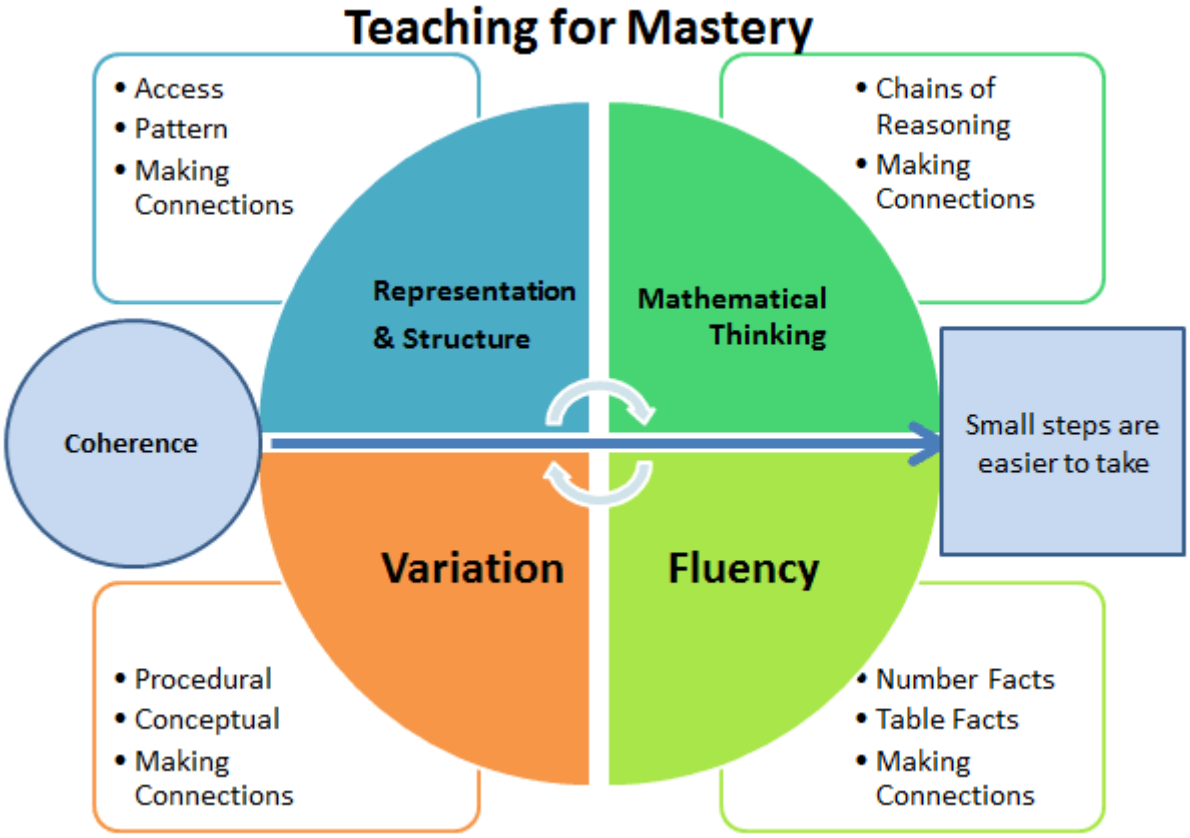
Galley Common Infant School

Mathematics Policy

Aims and Purpose of Study

Being mathematical is a vital set of skills for life that needs to be taught effectively. Mathematics teaches children how to make sense of the world around them through developing their ability to calculate, to reason and to solve problems. It enables children to appreciate and understand relationships and pattern in both number and space in their everyday lives.

Our school teaches Mathematics using the mastery approach as laid out by the NCETM (The National Centre for Excellence in Teaching Mathematics).



The aims of Mathematics are:

To 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.

To **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

To **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.

Teaching and learning style

The school uses a variety of teaching stylers to cater for the variety of learning styles of pupils in Mathematics' lessons. Mathematics is taught throughout the week in whole class and group settings across the EYFS and KS1. The mastery approach involves whole class interactive teaching, ensuring that all children have a secure grasp of the concepts before moving on, with challenges and deeper questions built into the learning at every stage. The approach involves high expectations for all and the aim that no child is left behind. Representations move from concrete to pictorial to abstract and support is targeted to address gaps and misconceptions. To support this approach, we use both the NCETM Mastering Number at Reception and Key Stage One and the White Rose Maths' schemes. We recognise that in all classes there are children of differing Mathematical ability, sometimes from topic to topic. We appreciate this fact and provide suitable learning opportunities for all children supported by resources, images, working walls, adults and collaboration partners. Learning is firstly practical and then written, but not all lessons contain representing in the children's books. There is the option of putting evidence of practical learning in class floor books.

Implementation

Pupils in Reception have 4 Mastering Number and 1 Space, Shape and Measure lesson a week.
Pupils in KS1, Y1 have 4 White Rose and 4 Mastering Number lessons a week.
Pupils in KS1, Y2 have 5 White Rose and 5 Mastering Number lessons a week.

Mathematics Planning – Key Stage One

Maths is a core subject in the National Curriculum and we use the National Curriculum 2014 as the basis for implementing the requirements of the programme of study for Mathematics in our year group long term plans. We adapt the White Rose schemes of learning for each year group in the medium and short term as necessary and discuss this weekly in our planning sessions. During PPA we adapt the power points, selecting the most appropriate slides, representations, resources and activities for each session. We deliver the Mastering Number Programme as it is prescribed. In each power point, we include a slide of that lesson's sentence stem. Staff model this regularly throughout a lesson and children then use the language with their collaboration partners. This is part of our drive to promote Oracy in all areas of learning.

Mathematics Planning – Early Years Foundation Stage

Mathematics in the Early Years Foundation Stage (EYFS) is planned in line with the statutory framework of the Early Years Foundation Stage Framework and supported by the guidance within Development Matters and Birth to 5 matters.
Mathematics is planned to provide a balance of adult led, child-initiated provision and opportunistic learning through play and daily routines. We deliver the Mastering Number Programme as it is prescribed. To enhance this programme, we ensure that children have a wide range of concrete and practical opportunities to develop their mathematical concepts, build strong number sense, and apply their knowledge through reasoning and problem solving.

Teaching Mathematics to children with Special Educational Needs and providing Equity

All children have access to all aspects of the mathematical curriculum, as part of the School Curriculum policy to provide a broad and balanced education to all children, where all pupils make progress. At Galley Common School we have a graduated approach to SEN Support and this includes support in mathematics. Ultimately teachers are responsible and accountable for the

progress and development of the children in their class, including where pupils access group support from teaching assistants during mathematics lessons. We understand that high quality teaching and suitable learning challenges adapted to individual pupils' needs are the first steps in responding to pupils who have or may have SEN. Interventions include using the NCETM Mastering Number programme from the previous year group to secure learning and avoid gaps and misconceptions. Learning is also adapted by covering the same objective with smaller numbers and is often more practical than written. Assessment will be made against the appropriate criteria and depending upon the individual child this could either be the National Curriculum, the Early Years Foundation Stage Curriculum, Continuums and Pre-Key Stage Standards. This allows us to consider each child's attainment and progress against expected levels and beyond. When progress falls significantly outside the expected range, the child may have special educational needs. Children who need mathematical support above and beyond what is given may be identified as needing individual SEN support. Such intervention aims to help to close gaps in the children's maths learning so they can fully participate more confidently in class. The mastery approach to teaching Mathematics broadly ensures that all children keep up with the learning through small steps that focus on breadth and depth. Extra stretch is provided through chilli challenge activities that cover the lesson objective in greater depth by using the child's skills to use and apply the lessons' Maths' knowledge further.

Assessment and recording

In Key Stage One, we make short-term formative assessments of the daily lesson objective which we use to inform and adjust our daily plans. These are based on informal observations of practical and written learning and they are recorded on the objectives' grid as green for exceeding, yellow for expected and red for emerging.

We make medium-term summative assessments based upon all of our evidence from the objectives' grids of short-term assessments, end of unit assessments and teacher judgement. We measure progress against the key objectives which helps us to plan the next steps for the subsequent term. These judgements are then recorded termly as attainment on our online portal Arbor and discussed at progress meetings. Tracking also identifies if children are making below expected, expected or above expected progress.

We make long-term assessments towards the end of the school year, and we use these to assess progress against school and national targets. Both the short term and medium-term assessments will inform these judgements. We can then set targets for the next school year and make a summary of each child's progress before discussing it with parents as part of their report. We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. We are continuing to use the optional national tests for children in Year 2.

On entry to Reception, children complete the statutory Reception Baseline Assessment. This provides a national starting point measure. In addition, practitioners carry out their own baseline assessments through; observations, interactions and practical mathematical activities. This ensures planning is accurately matched to children's starting points.

Formative assessment is ongoing in Reception. Practitioners use high quality interactions to assess children's understanding during adult led sessions, small group work, continuous provision and child-initiated play. Misconceptions are identified promptly and addressed through intervention or adapted provision. Assessment evidence may be through teacher cube sheets or photos/observations on tapestry or teacher dialogue.

We make medium term summative assessments based on upon professional knowledge of the child and their understanding of maths concepts. These judgements are then recorded termly as

attainment on our online portal Arbor and discussed at progress meetings. Tracking also identifies if children are making below expected, expected or above expected progress.

At the end of the reception year, teachers make a holistic judgement against the Mathematics Early Learning Goals as part of the EYFS Profile. Judgements are based on ongoing formative assessment, professional knowledge of the child and a broad range of evidence collected over time. Children either achieve the ELG, or they do not. We can then set targets for the next school year and make a summary of each child's progress before discussing it with parents as part of their report. We pass this information on to the Year 1 teacher at the end of the year, so that s/he can plan for the new school year.

As part of our assessment process, we moderate across year groups and cluster schools through moderation meetings. We particularly look at children who are on the cusp of the on track/not on track (EYFS) and expected and exceeding KS1) standard.

Resources

Most Mathematics resources are kept in classrooms. Larger equipment for Shape, Space and Measure is kept in a storage room near Class One. In Reception, resources are introduced to children during Mastering Number sessions and small group teaching. They are then rotated to be out in provision for child and adult-led learning. In Key Stage One, we are developing our storage of resources. Some classes are trialling a packet per child of resources to be used during Mastering Number, class teaches and independent learning too. Other resources are selected as appropriate to the lesson objective from resources stored in drawers in each classroom. We regularly update and use our working wall to model the current Mathematics through models, images, resources and worked examples that will scaffold the children's learning.
ICT is used in various ways to support teaching and to motivate children's learning. These technologies will however only be used in the daily Mathematics' lesson when it is the most efficient and effective way of meeting the lesson objective.

Parental Involvement

We put on an annual parent's workshop when the Maths' lead goes through the progression of learning across Number with parents. The focus is on resources, models and images which give them an insight into how Maths is taught in school today. The children then join the workshop and as parents interact with their children and the Maths' activities, they become more aware of how to support their children's mathematical development at home.

Spiritual, Moral, Social and Cultural Development

The teaching of Mathematics supports social development through collaborative learning and collaboration partners at various parts of the lesson. Spiritual development is supported through the curiosity, awe and wonder around shape, pattern and logic. Moral development is supported around making choices, being respectful and doing the right thing. Cultural development looks at various Mathematicians and mathematics in different cultures around the world. For example, in Mastering Number, we use the Hungarian Maths' frame.

Monitoring and review. Staff Responsibilities

Monitoring within mathematics addresses the standards of children's learning and the quality of teaching in mathematics.

Subject Leader. The work of the subject leader involves supporting colleagues in the teaching of mathematics and being informed about current developments in the subject. The latter is mainly achieved through mathematics training meetings. The role also includes providing a strategic lead and direction for the subject in the school. Results of work trawls, lesson observations, pupil interviews and looking at class planning all help to keep the subject leader informed.

Head Teacher. The Head Teacher allocates some management time to the mathematics subject leader so that s/he can review samples of children's work and undertake lesson observations of mathematics teaching across the school. The Head Teacher needs to keep well informed about mathematics in school and particularly does this through planning, learning and environment trawls with the leadership and management team. During some of the Head Teacher's teaching time, s/he is able to see mathematics first hand and s/he observes mathematics around the school, throughout each academic year.

Governors. A named member of the school's governing body is briefed to oversee the provision for mathematics. This link governor is welcome to meet or communicate via e-mail with the subject manager to review attainment and progress as part of the governors' monitoring cycle. They are also welcome to observe mathematics in school at any time.

Class teachers. The class teachers have responsibility for implementing the National Curriculum for mathematics and Mastering Number in their classrooms. They plan and evaluate mathematics lessons daily, weekly and termly/half-termly. Teachers also attend staff meetings and inset training that have relevance to the mathematics curriculum. Teachers plan for and instruct teaching assistants who support the various elements of a Mathematics provision.

Teaching assistants. Teaching assistants support mathematics work within the classroom. They discuss daily plans with the class teacher and aim to carry out these plans. They help and encourage all children to participate in all aspects of mathematics. They feedback to the teacher, concerning children with either difficulties or successes. They are also involved in some inset training concerning mathematics.

Signed *J A Newman*

Date 02.03.26

Policy agreed
Next review
Previous review dates