



## Maths Policy (2021)

Date of issue	Next review	Version	Signed: Chair of Governors	Signed: Headteacher
Sept 2021	Sept 2022			

### Single Equality Statement

The [Equality Information and Objectives](#) document, for Veritas MAT, provides a format for addressing the statutory duties of the Equality Act 2010 and The Children and Families Act 2014. This supersedes and brings together all previous statutory duties in relation to race, gender and disability and also addresses the duty to promote community cohesion, thus meeting the school's statutory duties in these areas.

### Governor Statement

The headteacher in each school is the leader of their school. Each member school has autonomy over its curriculum and provision and, while upholding the three core values of the trust, we expect each school to have an individual character relevant to the community it serves.

Each school has a Regional Governing Body. Warden House and Pilgrims' Way Primary Schools share a Regional Governing Body while Mundella Primary has its own Regional Governing Body. The Regional Governing Body sits six times a year. Each Regional Governing Body reports up to the MAT Board and Trust Members who quality assure their work.

The Regional Governing Body is responsible for a hub of up to three academies. The Regional Governing Body reports up to the Trust Board who quality assure their work. Veritas MAT has two Regional Governing Bodies.

Key areas of responsibility for the Regional Governing Body are:

#### **Standards, Finance and Audit, Human Resources, Infrastructure and Procurement**

The Executive Board consists of the CEO and Company Secretary / Trust Business Manager who run a team that support core operational tasks across the trust. Roles include finance, standards, research, training, school-to-school support and mentor-coaching. The CEO and a designated Trust Board Trustee also sit on the Regional Governing Body.

The Board of Trustees set the strategic direction, vision and ethos of Veritas Multi Academy Trust and are accountable to the Secretary of State for Education for standards across trust schools.



## Intent

*Our aims have been taken directly from the National Curriculum:*

We aim to ensure that all pupils:

1. become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
2. **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
3. 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.

## Implementation

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. Children work in mixed ability pairs or groups and we do not impose a 'ceiling' on pupils' expected levels of achievement. The children usually begin their learning through fluency-based questions. Once they have demonstrated a secure knowledge of this, pupils are then advised to apply this knowledge by completing questions requiring reasoning. The questions that children answer are carefully selected because they build on the previous ones. Those who are not sufficiently fluent with earlier material should consolidate their understanding before moving on. Pre-teach and closing the gap intervention groups take place daily during guided learning sessions. Pupils who grasp concepts rapidly should be challenged by being offered rich and sophisticated problems before any acceleration through new content.

## Planning

Teachers plan using the White Rose Maths materials as a starting point. These set out a clear Long Term Plan for each year group as well as Medium Term Plans and the small steps involved in teaching each topic. Pupils spend a substantial period of time learning about one area of mathematics; this allows children to gain a thorough and in-depth understanding of the content. The short-term plans contain the specific learning objectives and expected outcomes for each lesson, and give details of how the lessons are to be taught. The class teacher keeps these individual plans as well as uploading them onto the school server.

Teachers in EYFS plan teaching and learning opportunities so that by the end of the Reception year, children meet the objectives set out in the Early Years Outcomes document (September 2013). Teachers in EYFS also use the White Rose planning as a guide.

When planning, teachers embed the **Concrete – Pictorial – Abstract (CPA)** approach. They develop children's ability to independently select and use appropriate concrete apparatus to support their conceptual understanding and build procedural fluency.

Once pupils have a secure understanding at this stage, they are then taught how to use pictorial representations. These images should also be used in the questions posed. Manipulatives and pictorial representations allow pupils to develop their reasoning and problem solving skills.

Finally, pupils are expected to work with questions presented more abstractly. Children should be encouraged to use pictorial representations and concrete apparatus to support consolidation or reasoning.

Children are taught to use different ways of representing problems. The idea of variation is central to mastery and emphasises the importance of presenting mathematical ideas to pupils in different ways, using a range of examples as well as deliberately choosing tasks to avoid 'mechanical repetition'.

Teachers and Teaching Assistants are aware of the mathematical vocabulary that they should use with pupils and that pupils are themselves, expected to know, understand and use.

### **Memorisation of number facts**

The National Curriculum places a great emphasis on mental recall. Teachers are expected to plan daily opportunities for children to practise and develop their fluency and recall skills. This is in addition to the main maths lessons that are planned using the White Rose Hub materials. These opportunities usually take place during guided learning slots.

### **Times tables**

Schools are required to administer an online multiplication tables check (MTC) to year 4 pupils. The purpose of the MTC is to determine whether pupils can recall their times tables fluently, which is essential for future success in mathematics. The MTC will be delivered as an online, onscreen digital assessment. Under standard administration, the check will take each pupil less than 5 minutes to complete. It will be automatically scored, and results will be available to schools once the assessment window closes.

### **Links with other curriculum areas**

Our school runs a flexible, creative theme-based curriculum, and although much of the mathematics is taught during a daily maths lesson, we constantly seek to make meaningful cross-curricular links through our themes in order to embed maths into the bigger picture of each child's learning, and to provide real life relevance to the concepts and skills that they are acquiring. This is a two-way process, so sometimes the maths objectives may be taught as part of another topic, and other times the other curricular objectives may be taught as part of the maths. Opportunities to do this may be identified at either the long-term, medium-term or short-term planning stage.

Maths is also incorporated in our outdoor learning lessons in a practical and memorable way. These lessons either consolidate previous learning, introduce new concepts or enable children to apply their understanding to real life problems.

### **Presentation of Maths Work**

Each lesson must include the short date (e.g. 3.11.14) on the left-hand side of the page with the Learning Objective (L.O.) written on the next line directly underneath. Both must be underlined with a ruler. Children are encouraged to present their written calculations in pencil as neatly as possible by putting one digit in a square. A ruler must be used for the drawing all lines. The emphasis of neatly produced work is important as poor presentation and careless setting out can lead to incorrect calculations.

### **Maths Learning Environment**

We aim to create a rich and stimulating maths environment that promotes learning and independence in each classroom. Maths working walls and the resource areas in the classroom will:

- Support the children with their maths.
- Contain information relevant to current teaching (key vocabulary, models/images, success criteria, targets).
- Include maths resources clearly labelled and accessible for the children to encourage independent learning and exploration
- Be clear/large enough for children to read.

### **Home/school links**

We aim to raise the profile and understanding of our approach to Maths with parents, and they are encouraged to be actively involved in supporting children's learning in school. There are links to maths websites, videos of maths lessons and other useful documents and resources on the school website or YouTube channel. Home learning will be sent home as appropriate in order to reinforce concepts and skills being learned in school.

### **Calculation guidance**

Teachers use the school's Calculation Guidance document to inform their teaching of calculations and to ensure a progress across the Key Stages.

### **Impact**

Each individual's full potential in mathematics will be developed through investigational, practical activity, exploration and discussion leading to independent, confident and logical thinkers with the flexibility of mind to solve problems through decision making and reasoning. Our children will be confident and competent with numbers and the number system. They will use accurate mathematical language as a means of communicating ideas and concepts. Furthermore, they will be able to apply their skills beyond the classroom and in an ever changing world.

The % of pupils working at Age Related Expectation (ARE) within each year group will be at least in line with national averages and the % of pupils working at Greater Depth within each year group will be at least in line with national averages. There will be no significant gaps in the progress of different groups of pupils (e.g. disadvantaged vs non-disadvantaged).

## **Assessment**

Teachers and TAs use assessment for learning techniques and give verbal feedback throughout the lesson to extend, support or challenge the learners thinking. When this verbal feedback is used effectively it accelerates the progress that individual learners make during the lesson as well as helps to inform subsequent lesson planning and interventions.

The White Rose Maths Hub 'End of Block' and 'End of Term' assessment questions are used to check understanding of a topic or term and help inform later planning. Twice a year, children sit 'Testbase' papers and the scores are recorded to track progress across the curriculum in maths. Years 2 and 6 also complete past SATs papers over the course of the year. At the end of Year 2 and Year 6, pupils complete the End of Key Stage One or Two National Curriculum tests.

### **Assessment for learning**

Assessment for learning is embedded into each lesson and teachers use assessment for learning techniques and strategies on a daily basis in order to identify pupils' strengths and difficulties, inform the next steps for each child's learning and improve the learning outcomes for each child. Short-term planning is constantly reviewed and modified on the basis of these assessments.

During 2015/16 we will be developing and moving towards a new system of assessing without levels in line with the new curriculum, as is the national requirement.

### **Tracking pupils' progress**

Assessment is tracked half termly using the school's 'Target Tracker' tracking system and pupils' progress is discussed in Pupil Progress Meetings. Children who haven't made progress will become a focus in teacher's planning.

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. We pass all assessment and tracking information on to the next teacher at the end of the year, so that s/he can plan for the new school year.

There will be new National Curriculum tests for Year 2 and Year 6 for the 2015/16 academic year.

We give parents the opportunity to discuss their child's progress and attainment each term in a teacher/parent meeting. We also provide a summary of each child's progress and achievement in the Annual Report for parents.

## **Subject Leadership**

### **The Head teacher will:**

- Provide support by encouraging staff and praising good practice
- Monitor learning and teaching through lesson observations
- Monitor planning and reviews
- Give feedback to teachers following lesson observations
- Support staff development through in service training and provision of resources

### **The Phase Leaders (under the guidance of DHT - Curriculum) will:**

- Provide a strategic lead and direction for Mathematics in the school
- Provide support and advice to staff in the delivery of the Mathematics programme of study
- Remain informed about current developments in the subject by attending INSET sessions and being involved in independent research and reading
- Disseminate relevant information to staff
- Deliver INSET sessions to staff, to support staff development
- Monitor and evaluate teaching and learning of Maths
- Monitor standards in the subject, through planning and work scrutiny, statistics, quality of teaching and pupil assessments
- Order and maintain resources to enhance effectiveness of Maths teaching within the school
- Consider with staff and work with SMT members in the evaluation and planning of actions included within the School Development Plan.

### **The Class teacher will:**

- Be responsible for the teaching of Maths as set out in the policy.
- Provide planning and reviews for the Head Teacher and Maths leader to have access to.
- Provide samples of maths work to the Maths leader when required.
- Assess children's work in order to detail future planning.

## **Equal Opportunities**

Please refer to the school's Equal Opportunities Policy.