Yorke Mead Primary School

Mathematics Policy

September 2020

Our School Vision Statement

BRINGING LEARNING to LIFE

We are a school dedicated to creating an environment where children are able to grow into happy, well-rounded individuals with a love of learning through which they can achieve to the best of their abilities.

We want our pupils to enter the wider world as

- *Happy, positive individuals*
- *Responsible citizens who make a positive contribution*
- *Confident, resilient, healthy & life-long learners.*

D - Determination
A - Ambition
R - Resilience
E – Enjoyment

T - Trust
O - Openness

Rationale and Ethos

Mathematics is a creative and highly inter-connective discipline that is essential to everyday life. It involves the search for, and the study of, patterns & relationships.

Mathematics is crucial to a child's understanding of the way the world is ordered. It is a means of communicating information and ideas. It is also a creative activity, involving imagination, intuition & discovery. It is essential for all pupils whatever their ability.

Being a mathematician involves much more than learning facts, skills and methods to tackle calculations. It involves exploring and investigating mathematical systems and operating these systems in order to find out more about them. It involves applying knowledge, skills and understanding to solve problems about a variety of contexts.

The National Curriculum 2014 aims state that:

> *"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."*

At Yorke Mead we have decided to follow the Hertfordshire Sequences planning across the school. These plans give teachers skeleton plans that they adapt for their class's current needs. By following these sequences across the school we are ensuring that there is a progression of skills and approaches to support the children. By adopting a whole school approach to the learning and teaching of mathematics across our school we aim to:

- Provide consistency in the same high standards across the whole school and agreement on expectations.
- Enable children to learn mathematics as efficiently as possible.
- Enable staff to teach and facilitate learning in mathematics as efficiently as possible.
- Give children the mathematic skills they require to be life-long learners.
- Provide an inclusive environment for all children built on quality first teaching.
- Learn from each other, through the adoption of a collaborative enquiry-based approach to teaching and learning, where good practice is shared.

All our teaching is underpinned by the confidence that every learner can improve and that making mistakes and being stuck or 'in the pit' is a necessary and natural phase of new learning.

Aims of the Curriculum at Yorke Mead

The curriculum at Yorke Mead is intended to ensure each child:

- Develops high self-esteem, confidence and a true feeling of self-worth
- Develops a lively, enquiring mind and life skills so that he/she will have the ability to experiment, investigate, take risks, challenge, discriminate and make informed choices
- Is enriched, motivated and challenged by a broad and balanced curriculum and recognises the value of all areas of learning, including literature, sciences, the arts and humanities.
- Is valued for their individual contributions, recognises their role and develops a positive attitude towards everyone in the life of the school and community.
- Develops the positive skills and attitudes necessary to work both independently and collaboratively.
- Will be given equal opportunities to participate in all aspects of school life, with high expectations and ambition for every child and appropriate levels of challenge and support to enable them to achieve.

- Develops an understanding and respect for other races, cultures, gender, people with disabilities, religions and associated points of view.
- Understands the importance of and develops responsibility for keeping themselves physically and emotionally healthy
- Acquires a set of moral values and attitudes including honesty, respect, sincerity, trust and personal responsibility.
- Is supported in their spiritual, moral, social and cultural development
- Is equipped with the knowledge and cultural capital they need to succeed in life

Aims of the Mathematics Curriculum

Using the Hertfordshire Sequence Plans for the teaching of Mathematics at Yorke Mead we aim to:

- Ensure all children become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Involve all children in their learning and to give them a sense of achievement, positive attitude towards mathematics and an awareness of the fascination of mathematics.
- Provide a positive and supportive learning environment in which all children can enjoy their mathematics and feel able to rise to the challenge of developing competence and confidence in their mathematical knowledge, concepts and skills.
- Develop in children an ability to reason mathematically following lines of enquiry and to use their mathematical knowledge & skills to solve problems, to reason, to think logically, working systematically and accurately and to develop a mathematical argument or proof using mathematical language.
- Enable children to be able to communicate their mathematical understanding, explaining their reasoning to others both orally and on paper.
- Develop in children an ability to use & apply their mathematics across the curriculum and in real life.
- Develop an understanding of mathematics through the process of enquiry and experimentation.
- Develop mathematics by building from the concrete to pictorial and then to abstract across all years of the school.

NB: This policy should be read in conjunction with the School Calculation Policy and the school Teaching & Learning Policy

Curriculum Design

At Yorke Mead we have decided to follow and adapt the Hertfordshire Essentials Planning. These plans are written to support the curriculum for primary teachers. The sequences are written as a spiral curriculum in which learning is built upon step by step, sequence by sequence and year on year. It is aspirational and ensures progression and coverage through the primary phase. Long term plans provide an overview of the learning for each term. The times indicated are for guidance only and cover fewer weeks than there are likely to be in a term. This allows for flexibility within the materials. As the sequences are built as a spiral progression teachers should not deviate from the teaching order in the long term plan. Sequences of learning including identification of NC statements covered and key concepts. Stepped learning opportunities demonstrate the order of learning. Handouts which can include speaking frames, practice examples, games and problems solving opportunities (Reference: Herts for learning). Teachers at Yorke Mead will adapt the plans for use in their class ensuring to track back where required and to add challenge for the children who are higher attainers. The Essentials is to be used as a skeleton to the lesson and the class teachers are required to adapt and prepare further activities, questions etc to aid learning.

Mathematical Fluency

The National Curriculum aims to ensure that all pupils become fluent in the fundamentals of mathematics so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

Rote memorization of basic facts is not fluency. Mental fluency involves the ready use of adaptive strategies across a variety of contexts. Pupils without adaptive fluency at their fingertips spend longer determining routine answers and less time on meaningful application slowing their overall progress in mathematics.

Being mathematically fluent goes beyond simply knowing number facts or definitions; to be truly mathematically fluent involves choosing methods and procedures and working flexibly.

Key Stages of Mathematical Fluency Development

If children are to develop mathematical fluency it is important, they develop a strong number sense. We believe that it is important that in the early development of their mathematics children focus on developing this number sense. In Early Years and Key Stage 1 our focus is on children working with numbers in order to achieve this working with three main foci:

- **Subitising of Numbers**

  This involves the ability to instantly recognise the number of objects in a small group without the need to count them (e.g. dot patterns on a dice, patterns on dominoes etc.). It is important for children in key stage 1 to learn that numbers are made up of other numbers as this develops the understanding of number relations and makes it possible for children to think about numbers with flexibility.

- **Number Magnitude**

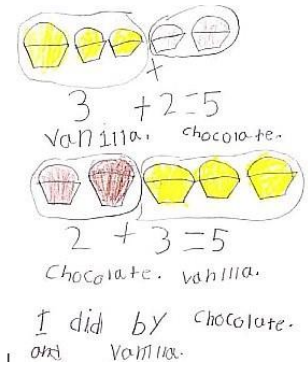
  This involves understanding about a numbers place within our number systems. To have developed number magnitude a child will be able to consider numbers and the size of these numbers in relation to each other. They will be able to use all they know about numbers to begin to visualize numbers and their positions on number lines/ scales even when the numbers are not there.

- **Development of Calculation Strategies and Recall of Core Facts**

  In KS1 this means it is important for children to practice and over practice the core facts – number bonds, counting up & back in different amounts, halves and doubles

Developing an understanding of Mathematics – from concrete to abstract.

Liebeck (How Children Learn Mathematics) reminded educators of the essence of children developing both calculation competence and mathematical understanding. To solve real problems, we need to understand mathematics. Paradoxically, to understand mathematics, we need to solve real problems. The importance of children being able to play and explore their mathematics with real objects, in real situations, is a key element of mathematics at Yorke Mead.



As children develop mathematically they need to take the essential steps from the concrete to the abstract. At Yorke Mead we believe that at all stages of children's mathematical development, from Early Years to Year 6, this is achieved in the same way. Children need to progress through a sequence of abstraction.

How the mathematics curriculum meets the needs of children at Yorke Mead

The children at Yorke Mead come from a variety of different backgrounds and social economic groups. They all have different life experiences and at Yorke mead we appreciate the effect this can have on a child's learning. We believe that every child can achieve and strive to ensure this happens at York Mead. Here are some of the ways we support specific groups of pupils at Yorke Mead.

SPECIAL EDUCATIONAL NEEDS

Children with SEN are taught within the daily mathematics lesson and are encouraged and supported to take part. Where applicable a child's IEP may incorporate suitable objectives for mathematical development which teachers keep in mind when they are planning work.

Additional support staff, such as teaching assistants, allows a smaller ratio of adults to children. It is not appropriate that SEN children **always** work with support – they also need to be able to work independently, and teachers achieve this by careful and appropriate planning. It is also highly important that teaching assistants work with pupils at all levels and that those who find mathematics the most challenging benefit from more opportunities to work with a teacher.

CURRENTLY LOWER ATTAINING PUPILS

Where it is identified that children are currently lower attainers teachers will support these children through differentiation and where appropriate tracking back to earlier years in the Hertfordshire Sequence plans which are available for staff on the shared drive. These children may also, if appropriate be given additional support through short term, carefully planned interventions. It is not appropriate that currently lower attaining children **always** work with support – they also need to be able to work independently, and teachers achieve this by careful and appropriate planning.

HIGHER ATTAINING

Within the daily mathematics lesson teachers not only need to provide appropriate activities to support children who find mathematics difficult but also activities that provide appropriate challenges for children who are high achievers in mathematics. On occasions a Turbo challenge may be provided to stretch higher attaining children further if assessment has shown this is required. These turbo challenges are aimed at deepening children's understanding and developing higher level thinking skills. This may involve children proving a mathematical concept in more than one way or investigating generalizations to prove mathematical hypotheses. Included in the Hertfordshire Sequence Plans there are a number of activities specifically for these pupils to support our teachers planning. It is important that these children are given the opportunity to, at times, work alongside an adult in the classroom.

ENGLISH AS AN ADDITIONAL LANGUAGE

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multi-cultural aspects of mathematics.

In the daily mathematics lesson, we support children with English as an additional language in a variety of ways e.g. repeating instructions, emphasising key words, using picture cues, playing mathematical games, encouraging children to join in counting, chanting, finger games, rhymes etc.

Children for whom English is an additional language may benefit from Pre-Teach sessions where new mathematical vocabulary is introduced prior to the maths lesson.

In our maths lessons we use talking frames these are used to support all the children with mathematical language but are especially beneficial to those who have additional language needs.

GENDER

We aim to encourage all children to see themselves as mathematicians and to strive to achieve their full potential. It may be appropriate at times for a group of same sex children to work together e.g. quiet girls, to encourage them to talk about their mathematics. The Inclusion lead across the school monitors progress of both boys and girls alongside the mathematics leader to ensure any gap is identified and action is taken to reduce this.

How the mathematics curriculum supports the development of children's reading

Where possible and educationally appropriate in mathematics we try to make links to the class text or topic to develop cross curriculum links. An example of this is in the foundation stage the maths activities during free flow and focus groups will usually relate to the class text. In maths children develop the ability to read mathematical language and there is much discussion about what the different symbols we use, and vocabulary means. Both orally and in writing the children are immersed in mathematical language and discussions are held about which words mean the same. Children at Yorke Mead are taught how to read and understand word problems and given the skills to understand how to apply their maths skills.

How the mathematics curriculum supports children's spiritual, moral, cultural, social development

Spiritual – Through the mathematics curriculum at Yorke Mead we aim to support the children's ability to reflect on their thinking and that of those around them through the wonder of where maths occurs in nature e.g. the symmetry of a minute snowflake. Through problems solving the children get the feeling of amazement that they have been able to solve something that seemed so challenging. Or when they listen with awe to a fellow pupil's explanation of how to solve a mathematical problem. In mathematics we are able to discuss and share the thoughts and ideas around infinity and what this means.

Moral – Much of the mathematics we teach at Yorke Mead relates to real life so there are many aspects of the curriculum that lend themselves to develop children's morals. Here are just some of the ways that maths can support the children's moral development. During lessons on data handling we can look at how data is used to show opinions and how it can be manipulated. How fairly a survey is written. Discuss what data can be used for and the size and mix of people being questioned. Through problem solving the children may need to question morals and will be encouraged to respect the ideas and reasoning of others whilst also questioning the ideas. Fractions can be used to help teach about fairness as can division. When using the mathematics apparatus there is the need to think about the fairest way to share the apparatus and take turns.

Cultural – In mathematics children at Yorke Mead get the opportunity to show their cultural development through their willingness to participate in and respond maths work from a number of

different cultures for example, shapes in Rangoli patterns, the shapes and patterns in Islamic art and the use and meaning of Roman numerals.

Social – At Yorke mead the children change their talk partners weekly giving them the opportunity to work with a range of different children across the year in all subjects including maths. There are often opportunities within maths for social development where the children must share apparatus or work within small groups. Much of the maths we do requires the children to explain and question. Having the ability to listen and respond to others is a vital part of the children's development.

How the mathematics curriculum supports children's emotional well being

A brief overview of how the mathematics curriculum supports the development of the whole child. Please read this in conjunction with the school document 'Personal Development at Yorke Mead'.

SMSC **Spiritual, Moral, Social & Cultural Development**	**British Values** • Democracy. • The rule of law. • Individual liberty. • Mutual respect. • Tolerance of those of different faiths and beliefs	**Character Education** Develop as moral, civic, good, mannered, behaved, non-bullying, healthy, critical, successful, traditional, compliant or socially acceptable beings	**Cultural Capital** **The accumulation of knowledge, behaviours, and skills that a student can draw upon and which demonstrate their cultural awareness**	**5 Ways to Wellbeing** **Well-being is central to teaching at Yorke Mead. It underpins every curriculum area and all children have specialist staff to work with.**
Please see above	These values underpin all areas of mathematical learning and are particularly prevalent in maths linked to P4C. In mathematics they are supported by the use of diverse materials representing different cultures, taking into account the views of others in share activities, following class rules, making own choices within safe boundaries,	**In mathematics this links to critical thinking in discussions such as group work in investigations or playing mathematical games as team and against other teams**	**In mathematics this applies to cross curricular work, using patterns from other cultures, working in mixed age groups for example on "maths day"**	**In mathematics we consider positive communication skills, good problem-solving skills, healthy coping skills and resilience to manage failure – the use of the "pit", using our 5 B's, the knowledge, skills and confidence to seek help.**

Organisation and planning

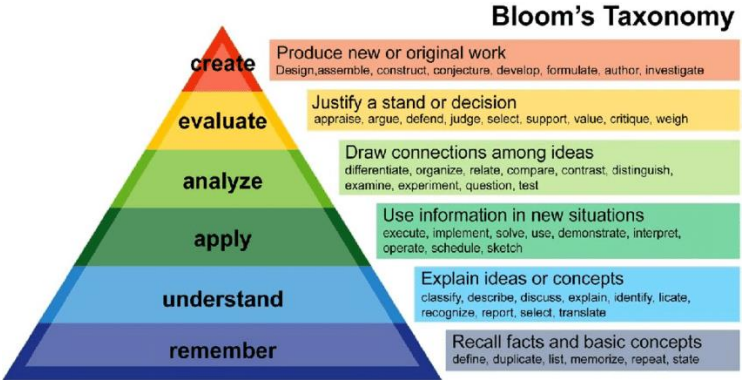
Organisation

At Yorke Mead we value the team approach and with this in mind we aim to group subjects together so that consistency across similar subjects is maintained as far as possible. This also means subject leaders are not working in isolation.

Mathematics is part of the discover team along with science, computing and design and technology.

Yorke Mead follows the Hertfordshire Essential Planning. The sequences are written as a spiral curriculum in which learning is built upon step by step, sequence by sequence and year on year. It is aspirational and ensures progression and coverage through the primary phase.

Planning –



Teachers at Yorke Mead are provided access on the staff drive to the long and medium term plans from the Hertfordshire Essentials. These plans outline the curriculum content and learning intentions to be covered throughout the year, the order that they are to be completed and the skills to be taught. It is the teacher's job to outline the delivery of this curriculum in a detailed daily plans which may be on a Powerpoint presentation, written table or smart board style depending on the preference of the teacher. The purpose of this is to manage workload of the teachers and to ensure that time spent on planning is the most purposeful it can be to meet the needs of the teachers and the children.

Each class teacher is responsible for planning for the mathematical learning in their classroom, working in consultation with their year group partner and the mathematics subject leader.

The approach to the teaching of mathematics within the school is based upon these key principles:

- ✓ ***a mathematics lesson every day***
- ✓ ***a clear focus on developing mathematical fluency with mental calculation; going broader, richer, deeper at each stage before progressing onto higher skills***
- ✓ ***a clear focus on direct, instructional teaching & interactive oral work with the whole class and guided groups***
- ✓ ***an emphasis on & encouraging children to talk about their maths work***

In the Foundation Stage teachers base their objectives to enable the children to work toward the Early Learning goals for Mathematical Development. Children will work individually and in small groups with some whole class discussions. Teachers in Year 1 build upon this work with a whole class introduction and plenary but continuing with small group activities in the Autumn Term. Over the Spring Term teachers in Year 1 draw the elements of a daily maths lesson together so that by the Summer Term in Year 1 children are familiar with the whole class mathematics lesson. The key focus of learning in Year 1 is on a thorough understanding of numbers to 20 and fluency working with these.

In Key Stage 1 the daily mathematics lesson is at least 45 – 50 minutes long, and in Key Stage 2 the lesson lasts around 60 minutes. The lesson is usually in the morning; though where timetabling makes this difficult or opportunity is being taken to explore a cross curricular link there may be occasion for the lesson to take place at other times.

A copy of the lesson plan (or notebook / PowerPoint) is given to any teaching assistant working with the class in sufficient time for them to be able to read & discuss with the class teacher prior to the lesson. Copies of lesson plans are kept on the school network. The mathematics co-ordinators will monitor planning throughout the school.

<u>Super, Mega, Ultra</u>

Planning is generally differentiated to three levels to allow children to work at an appropriate level for their ability. Children are encouraged to choose the level of challenge for themselves depending on their confidence in the task. Staff at Yorke Mead recognize that children may be highly confident in some

aspects of mathematics e.g. money yet less sure in other aspects e.g. time. Super, Mega, Ultra challenges allow flexibility in teaching so that children are able to be challenged appropriately in every lesson. Children are encouraged to recognize when a challenge is too easy or too hard and to move between challenges in any lesson as appropriate. At times an "turbo-challenge" is added for those who need a greater challenge.

Teachers will monitor the challenges children are choosing and if necessary, support and encourage them to choose the right level of challenge. Where teachers feel that groups would benefit learning these are used, any groups are flexible to allow children to be challenged appropriately and respond to day to day assessments.

Progression and Sequence of Learning

By the whole school following the Hertfordshire Essential Planning this help ensure that there is appropriate challenge and progression across the school, this is monitored by the mathematics subject leaders. Teachers use destination questions to ensure that children understand the taught concept. These destination questions are produced at an age-related level giving the teacher a good understanding of how the child has coped with the concept being taught. In KS2 the children are sometimes given the opportunity to feedback what they have learnt and can remember from a lesson during purple pen time.

Early Years

All aspects of our curriculum for Key Stage One and Two build from the Early Years curriculum, which is centred around the needs and interests of the Early Years children at Yorke Mead. Whilst this policy is relevant to all stages of education at Yorke Mead it is essential this is read in conjunction with the EYFS policy.

This mathematics curriculum policy should be read in conjunction with the following policies:

- Yorke Mead curriculum policy
- Teaching and Learning Policy
- Early Years Foundation Stage (EYFS) Policy
- Personal development at Yorke Mead

Assessment for Learning

In marking books teachers at Yorke Mead recognize they are marking for the children. Marking should be prompt and timely to enable the formative assessment to feed into the next lesson. **An essential element of this is giving children time to read and respond to the previous days marking at the start of the next lesson.**

Work in mathematics can generate a great deal of marking, and it is recognised that it is not always possible or desirable to carry out in depth marking of every piece of work. Work involving routine practice could in the key Stage 2 at times be peer marked with guidance from the teacher and at times Year 5 and 6 children could be encouraged to check computational work using a calculator. At these times the focus will be on sharing the process or methods used.

The **quality of marking is the crucial factor**. Marking should be diagnostic not just summative. It is best done through conversation with the child, but the school acknowledge constraints of time do not always allow this. A simple "x" is of little assistance unless accompanied by an indication of where the error occurred, together with an explanation of what went wrong. If a child has struggled with an activity to see a series of X's will do little to their self- esteem. At such times it is more appropriate that marking is done through a conversation with the child.

Next step / modelling in marking should be used to help children identify where they have a misconception or to move learning on. This approach to marking should not be restricted to only times when a child has struggled – **it should also be used to challenge children further**.

Younger children may struggle to read explanations and teachers may choose to mark work of these children with comments to support assessment, with more immediate feedback being given to the child using stickers or verbal comments. Teachers of these children will tick the WALT with either one tick for partially met or two ticks for fully met.

Children also should have regular opportunities to have a learning conversation about their mathematics with their teacher. These generally take place on a weekly basis for 3-4 children during one of the longer assemblies. This time is used to share approaches to learning and discuss targets for future learning.

At Yorke Mead we believe that daily high-quality formative assessment provides the link between teaching and learning.

Each teacher is expected to make regular ongoing assessments of a child's progress to enable them to plan appropriately the next steps of learning. These may be recorded using anecdotal notes on the daily lesson plan, on feedback sheets by a teaching assistant kept by the teacher or as comments in the child's maths book.

Across the school times tables are taught weekly and tested every fourth week. These are marked with the children so that misconceptions can be corrected, and the merits of different methods discussed. The results of these tests and a certificate are sent home so parents can support their children's learning of multiplication tables and associated division facts. There are ladders of attainment for each year group. Each child will receive either a well done, bronze, silver, gold or platinum certificate. When this test is revisited the child can aim to attain a higher level.

At Yorke Mead in mathematics we carry out the following more formal assessments:

- End of Unit Assessments – at the end of each unit teachers highlight against learning objectives to show the learning that has been achieved. The highlighting is colour coded (orange autumn, yellow spring and green summer) to show the rate of progress
- Assessment Tasks –Using the principles of assessment for learning, we make use of a series of tasks designed for teachers to use within teaching and learning sequences. These help teachers to identify short-term (within the same lesson) and longer-term adaptations and adjustments required for individuals and groups of learners to become more successful.
- Formal Written Tests – In the Spring & Summer Term children in KS2 complete a formal test appropriate to their mathematical ability. Year 6 take the SATS tests set every May.
- Year 2 pupils take the formal written SATS tests in May each year which are used to inform the teachers assessments alongside the TAFS.

The Senior Management Team track termly each pupils progress. As part of this each term class teachers meet with the senior leadership team for a Pupil Progress Meeting. The aim of this meeting is to allow reflection on groups of children who are achieving well and what is supporting this, and the identification of pupils who are not progressing & what may support their progress.

Inclusion

Teachers set high expectations for all pupils. They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- Currently higher attaining pupils
- Pupils with low prior attainment

- Pupils from disadvantaged backgrounds
- Pupils with SEN
- Pupils with English as an additional language (EAL)

Teachers will plan lessons so that pupils with SEND can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving.

Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in all subjects.

Further information can be found in our statement of equality information and objectives, and in our SEN policy and information report.

Safeguarding and Safe Practise

In all areas, at all times, staff at Yorke Mead are aware of safeguarding responsibilities and health and safety. Some aspects of learning naturally require greater need to be aware of planning for safe practise than others. Where there is any form of risk to children staff will have completed a risk assessment to manage this risk and ensure procedures minimise or remove the risk. The school has a number of generic risk assessments to cover those aspects where risk will be evident at all times such:

- *Working with potentially hazardous equipment e.g. scissors.*
- *Outdoor learning*
- *School trips*

There are times when children may be more likely to disclose a safeguarding concern, for example as part of mathematics when scores for tests are given, if there is a risk of a negative response from parents due to a child's achievement. There is also always the possibility that a real-life word problem could trigger an emotional response or memory for children. Should there be a concern or disclosure from a pupil, staff will always follow the school safeguarding policy.

The role of the mathematics subject leaders

Subject Leaders will ensure that the school curriculum is implemented in accordance with this policy and specific subject and that:

- All required elements of the mathematics curriculum have aims and objectives which reflect the aims of the school and indicate how the needs of individual pupils will be met.
- Long term planning is available for mathematics to support individual teachers in their planning
- The amount of time provided for teaching mathematics is adequate and the curriculum meets the aims and objectives for each year group.
- Standards within the mathematics are monitored, meet the expectations and that the head teacher and phase leader is informed of any concerns around this.
- Resources required to deliver the mathematics curriculum are available and accessible to staff.
- The policy and practise within mathematics is updated to reflect current educational research in consultation with the Head teacher, SLT and governors.
- Supporting staff to have the pedagogical understanding necessary to successfully teach the mathematics curriculum, and any required training is brought to the attention of the senior leadership team.
- The school's procedures for assessment meet all legal requirements
- Where appropriate, the individual needs of some pupils are met by permanent or temporary disapplication from all or part of the National Curriculum, allowing the most appropriate individual curriculum needs to be met in consultation with the Head teacher and school SENDCo.

- Proper provision is in place for pupils with different abilities and needs, including children with SEND policies.
- Link governors are kept up to date with policies and procedures linked to mathematics.

This policy should be read in conjunction with the Yorke Mead Curriculum Policy. The following sections are as listed within this policy:

- **Legislation**
- **Roles and responsibilities**
- **Monitoring, reporting and evaluation**

Policy Review

This policy will be reviewed every three years by the headteacher, senior leadership team and governor curriculum team. At every review, the policy will be shared with the full governing board.

Links with other policies

This policy links to the following policies and procedures:

- Teaching and Learning Policy
- EYFS policy
- Assessment policy
- SEN policy and information report
- Equality information and objectives
- Inclusion Policy
- Relationships Education, Sex and Relationships Education (SRE) and Health Education Policy
- Pupil Premium Policy

Appendices

Please attach in the appendices a copy of the following:

- An **Interactive Maths Board/ Working wall** – where mathematical vocabulary, models & images are displayed as reference and activities are included to support and engage children in their learning.
- **Mathematical Toolkits** to support learning – each classroom is equipped with a range of practical resources to support children in their work. These include counting apparatus, number lines, number squares, maths dictionaries, calculators etc. Children should know where resources are kept and always feel that they are able to select resources as required to support their work. Some more specific resources are stored in a central maths area for teachers to select when required. **Teachers are focused on teaching children how to access and use practical resources efficiently to support their learning.** Resources should never be simply placed on tables without prior teaching.
- **Thinking time / Talk Partners** – questions when asked should where possible be open to encourage children's thinking skills and children should all get the opportunity to participate. Teachers make use of a variety of methods to ensure all children are involved in mathematical discussions and are encouraged to explain their thinking to others. Lolly sticks enable all children to be actively encouraged to take part in mathematical thinking.
- **Learning Journey** – to help children to understand why they are learning something, and where their learning will be leading to in any one unit of work, teachers will share the units learning

journey with the children rather than just the days learning intention. On a day to day basis teachers can then identify where they have reached within the learning journey.

- **Good Mistakes and Being Stuck** – where possible we aim to help children see mistakes as learning opportunities and view these positively. Teachers will praise children who recognise their mistakes and learn from these, 'borrowing mistakes' for others in the class to learn from. Children are also encouraged to see 'being stuck' or 'in the pit' as a key part of learning- teachers will encourage children to use the 5B's to get out of the pit (see teaching & learning policy)
- **Assessing Progress** and **Involving Children –** at the end of each lesson children in key stage 2 are encouraged to reflect on their learning and comment on this in their books. At the end of units of work teachers will ask children to reflect on the confidence they have against the learning journey for the given unit.