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## 1. Our Vision

*At Foxfields our curriculum intent is as follows –*

*'A tailored curriculum designed to prepare our pupils to be confident and successful individuals who make outstanding progress and are prepared for life after school.'*

At Foxfields Academy, we believe that children should be exposed to mathematics through oral, visual, pictorial, and concrete strategies. Mathematics should always be meaningful and purposeful and be as close to 'real life' experiences as possible. The aim is that children use mental methods when appropriate, but for calculations that they cannot do in their heads they use an efficient written method accurately and with confidence.

Our calculation Policy has been adapted from White Rose Maths. This document identifies the progress in calculation strategies for all children, moving from concrete, pictorial and abstract. Formal methods to 1000 will be taught as the highest progression. This will work alongside and up to the Step 6 curriculum. Children will progress into the next stage when they are ready and when they are confident in their fluency and reasoning. This policy contains the methods that will be taught within our school alongside practical resources. It has been written to ensure consistency and progression throughout the school.

Our calculation curriculum promotes Foxfields ethos and is underpinned by our purpose 'To put learners first and prepare them for their future' it is also fundamental for our strategic vision which is that 'At Foxfields there will be no limit to the possibilities for our pupils. We want to build a first-class education provision that provides highly tailored learning to ensure that our pupils are best prepared for life after school'.

At Foxfields we believe that calculation is vital in order to foster confidence and achievement in a skill that is essential in our society and in everyday life. We are committed to ensuring that all pupils achieve mastery in key concepts of mathematics, appropriate and specific to them. They will make genuine progress and avoid gaps that may provide barriers to learning as they move through education. Assessment for Learning, and emphasis on investigation, problem solving, real life examples, jobs and the development of mathematical thinking are essential components of the approach to mathematics at Foxfields. A rigorous and detailed evaluation of planning, teaching and assessment is important to provide continued improvement and development of calculation at Foxfields.

## **2. Aims and Objectives**

The objectives of Maths are 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.
- Show understanding of the size of numbers and where they fit in the number system.
- To understand place value and to use this within different mathematical processes.
- Know number facts such as number bonds, multiplication tables, methods for four processes.
- Use skills of the number system and the four processes to complete calculations mentally.
- Calculate and check accurately/efficiently, both mentally and in writing.
- Can draw on a range of calculation strategies.
- Recognise when it is appropriate to use a calculator or other mathematical equipment and to be able to do so effectively.
- Make sense of number problems, including non-routine and real-life problems, and identify the operations needed to solve them.
- Explain methods used and the reasoning behind it, using appropriate mathematical terms.
- Suggest suitable units for measuring and make estimates of measurements.
- Explain and make predictions from data
- Be able to construct and read charts, diagrams, graphs and tables.
- Develop spatial awareness and an understanding of the properties of 2D and 3D shapes.
- Be able to know volume, area and perimeter of different 2D and 3D shapes.
- Understand numbers smaller than one and use fractions/decimals.
- To develop and understanding of ratio and proportion, including percentages and scales.
- To understand angles, external and internal, and understand key geometrical terms within different shapes.
- Fill in missing numbers and sequences, checking these using appropriate methods.

## **3. How Maths is organised and covered**

Maths is provided through:

- Discreet Curriculum time including paired work, group work and whole class teaching.
- Assemblies, class discussions and tutor time.

- As and when issues arise ensuring time is made within the curriculum to meet the needs of the pupils through identification via assessment processes.

Pupils engage in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem solving
- Mathematical discussion
- Consolidation of basic skills and number facts
- Mathematics games

#### **4. Resource Allocation**

Resources are selected to teach Maths that are:

- Age appropriate
- Non-discriminatory
- In accord with the values of Foxfields

Accurate Mathematical vocabulary is used in our teaching and children are expected to use this in their verbal and written examples.

Mathematics contributes to many other subjects and is it important that pupils are given opportunities for cross curricular development. It is important that mathematics is highlighted and planned into other curriculums such as Science and ICT. Other examples may include properties of shape in Art and Design Technology or the collection and presentation of data in History and Geography.

We endeavour to set work that is challenging and personalized. Each class will use differentiated and specific worksheets and resources. Additional enrichment opportunities will be encouraged such as cooking, music or design. Each pupil will have a specific 40 minutes per week, every alternate half-term for Step 1-6 and 40 minutes for Step 7 and above in the 2023/24 academic year. This may be revised in the 2024/25 academic year.

#### **5. Teaching and Learning**

Our Maths education provision is mapped and planned effectively. Teachers use a range of teaching techniques and strategies in a Maths lesson. These will be chosen at the discretion of the class teacher. Foxfields marking keys are used to specify the teaching input, technique, and strategy each child has received for each lesson.

Sometimes the focus of each lesson will be different depending on whether it be new learning, applying or mastering a topic. These may be different for individual pupils depending on their learning needs. Teacher's planning will be highly differentiated to meet the needs of all pupils. Teachers integrate the use of formative assessment by way of effective questioning, clear learning

objectives and the use of success criteria. Effective feedback techniques are used. Maths uses the marking policy implemented throughout Foxfields. Our marking policy promotes Foxfields ethos and is underpinned by our purpose 'To put learners first and prepare them for their future' it is also fundamental for our strategic vision which is that 'At Foxfields there will be no limit to the possibilities for our pupils. We want to build a first-class education provision that provides highly tailored learning to ensure that our pupils are best prepared for life after school.

## **6. ACES (Assessment, Completion, Extension)**

Children will have the opportunity to evaluate their work and respond to marking. They are expected to respond to marking as part of a "marking dialogue" with the teacher. ACE's lessons take place every week as part of every class timetable. These are set times to respond to marking from the teacher during that week. Teachers use ACE's lessons to assess work, complete any missing work or offer an extension of learning to stretch progress.

Any work completed by the pupils in ACE's lessons are written in PURPLE pen (some pupils will respond in pencil; this will be at the teachers' discretion). Subject leaders have time to observe classes complete work in their subject and offer specialist assistance to the staff and pupils.

## **7. Assessment**

Foxfields uses a bespoke assessment system which has been designed around the National Curriculum. This is used to inform planning and facilitate differentiation in lessons. The assessment removes the use of levels by including 'Developing' or 'Mastered' grading descriptors. This teaching inform teachers understanding of a child's ability in Maths. The school's Assessment and Marking Policies inform high quality feedback and pupils' response to it in Maths.

## **8. Safeguarding**

Should any topic be raised by a pupil that is not part of the lesson the member of teaching staff will discuss with the pupil outside of the lesson time. If there are any concerns for the pupils safety then the safeguarding team will be informed immediately and other organisations contacted where necessary.

## **9. Monitoring and Review**

Maths is the responsibility of all staff at Foxfields however the Maths subject leader will also:

- Support colleagues in their teaching, by keeping informed about current developments in the subject and providing resources where appropriate.
- Contribute to staff meetings and training sessions to facilitate the teaching of Maths.
- Contribute to quality assurance processes involving the subject such as moderation and lesson drop-ins.

## **10. Policy Review**

Foxfields Academy **Maths Policy**

Published: February 2024

Review Date: June 2025

Foxfields considers the Maths Policy document to be important and the policy will be reviewed by the Maths subject leader every year.