

# Alfreton Park School



Happiness and Wellbeing at Our Roots

## Mathematics

Date	Review Date	Headteacher's Signature
September 2023	September 2026	J O'Donnell

Chair of Governors: John Glasby  
Headteacher: Josie O'Donnell  
Deputy Headteacher: Emma Durham

## **Rationale**

At Alfreton Park School we are passionate that our pupils should have equal opportunity to develop their skills, knowledge and understanding of mathematics. We aim to provide a high-quality education as well providing opportunities to learn in a fun, safe, sequential and progressive learning environment.

We see Maths as being essential to everyday life, it can provide a tool for pupils to use in order to equip themselves with basic concepts, to analyse and communicate information, as well as tackling real life problems and practical tasks leading to problem solving. Maths also allows for a creative mind and thinker, leading to a better understanding of world around us.

## **Aims (Intent)**

At Alfreton Park School, we aim to provide pupils with powerful ways of exploring, investigating and understanding the world. Mathematics develops reasoning abilities, promotes logical thought and problem-solving techniques and stimulates interest. Pupils will experience the practical application of mathematical skills, which will promote independent thinking. Pupils will be given opportunities to practise their skills in many and varied settings including work in the community. The individual needs of each pupil will be carefully evaluated to provide a programme that will enable each individual to use mathematical information effectively. The curriculum at Alfreton Park will be relevant, manageable and may relate to EHCP'S through carefully planned ILP targets.

We also aim;

- To gain knowledge and understanding of the subject
- To develop basic concepts
- To develop an understanding of number, symbols and patterns
- To have an understanding of space and measurements
- To develop an understanding of money
- To learn to manipulate apparatus with increasing dexterity
- To understand the concept of time
- To gather information and use it appropriately
- To represent and interpret data
- To consider shape
- To consider application to real life problems and situations
- To develop a good understanding of Mathematical language

## **Curriculum, Organisation & Teaching (Implementation)**

Alfreton Park School has its own curriculum based on the pupil-centred learning model. There are four key areas which include Cognition and Learning, Physical and Sensory, Communication and Interaction, as well as Social Emotional and Mental Health. The curriculum at Alfreton Park follows different pathways which are most suited to our individual learner styles.

We ensure that all areas of the maths curriculum are covered, this includes;

### Number

- Number and place value
- Addition and subtraction

- Multiplication and division
- Fractions (including decimals and percentages)
- Ratio and proportion

### Geometry

- Properties of shapes
- Position and direction

### Measurement

- Length
- Mass
- Capacity/volume
- Time
- Money

### Statistics

- Collecting, presenting and analysing data
- Present data using bar charts, pictograms and tables

For pupils following an preformal pathway these will be interpreted and presented in a format that is appropriate to meet individual need.

## **Mathematics within the Whole Curriculum**

Maths equips pupils with a powerful mechanism to understand and change the world. This includes logical thinking, problem solving skills and the ability, for some, to think in an abstract way. Mathematics is important in everyday life and allows us access to technology, science and the arts as well as other curriculum areas.

Pupils will use computing to support their learning in Maths. Teachers will plan activities that give opportunities to practise their computing skills in the context of Maths. A broad range of computing activities will be offered, including use of the interactive whiteboard, laptops, iPad, a range of software, talking books, the internet, and photographs, both on-screen and in hard-copy, writing applications and the use of computer-generated symbols. All students will broaden their experience of the world through the use of computing. Some students will use computing to develop their understanding of cause and effect in the context of Maths.

## **Mathematics and Learning**

Pupils will work in a variety of practical, active and meaningful ways. Careful planning will ensure pupils will receive balanced and appropriate experiences that build on and develop their skills. Pupils should:

- Build on their awareness of events and actions to recognise changes in quantity, pattern and space in their immediate environment and the wider world
- Develop awareness to predict and anticipate change
- Develop problem solving skills that will allow them to contribute towards making choices, taking decisions and gaining some control over their immediate environment
- Extend skills, experiences and understanding to allow them to visualise, compare and estimate
- Begin to think about strategies they use and explain them to others

## **Mathematics and Teaching**

At Alfreton Park School, Mathematics is taught by teachers in ways appropriate to pupil needs. It is a vital component to learning across the curriculum and vital to all areas of the national curriculum in school. It forms the basis for social understanding and relates directly to life in and out of school.

Lessons have clear intent and are implemented by carefully considering the following points.

- Be structured, interesting and purposeful, enabling pupils to work at their own level as well as providing a sense of challenge
- Allow pupils to practise new skills in as many varied situations in order to develop true mastery
- Develop interaction
- Use computers where and when appropriate to aid learning and practice skills
- Use existing skills, knowledge and understanding
- Provide opportunities for functional use
- Recognise achievement
- Be practical to capture interest and develop concentration
- Maintain enthusiasm, providing confidence to evaluate and improve
- Be linked to other subject areas enabling a cross curricular learning approach
- Use appropriate and consistent methods to record progress, make assessments and inform planning
- The impact of sessions is recorded using various assessment systems across school

## **Planning**

Classes will follow their Long-Term Plans which state the scheme of work they are required to use to form the basis of planning. This may include lessons supported by Equals and White Rose Schemes of work.

Equals and White Rose are schemes of work which provides scaffolding for developing maths skills and robust practices to ensure a well-rounded Maths Curriculum.

Class teachers are responsible for maths within their class. Pupils work according to their ability and towards their own targets. Targets based on Individual Learning Plans are clearly defined to allow the reinforcement of skills, show progression and to promote the development of new skills.

## **Organisation**

Mathematics is organised within curriculum pathways and individual classes, it may be taught within small groups organised by the teacher, through incidental learning as well as free flow activities.

The programmes of study detailed in the National Curriculum have been adopted and will be adapted to meet the needs of our pupils in EYFS and Key Stages 1, 2, and 3. Post-14 pupils work to develop functional skills to prepare them for life after school. Some maths will be delivered through working towards ASDAN modules.

Pupils' needs are met both individually and within group work as activities are differentiated. Work is set to reinforce and promote new skills across all subjects to generalise learning and consolidate both skills and knowledge.

## **Co-ordination**

The Phase Leader for Cognition and Learning and the Mathematics Subject Leader carries out the following responsibilities:

- Provides ongoing support and guidance to colleagues in the area of Mathematics, providing training as appropriate
- Maintains a knowledge of current research and developments in the teaching of Mathematics to all our pupils
- Is the Mathematics budget holder
- Maintains and develops Mathematics resources
- Attends local and national workshops to develop the subject within the school
- Attends subject leader meetings with other special and / or mainstream school mathematics subject leaders.

## **Resources**

Money is allocated as an outcome of the annual budget cycle and in line with the school development plan. The mathematics subject leader is responsible for the allocation of finance to provide appropriate resources for the teaching of Mathematics across the school. Teachers make individual requests known to the co-ordinator who decides on the purchase of school resources after discussion with other members of staff. Basic materials for teaching mathematics are available in individual classes, as are computers and appropriate software programs.

## **Assessment, Recording and Reporting (Impact)**

On-going recording of individual pupil's work will take place via Earwig which is our school recording system.

Pupils' contributions and achievements are recognised and valued as part of the Alfreton Park School teaching approach. Each Teacher is responsible for setting and assessing SMART targets and record progress onto the BSquared Assessment system.

## **Evaluation and Review**

The mathematics curriculum will be reviewed as and when appropriate, in line with Long Term plans, any changes to the school development as well as in line with any national changes. Evaluation of teaching and learning is also a part of the on-going review of department and whole school practice. An evaluation of each pupil's work in Mathematics is completed at the end of each term. The mathematics policy will be reviewed every three years by staff and governors.

## **Staff Development**

Staff will undertake in-service training as appropriate. Information on courses will be disseminated via the phase leader for cognition and learning.

## **Liaison with other schools**

The exchange of ideas and developments with staff from both mainstream and special schools is recognised as a valuable part of curriculum working. Collaborative work on all aspects of curriculum development is undertaken as and when appropriate.

## **Other relevant information**

Teachers should refer to the following documents to provide relevant information when planning work for pupils

- Students' EHCP's
- Mathematics Scheme of Work including Equals
- White Rose Maths
- The National Curriculum
- Assessment, Recording, Reporting and Review Policy
- BSquared Assessment System
- Framework for Curriculum Subject Leaders
- Other subject curriculum policies and schemes of work as appropriate.

**Reviewed September 2023 by Katie Turner**