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| **Mathematics** |

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| **Date** | **Review Date** | **Subject Leader** | **Nominated Governor** |
| January  2023 | January  2024 | Ali Cooper | Jen Longman |

We believe this policy should be a working document that is fit for purpose, represents the school ethos, enables consistency and quality across the school and is related to the following legislation:

* Education Act 1996
* Education Act 1997
* Standards and Framework Act 1998
* Education (National Curriculum) (Temporary Exceptions for Individual Pupils) (England) Regulations 2000
* Education Act 2003
* Equality Act 2010

The following documentation is also related to this policy:

* Ofsted School Inspection Handbook (DfE 2022)
* Teaching a broad and balanced curriculum for education recovery (DfE)
* The Education Inspection Framework (Ofsted 2019)
* An investigation into how to assess the quality of education through curriculum intent, implementation and impact (Ofsted 2018)
* Designing and Timetabling the Primary Curriculum - a practical guide for Key Stage 1 and 2

(Qualifications and Curriculum Authority 2002)

* Equality Act 2010: Advice for Schools (DfE)
* The National Curriculum in England Framework Document (DfE) 2014
* Race Disparity Audit - Summary Findings from the Ethnicity Facts and Figures Website (Cabinet Office)

This policy outlines the teaching, organisation and management of mathematics taught and learnt, and what we are aiming to achieve in respect of our pupils’ mathematical education at Rivington Primary School. It is based on the expectations and aims of the 2014 Curriculum for mathematics and the revised Early Years Framework and the Early Years ‘Development Matters’ EYFS document (non-statutory). This ensures continuity and progression in the learning and teaching of mathematics.

We believe mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history’s most intriguing problems. It is essential to everyday life, critical to science, technology, engineering, and necessary for financial literacy and most forms of employment. With this in mind, we endeavour to ensure that children develop a healthy and enthusiastic attitude towards mathematics that will stay with them throughout their lives. A high-quality mathematics education provides a foundation for understanding the world, the ability to reason

mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. Where possible our mathematics curriculum will be linked to our school values: Respect, Protect, Give Thanks, Keep Peace.

We have a duty to ensure compliance with the revised National Curriculum and with the application of the new programmes of study and attainment targets. We understand that 'the National Curriculum provides pupils with an introduction to the core knowledge that they need to be educated citizens.'

At the beginning of this academic year (2022-2023), we began an exciting journey working alongside our local Maths Hub. The hub is funded by the DFE and part of NCETM (National Centre for Excellence in the Teaching of Mathematics). The aims of the NCETM are to "raise levels of achievement in maths, and to increase appreciation of the power and wonder of maths, across the school..." The Maths Hub Programme allows us to work collaboratively with other schools in the Teaching for Mastery and Mastering Number Programmes.

We as a school community have a commitment to promote equality. Therefore, an equality impact assessment has been undertaken and we believe this policy is in line with the Equality Act 2010. We all have a responsibility to ensure equality permeates into all aspects of school life and that everyone is treated equally irrespective of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation. We want everyone connected with this school to feel safe, secure, valued and of equal worth.

We believe it is essential that this policy clearly identifies and outlines the roles and responsibilities of all those involved in the procedures and arrangements that are connected with this policy.

**Aims**

Mathematics helps children to make sense of the world around them through the development of their ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.

The National Curriculum in England Framework Document (DfE) 2014 aims 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.

**At Rivington Primary School we aim to:**

* develop an enthusiasm for and fascination with mathematics
* build children’s self-confidence in their ability to deal with mathematics
* develop a positive attitude to mathematics as an interesting and attractive subject in which all children gain some success and pleasure
* develop mathematical understanding through systematic direct teaching of appropriate learning objectives
* encourage the effective use of mathematics as a tool in a wide range of activities within school and, subsequently, adult life
* develop an ability in the children to express themselves fluently, to talk about the subject with assurance, using correct mathematical language and vocabulary
* develop an appreciation of relationships within mathematics
* develop ability to think clearly and logically with independence of thought and flexibility of mind
* develop children’s ability to work systematically, co-operatively and with perseverance
* develop mathematical skills and knowledge and quick recall of basic facts
* promote the teaching of numeracy and literacy within all subjects
* evaluate the school curriculum by focusing on curriculum intent, implementation, and impact
* share good practice within the school
* ensure compliance with all relevant legislation connected to this policy
* work with other schools and the local authority to share good practice to improve this policy.

**Intent**

The intention of our mathematics curriculum at Rivington Primary is for children to be excited about maths! Developing a positive attitude to this subject is essential. Teachers promote enjoyment of maths and provide opportunities for children to build a conceptual understanding before applying their knowledge to everyday problems and challenges. We ensure that challenge is provided for all children, whatever their understanding. Children are encouraged to be brave and push the boundaries, deepening their understanding further.

At Rivington, we follow a mastery approach to the teaching and learning of mathematics. The underpinning idea in teaching for mastery is that ALL children CAN achieve. This supports our vision and aims for maths at Rivington Primary School. Essentially, our ethos is that all children can be successful in the study of mathematics. We do not accept that ‘some children cannot do maths’ or that children should be limited by prior attainment. Maths is for everyone!

We teach the skills to ensure our children are resilient learners who become life-long mathematicians. We aim to deliver an inspiring and engaging mathematics curriculum through high quality teaching.

To improve our mastery approach and improve the quality of our maths teaching, we have now adopted a scheme of work that is approved by the DfE called Power Maths. It is based upon the concrete, pictorial and abstract approach. Every lesson is divided into sections that involve plenty of discovery, sharing, collaboration, practice, and reflection. Children are encouraged to solve problems each day using concrete resources, pictorial representations and abstract thinking.

At the heart of this programme is the idea that all children can achieve and be successful mathematicians with the right growth mindset.  It promotes five child friendly characters, each with their own positive skillset, to inspire and motivate children. The Power Maths approach enables children to be numerate, creative, independent, inquisitive, enquiring, and confident. Children should not be afraid to make mistakes and should fully embrace the fact that mistakes are part of learning! A mastery curriculum promotes a deep, long-term, secure, and adaptable understanding of the subject, so that children become fluent in calculations; possess a growing confidence to reason mathematically and hone their problem-solving skills.

The only way to learn mathematics is by doing mathematics!

**Implementation**

At Rivington, we recognise that children need to be confident and fluent across each yearly objective. To ensure consistent coverage, teachers follow the Power Maths scheme of learning to support their planning. Power Maths is an exciting and inspiring class mastery approach, which has been recommended by the Department for Education. Teachers also develop their understanding of mastery whilst working within the Maths Hub and with regular in-house CPD.

The idea that all children can be successful mathematicians with the right mind-set is based firmly at the centre of our maths curriculum. Every Power Maths lesson is divided into sections that involve plenty of discovery, sharing, thinking together, practice and reflection. High quality textbooks and practice books, approved by the DfE, as part of the national approach to teaching for mastery are used in each year group and a digital version of the Power Maths textbooks allows these to be shared with the class during the main teaching. An interactive teaching tool for the purpose of modelling strategies is available to all teachers as part of the Power Maths scheme. Resources to support teachers’ own professional development and understanding of new approaches as part of a mastery approach are available on the Power Maths ‘Active Learn’ platform. As well as overviews of learning, these include short videos which demonstrate new methods to ensure accuracy.

Children begin with a short ‘Power Up’ activity which supports fluency in, and recall of, number facts. Following this, the main lesson begins with a ‘Discover’ and ‘Share’ task in which a contextual problem is shared for the children to discuss in partners. This helps promote discussion and ensures that mathematical ideas are introduced in a logical way to support conceptual understanding.

In KS1, these problems are almost always presented with objects (concrete manipulatives) for children to use. Children may also use manipulatives in KS2. Teachers use careful questions to draw out discussion and reasoning and the children learn from misconceptions through whole class reasoning.

Following this, the children are presented with varied similar problems which they might discuss with a partner or within a small group. At this point, scaffolding is carefully reduced to prepare children for independent practice. This is the ‘Think together’ part of the lesson and the children might record some of their working out in their Maths Journals. The teacher uses this part of the lesson to address any initial errors and confirm the different methods and strategies that can be used. The children are then shown a ‘challenge’ which promotes a greater depth of thinking.

The class then progress to the ‘Practice’ part of the lesson, which is designed to be completed independently. This practice uses conceptual and procedural variation to build fluency and develop greater understanding of underlying mathematical concepts. A challenge question and links to other areas of maths, encourages children to take their understanding to a greater level of depth. Children who complete this are provided with further ‘rich and sophisticated’ problems from the deepening tasks.

The final part of the sequence is a ‘reflect’ task. This is an opportunity for children to review, reason and reflect on learning and enables the teacher to gauge their depth of understanding.

High quality resources are used in conjunction with Power Maths, such as NRich and NCETM to support, stretch and challenge all children within the classroom. In addition to the Maths Policy, the Power Maths Calculation Policies are used to ensure a coherent approach to teaching the operations across our school.

**Journals** are used in most lessons throughout the discover, think, share part of the lesson. They are used when working with partners or individually, to develop communication skills and record thought processes, therefore deepening conceptual understanding. Once children have had the opportunity to refine their thinking, they record these using diagrams/drawings, writing and abstract mathematical notation. Teachers’ expectations of journals should be high, as should independence levels.

Our curriculum builds on the **concrete, pictorial, abstract** approach. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

Throughout Rivington, you will see these methods being used:

**Concrete** – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

**Pictorial** – children then build on this concrete approach by using these pictorial representations, which can then be used to reason and solve problems.

**Abstract** – with the foundations firmly laid by using the concrete and pictorial methods the children can move onto an abstract approach using numbers and key concepts with confidence.

By using all three, the children can explore and demonstrate their mathematical learning. Together, these elements help to cement knowledge so children truly understand what they have learnt. All children have access to a wide range of concrete mathematical resources to help them build on their concrete understanding of mathematical concepts. Teachers also use the online interactive tool, enabling them to model pictorial and abstract concepts which children can replicate and apply to their own learning.

In Key Stages 1 and 2, we have introduced afternoon sessions of ‘Maths Chat and Connect’. This is an opportunity for children in both Key Stages to really explore number, number facts and develop their number sense and automaticity. In Key Stage 1, we follow the ‘Mastering Number Programme’ from the NW Maths Hub. This consists of a short, daily maths teaching session, to further develop understanding of mathematical concepts using a range of resources.

**EYFS**

Children in Nursery have a short daily maths teaching session, during which time they begin to develop their understanding of simple mathematical concepts such as subitising, counting to 20, maintaining 1 to 1 correspondence, simple addition, and subtraction facts, to recognise and describe simple 2D and 3D shapes. Children are taught these concepts using physical resources, pictorial and concrete resources, songs, games and role-play.

In Reception, we also follow the ‘Mastering Number Programme’ from the NW Maths Hub. This consists of a daily maths teaching session, to further develop their understanding of mathematical concepts using a range of physical resources, pictorial and concrete resources, songs, games and role-play. To embed and consolidate their learning further, other resources may be used such as White Rose Maths.

In both Nursery and Reception, the independent activities in the maths area link to the focus for the week. For example, if the focus for the week is addition, then activities in the maths area will often link to this. In addition to these planned independent activities, children also have the opportunity to self-select maths resources to consolidate their learning during child-initiated activities. We recognise the importance of play-based learning and therefore encourage children to develop their understanding during their play. Such opportunities are provided in both the inside and outside environment.

Regular observations and assessments help to ensure that children that need additional intervention to consolidate their mathematical understanding are identified and supported by appropriate intervention.

**Impact**

The impactof a mastery session should be visible. A culture of excitement and enjoyment around maths promotes achievement, confidence and good behaviour and a place where children feel safe to try new things and make mistakes. This innovative practice across the school provides a strong foundation and opportunities for children to collaborate and develop social skills both indoors and out.

This curriculum design ensures that the needs of individual and small groups of children can be met within the environment of high quality first wave teaching, supported by targeted, proven interventions where appropriate. In this way, it can be seen to impact in a very positive way on children’s outcomes. The school has a supportive ethos, and our approach supports the children in developing their collaborative and independent skills, as well as their empathy and the need to recognise the achievement of others.

Children can underperform in mathematics because they think they can’t do it or are not naturally good at it. The Power Maths programme addresses these preconceptions by ensuring that all children experience challenge and success in mathematics by developing a growth mind set. Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of each child. These factors ensure that we can maintain high standards, aiming for achievement at the end of KS2 to be well above national average and for a high proportion of children to demonstrate greater depth at the end of each phase.

Children have opportunities to share their learning with each other, their parents and carers and other learners through school-based activities. Developing their independence and motivation as learners and their sense of responsibility as future citizens is at the heart of all our teaching and learning in maths**.**

**Roles and Responsibility for the Policy**

**Role of the Governing Body**

The Governing Body has:

* appointed a member of staff to be responsible for the curriculum leadership of mathematics;
* delegated powers and responsibilities to the headteacher to ensure all school personnel and stakeholders are aware of and comply with this policy;
* responsibility for ensuring compliance with the legal requirements of the national curriculum;
* responsibility for ensuring that the school complies with all equalities legislation;
* nominated a designated equalities governor to ensure that appropriate action will be taken to deal with all prejudice related incidents or incidents which are a breach of this policy;
* responsibility for ensuring funding is in place to support this policy;
* responsibility for ensuring this policy and all linked policies are maintained and updated regularly;
* responsibility for ensuring all policies are made available to parents;
* nominated a link governor to:
* visit the school regularly;
* work closely with the headteacher and the coordinator;
* ensure this policy and other linked policies are up to date;
* ensure that everyone connected with the school is aware of this policy;
* attend training related to this policy;
* report to the governing body every term;
* annually report to the governing body on the success and development of this policy.
* responsibility for the effective implementation, monitoring and evaluation of this policy.

**Role of the Headteacher**

The Headteacher will:

* work in conjunction with the senior leadership team to ensure all school personnel, pupils and parents are aware of and comply with this policy;
* ensure teachers:
* ‘have good knowledge of the subject(s) and courses they teach;
* have effective support for those teaching outside their main areas of expertise;
* present subject matter clearly, promoting appropriate discussion about the subject matter they are teaching;
* check learners’ understanding systematically, identify misconceptions accurately and provide clear, direct feedback and in doing so, they respond and adapt their teaching as necessary, without unnecessarily elaborate or differentiated approaches;
* design their teaching to help learners to remember, in the long term, the content they have been taught and to integrate new knowledge into larger concepts;
* use assessment well in order to help learners embed and use knowledge fluently or to check understanding and inform teaching;
* create an environment that allows the learner to focus on learning;
* develop a rigorous approach to the teaching of reading in order to develop learners’ confidence and enjoyment in reading;
* use reading materials at the early stages of learning to read that are closely matched to learners’ phonics knowledge’.

(Amended from the ‘Education Inspection Framework’ (Ofsted 2021)

* work closely with the curriculum leader, subject leaders and the link governor;
* ensure compliance with the legal requirements of the national curriculum;
* consider disapplying a pupil from all or part of the national curriculum for a period of time if this will benefit the child;
* encourage parents to take an active role in curriculum development;
* provide leadership and vision in respect of equality;
* provide guidance, support and training to all staff;
* monitor the effectiveness of this policy by:
* observing teaching and learning;
* planning scrutinies and work trawls;
* discussions with pupils and members of the school council.
* annually report to the governing body on the success and development of this policy.

**Role of the Curriculum Leader**

The curriculum leader will:

* provide strategic leadership and direction;
* provide a curriculum that provides pupils with the essential knowledge they need to be educated citizens in democratic Britain;
* coordinate a number of working parties in order to explore ways of improving the curriculum and the way in which we deliver it with a view of ensuring the highest standards of delivery and consistency in pupil’s learning and teaching experiences and opportunities throughout the school;
* provide an environment that is fun, stimulating and challenging to all pupils;
* promote an awareness of and respect for a diversity of cultures, values, beliefs and abilities;
* equip children with a range of skills and a desire for lifelong learning;
* ensure appropriate coverage of the curriculum;
* provide support and advice;
* monitor pupil progress;
* ensure sufficient and up to date resources are in place.

**Role of the Subject Leader**

The subject leader will:

* lead the development of this policy throughout the school;
* work closely with the headteacher, curriculum leader, the nominated governor and SENCO;
* promote the teaching of numeracy and literacy within all subjects;
* be accountable for standards in this subject area;
* monitor standards by:
* auditing the subject area;
* review of the scheme of work;
* monitoring teachers planning;
* lesson observations;
* scrutinising children's work;
* discussions with pupils.
* work in conjunction with the headteacher, senior leadership team, the curriculum leader, subject leaders, teaching and support personnel to provide statements on each of the following:

(Quotes taken from the Education Inspection Framework (Ofsted 2021))

* ensure continuity and progression throughout the school;
* devise a subject improvement plan;
* provide guidance and support to all staff;
* provide training for all staff on induction and when the need arises regarding;
* attend appropriate and relevant INSET;
* keep up to date with new developments;
* undertake an annual audit and stock take of resources;
* purchase new resources when required and in preparation for the new academic year;
* manage the subject budget effectively;
* undertake risk assessments when required;
* review and monitor;
* annually report to the governing body on the success and development of this policy.

**Role of Teachers**

Teachers will:

* comply with all aspects of this policy;
* work closely with the subject leader to develop this policy;
* devise medium and short term planning;
* develop mathematical fluency, numeracy and mathematical understanding in all subjects;
* develop pupils' spoken language, reading, writing and vocabulary in all subjects;
* plan and deliver good to outstanding lessons;
* plan differentiated lessons which are interactive, engaging, of a good pace and have a three-part structure;
* have high expectations for all children and will provide work that will extend them;
* assess, record and report on the development, progress and attainment of pupils;
* achieve high standards;
* celebrate the success of pupils in lessons;
* implement the school’s equalities policy and schemes;
* report and deal with all incidents of discrimination;
* attend appropriate training sessions on equality;
* report any concerns they have on any aspect of the school community.

**Role of Pupils**

Pupils will:

* be aware of and comply with this policy;
* be encouraged to work in partnership with the school by making decisions and exercising choice in relation to their educational programme;
* listen carefully to all instructions given by the teacher;
* ask for further help if they do not understand;
* participate fully in all lessons;
* participate in discussions concerning progress and attainment;
* treat others, their work and equipment with respect;
* support the school code of conduct and guidance necessary to ensure the smooth running of the school;
* liaise with the school council;
* take part in questionnaires and surveys.

**Role of Parents/Carers**

Parents/carers will:

* be aware of and comply with this policy;
* be encouraged to take an active role in the life of the school by attending:
* parents and open evenings;
* parent-teacher consultations;
* curriculum development workshops.
* be encouraged to work in school as volunteers;
* be encouraged to respond to curriculum information newsletter;
* be informed via termly newsletters of their child’s topics;
* asked to provide suggestions and ideas for improving this subject;
* be asked to take part periodic surveys conducted by the school on curriculum development;
* be invited to make presentations to pupils on aspects of this subject area;
* encourage effort and achievement;
* encourage completion of homework and return it to school;
* provide the right conditions for homework to take place;
* expect their child to hand in homework on time;
* join the school in celebrating success of their child's learning.

**Policy Procedure**

**Teaching and Learning Style**

We use a variety of teaching and learning styles in order to develop children's knowledge, skills and understanding.

**Curriculum Planning and Organisation**

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning, and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that most pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils’ understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

The programmes of study for mathematics are set out year-by-year for key stages 1 and 2 with the National Curriculum. 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.

**All schools are also required to set out their school curriculum for mathematics on a year-by-year basis and make this information available online.**

**Early Years**

Work undertaken within the Foundation Stage is guided by the requirements and recommendations set out in the revised Early Years Framework and the Early Years ‘Development Matters’ EYFS document. All children are given ample opportunity to develop their understanding of mathematics through varied activities that allow them to use, enjoy, explore, practise, and talk confidently about mathematics.

**Key Stage 1 – Years 1 and 2**

The principal focus of mathematics teaching in Key Stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources (for example, concrete objects and measuring tools).

At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

By the end of Year 2, pupils should know the number bonds to and within 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency.

Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage.

**Lower Key Stage 2 – Years 3 and 4**

The principal focus of mathematics teaching in lower Key Stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of Year 4, pupils should have memorised their multiplication tables up to and including the 12-multiplication table and show precision and fluency in their work. Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

**Upper Key Stage 2 – Years 5 and 6**

The principal focus of mathematics teaching in upper Key Stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of Year 6 pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals, and percentages. Pupils should read, spell, and pronounce mathematical vocabulary correctly

**Links with ICT**

The use of information and communication technology will promote, enhance, and support the teaching of this subject area. Teachers should use their judgement about when ICT tools should be used.

**Spoken Language**

The national curriculum for mathematics reflects the importance of spoken language in pupils’ development across the whole curriculum – cognitively, socially, and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument, or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

**Inclusion**

At Rivington Primary School, we aim to provide equality of opportunity for all children whatever their age, ability, gender, race, religion or background. We aim to create an environment that values each pupil and enables them to achieve their full potential. We provide a broad and balanced curriculum appropriately differentiated to respond to pupils’ diverse learning needs.

The opportunities and experiences we provide, enable our pupils to participate fully and give their best across all aspects of school life. We place great value on the quality of relationships within our school community and celebrate the achievements of all pupils.

We appreciate that children may have special educational needs throughout, or at any time during their school career. At Rivington, we aim to facilitate the full inclusion of pupils with special educational needs. A range of inclusion strategies are embedded in practice and teachers are aware of the special educational needs of the children in their class, as well as those who have English as an additional language.

Although the expectation is that the majority of children will move through the programmes of study at broadly the same pace, the 2014 National Curriculum states: ‘Decisions about when to progress should always be based on the security of children’s understanding and their readiness to progress to the next stage.’ If a child’s needs are best met by following an alternative plan, including coverage of the content from a previous year, this will be directed by the SENDCo, in collaboration with the class teacher and with the knowledge of SLT. Specific arrangements for the provision of children with SEND will be communicated to parents and carers during SEND reviews using Provision Mapping.

**Differentiation**

Differentiation is best defined as 'the process by which differences between learners are accommodated so that all students in a group have the best possible chance of learning.' (Geoff Petty)

The main purpose of differentiation is to challenge and raise standards of learning by ensuring that curriculum objectives are accessible to all our children, despite their backgrounds or abilities. We see differentiation as a form of integration and not exclusion.

Taking a mastery approach, differentiation occurs in the support and intervention provided to different children, not in the topics taught, particularly at earlier stages.

There is little differentiation in the content taught but the questioning and scaffolding individual children receive in class as they work through problems will differ, with higher attainers challenged through more demanding problems which deepen their knowledge of the same content before acceleration onto new content. Children’s difficulties and misconceptions are identified through immediate formative assessment and addressed with rapid intervention – commonly through individual or small group support later the same day.

**Assessment for Learning**

Assessment is regarded as an integral part of teaching and learning and is a continuous process. It is the responsibility of the class teacher to assess all pupils in their class.

**Formative assessment**

Short term assessment is a feature of each lesson. Observations and careful questioning enable teachers to adjust lessons and brief other adults in the class if necessary. The lesson structure of Power Maths is designed to support this process and the ‘Reflect’ task at the end of each lesson also allows for misconceptions to be addressed.

Children will receive effective feedback through teacher assessment and this is integral to the design of each lesson. The structure of the teaching sequence ensures that children know how to be successful in their independent work. Guided practice, which takes place within the ‘Think Together’ part of the lesson, provides further preparation for children to be able to apply the skills, knowledge and strategies taught during the ‘Discover and Share’ phase. Common misconceptions are addressed within the teaching sequence and key understanding within each ‘small step’ is reviewed and checked by the teacher and the children before progression to further depth. At times, this will involve allowing children time to struggle without teacher intervention (to develop resilience and allow for exploration), and at other times it may lead to immediate intervention in the lesson. Feedback ‘in the moment’ should help children to address misconceptions.

At the end of the lesson, the children review their work with the teacher and indicate how confident they feel about their learning. This informs where further consolidation may be required. If further consolidation is required, ‘keep up’ intervention will take place later that day. Opportunities for additional practice and correction are then provided by the teacher as appropriate.

**Marking**

The main purpose of our marking policy is to give children consistency in their learning – to ensure that as children progress through school they benefit from the feedback they are given through constructive guidance about how to improve. Feedback in lessons is mainly oral, though you may see teachers marking journals and practice books whilst the children are writing in them (live marking).

**Summative assessment**

At the end of each blocked unit of work, the children also complete the End of Unit Assessment’. The outcome of this is used by the teacher to ensure that any identified gaps in understanding can be addressed before the next unit is taught. Each child’s scores are also input into Insight.

This also informs dialogue with parents and carers during open evenings, as well as the judgements made at the end of the term as to the extent that each child has demonstrated mastery of each ‘fundamental’ objective.

Teachers administer a half termly Power Maths progress test which tests arithmetic, reasoning and problem-solving which specifically links to the coverage for that term. The results of these papers are used to identify children’s ongoing target areas, which are communicated to the children, as well as to parents and carers at Parents Evening. They are also used alongside the end of unit assessments and outcomes of work, to inform the whole school tracking of attainment and progress for each child.

Each week children complete an age-related arithmetic text to give them the opportunity to practise fluency skills recently consolidated. Scores should be uploaded to Insight.

Assessment data in maths is reviewed throughout the year to inform interventions and to also ensure that provision remains well-informed to enable optimum progress and achievement. End of year data is used to measure the extent to which attainment gaps for individuals and identified groups of learners are being closed. This data is used to inform whole school and subject development priorities for the next school year.

Half termly assessments of objectives taught will be updated on Insight for Maths. Steps that children are working at will be recorded at the end of each half term. Teachers will record children’s performance against the age-related objectives for the curriculum and decide whether children are working towards, at or above age related expectations. Assessments are used to inform planning and close gaps, in order to accelerate progress. Subject leaders will analyse termly data and address areas for curriculum development.

Children’s attainment, progress and barriers to learning will be discussed in half termly Pupil Progress Meetings with senior leaders and clear actions to work on will be planned together, to support pupils and staff in closing gaps.

Year 2 and Year 6 complete the national SATs for mathematics in the summer term.

**Reporting to Parents**

* Parents receive an annual report indicating pupils’ achievement at the end of the Summer Term.
* Parents are invited to discuss their child’s work with teachers each term with the formal consultation evening taking place during the Spring Term.
* At the end of the school year, parents of our Reception children receive their child’s Foundation Stage Progress and Parents of Year 2 and 6 pupils receive their child’s end of Key Stage results.

**Homework**

Home learning is set weekly, using Times Table Rockstars to strengthen multiplication and corresponding division facts recall.

It is our school policy to provide parents and carers with opportunities to work with their children at home. These activities may only be brief, but are valuable in promoting children’s learning in mathematics. Activities are sent home on a regular basis and take the form of number games and tasks with some formal exercises for older children. A homework activity is provided through each class page on the school website.

**Monitoring and Review of the Subject**

Monitoring of standards of children's work and the quality of teaching is the responsibility of the subject coordinator supported by the headteacher and the SLT.

Standards will be monitored by:

* looking at pupils work;
* subject observations;
* pupil discussions;
* audit of subjects;
* scrutiny of planning;
* general curriculum discussions.

**Contribution of the Subject to other Areas of the Curriculum**

Mathematics contributes to many subjects within the primary curriculum and opportunities will be sought to draw mathematical experience out of a wide range of activities. This will allow children to begin to use and apply mathematics in real contexts.

**Resources**

The school has a full range of resources to support the teaching of this subject throughout all year groups. Resources are upgraded and replenished when the need arises. An annual stock take and audit is undertaken by the subject coordinator in the summer term in preparation for the next academic year.

**Raising Awareness of this Policy**

We will raise awareness of this policy via:

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| --- | --- |
| * School handbook/prospectus; * School website; * Staff handbook; * Meetings with parents such as introductory, transition, parent-teacher consultations and periodic curriculum workshops; * School events; * Meetings with school personnel; * Written communications with home such as weekly newsletters and of end of half term newsletters; * Annual report to parents; | * Headteacher reports to the governing body; * Text messages; * Email; * Social media: |

**Training**

We:

* have in place appropriate training for this policy that is undertaken by a registered training provider that covers:
* All aspects of this policy.
* National curriculum programmes of study and attainment targets for all subjects.
* Curriculum.
* Teaching and learning.
* Planning.
* Differentiation.
* Assessment.
* Monitoring and evaluation.
* Special educational needs.
* Academically More Able, Gifted and Talented Pupils.
* Key skills.
* Equal opportunities.
* Inclusion.

As members of the Northwest Maths Hub, we can take advantage of the CPD they offer. Participation in the ‘Teaching for Mastery’ and ‘Mastering Number’ programmes includes a school specific CPD offer for the duration of each programme. We also receive a training offer from Activ Learn to support in the implementation of the Power Maths curriculum. The subject leader for mathematics attends ‘subject leader’ training each term and feeds back to staff following the training. Through performance management staff have the opportunity to identify areas of need and appropriate training is arranged. Staff meetings also provide regular updates, information, and training such as the use of visual representations and manipulatives and the importance of reasoning language.

**Equality Impact Assessment**

Under the Equality Act 2010 we have a duty not to discriminate against people on the basis of their age, disability, gender, gender identity, pregnancy or maternity, race, religion or belief and sexual orientation.

This policy has been equality impact assessed and we believe that it is in line with the Equality Act 2010 as it is fair, it does not prioritise or disadvantage any pupil and it helps to promote equality at this school.

**Race Disparity Audit**

We acknowledge the findings of the Race Disparity Audit that clearly shows how people of different ethnicities are treated across the public services of health, education, employment and the criminal justice system.

The educational section of the audit that covers: differences by region; attainment and economic disadvantage; exclusions and abuse; and destinations, has a significant importance for the strategic planning of this school.

**Monitoring the Implementation and Effectiveness of the Policy**

The practical application of this policy will be reviewed annually or when the need arises by the coordinator, the Headteacher and the nominated governor.

The effectiveness of the policy is demonstrated through subject leadership reports to governors which include impact statements on outcomes for pupils and the quality of teaching and learning.

We believe that this school policy:

* is an essential part of the school;
* supports staff in managing certain situations;
* forms an important framework that will ensure consistency in applying values and principles throughout the establishment;
* provides guidance, consistency, accountability, efficiency, and clarity on how the school operates;
* provides a roadmap for day-to-day operations;
* ensures compliance with laws and regulations, gives guidance for decision-making, and streamlining internal processes;
* is designed to influence and determine all major decisions, actions and all activities taking place within the boundaries set by them;
* stems from the school’s vision and objectives which are formed in strategic management meetings

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| **Headteacher:** |  | **Date:** |  |
| **Chair of Governing Body:** |  | **Date:** |  |

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| **Addendum** |