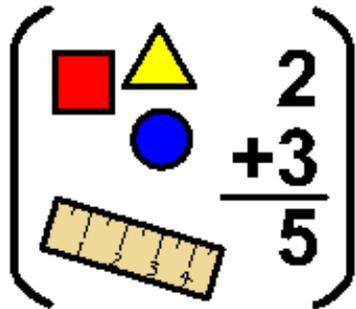
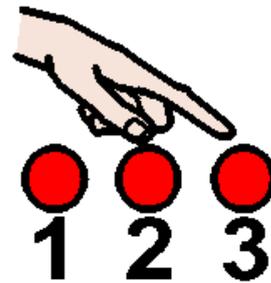


# Mathematics Policy



Community Special School



**November 2019**

To be reviewed September 2021

## **Aims**

At Alfreton Park Community Special 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 pupils 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 and manageable and relate to ILP's.

- To gain knowledge and understanding of the subject
- To develop basic concepts
- To develop an understanding of number, symbols, patterns
- To have an understanding of space and measures
- 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

## **The National Curriculum**

Alfreton Park Community Special School has its own curriculum based on the pupil-centered learning model. There are four key areas which include Cognition and learning, Physical and Sensory, Communication and Interaction. The curriculum at Alfreton Park is taught through Cornerstones Specifically Designed Curriculum through a new theme per term and with meaningful links.

## 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 with severe or profound and multiple learning difficulties, these will be interpreted and presented in a format that is appropriate to meet individual need.

### **Mathematics within the Whole Curriculum**

Mathematics forms a base for all other curriculum subjects and gives access to them.

It 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.

Students will use computing to support their learning in Maths. Teachers will plan activities that give students 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, Ipads, 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.

Teachers will plan for health and safety issues when using computing.

### **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.

Sessions 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
- 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 all other subject areas
- 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**

Cornerstones provides clear direction for mathematics learning. Other classes will use the Scheme of Work for Mathematics and the National Curriculum to form the basis of planning. 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 Key Stages and is taught within small groups organised by the teacher. 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, 3 and 4. Post-16 pupils work to develop functional skills to prepare them for life after school. 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.

### **Co-ordination**

The Phase Leader for Cognition and Learning is the Mathematics Subject Leader and 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 pupils with severe learning difficulties
- 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 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 requirements known to the co-ordinator who decides on the purchase of across-school resources after discussion with other members of staff. Departments may choose to purchase additional equipment from other bids. Whole school mathematical materials and equipment are available from the side room in Larch Class. Basic materials for teaching mathematics are available in individual classes, as are computers and appropriate software programs.

## **Scheme of Work**

The Alfreton Park Mathematics Scheme of Work links to the National Curriculum learning objectives and is supported by the BSquared Small Steps Assessment system. Together they meet the needs of pupils across the age and ability range within the school. The wider needs of pupils in terms of independence, quality of life, range of experience and enrichment are taken into account when developing the curriculum.

## **Assessment, Recording and Reporting**

On-going recording of individual pupil's work will take place to agreed Key Stage outlines. Pupils' contributions and achievements are recognised and valued as part of the Alfreton Park School teaching approach. A written assessment of work covered and skills developed in Mathematics is a part of the Annual Report for each pupil. Each Teacher is responsible for setting and assessing SMART targets and record progress onto BSquared Assessment system. Students work will also be recorded through written work, observations, photographs.

## **Evaluation and Review**

The Mathematics curriculum will be reviewed as part of the cycle identified in the School Development Plan. 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 co-ordinator will monitor and evaluate Mathematics according to the cycle identified in the Framework for Curriculum Subject Leaders. The Mathematics policy will be reviewed every three years by staff and governors.

### **Equal Opportunities**

Pupils will have access to a relevant curriculum that meets their individual needs and provides a breadth of experience and balance of subjects to achieve individual aims. Materials will reflect the multicultural society in which we live and will be checked for race, disability or gender stereotyping.

### **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' ILP's
- Mathematics Scheme of Work
- Cornerstones Curriculum
- 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.
- White Rose Maths- See printed out work