our teaching attitudes and the published materials we use with our pupils.

CONCLUSION

This policy sets out our intentions, with regard to the teaching of Mathematics at The Pines School.

The Mathematics Curriculum will be kept under review by the staff and the Governing body. Opportunities for discussion of any concerns will be available, in the first instance with the post-holder.