

**DOVER PARK
PRIMARY SCHOOL**



Mathematics Policy

Date agreed: October 2022

Review date: October 2024

Signed: _____

Chair Board of Governors

Vision

At Dover Park we recognise that mathematics is an exciting medium through which to learn skills for life. We aim to inspire all children to reach their full academic potential. In mathematics this means ensuring a curriculum that is fully inclusive for all children which:

- Develops children's knowledge and understanding of Mathematical concepts whilst supporting them to practise and hone skills and methods.
- Enables them to think critically and communicate their understanding
- Gives them opportunities to apply learnt mathematical skills in different contexts across the curriculum
- Provides opportunities to develop problem solving skills useful for maths and across the curriculum.

This policy is set within the context of the school's vision, aims and policy on teaching and learning. As a result of their learning in mathematics and problem solving across the curriculum children will:

- Be prepared for applying their skills effectively in everyday life situations, in their future learning and in the work place.
- Have the building blocks in place to provide a solid foundation to lead onto secondary education.

Aims

The National Curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent 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.
- **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

At Dover Park, we use the 'Hampshire Phase Expectations' for Mathematics to ensure that all parts of the National Curriculum Programme of Study are taught within a reasonable time frame to promote deep learning.

We aim to ensure that throughout the school children are given opportunities for:

Practical activities and mathematical games

Problem solving

Individual, group and whole class discussions and activities

Rich mathematical tasks

A range of methods of calculating e.g. mental, pencil and paper, using jottings and using a calculator (at the end of Year 6 for transition purposes)
Working with computers as a mathematical tool

In the Early Years Foundation Stage, teachers plan from the Foundation Stage Profile working towards the Early Learning Goals for Mathematical Development. Mathematical activities and experiences are planned into their daily continuous provision and adult led tasks.

It is a requirement that all teachers learn and use the calculation policy in order to model methods and best practice.

Planning

Our school follows the recommended medium-term plans set out by Hampshire County Council and phase plans for each term. Weekly planning, using Dover Park's agreed planning format, ensures that children have regular opportunities for reasoning, problem solving and fluency practise. Fluency in mathematics is also covered in our 'Fluency Friday' lessons with a focus on quick recall of core skills and efficient mental math strategies.

Practical maths days are scheduled into the school calendar as are visitors that demonstrate the importance of maths in everyday life (i.e. Money Matters).

Resources

At Dover Park we believe in using the best equipment to match the needs of the learners, therefore we do not subscribe to a particular scheme, but select the best resources and ideas from a range of sources. These resources are collected through up-to-date research in maths inspired by courses attended, our Hampshire advisors and sharing good practise between schools locally and nationally. Our calculation policy is updated regularly to reflect current teaching styles and new curriculum legislation. It contains advised models to use for each stage of learning and all teachers have access to the fluency progression sheets, specifically written for each year group, by Hampshire Maths advisors.

Each classroom has a maths resource table that is updated to match the domain being taught. Children are encouraged to independently take and use the resources to aid their learning when needed.

Teachers are encouraged to use resources when children are accessing new learning but should progress children onto pictorial and abstract methods as soon as is appropriate, considering the end journey for each phase.

Staff and pupils are consistently reminded that resources should be used to challenge as well as support pupils mathematical learning.

Monitoring and Assessment

Children's learning is monitored closely during every lesson by working with the teacher or teaching assistant, through peer discussion or self- evaluation matched to the learning objective.

The teacher is encouraged to give feedback through marking in the form of 'next steps for learning' and encourages swift and timely correction of misconceptions though THINK PINK marking and BETTER IN BLUE response to marking from

pupils. Children work towards meeting their maths objectives which are presented in their work books. This practise will be evident in the children's work and the teachers' marking.

Teachers mark the child's work and assess against the pupil's individual learning journey using HAM (Hampshire Assessment Model) SIMS (School Information and Management System). This system tracks the child's maths progress from Year 1 through to Year 6 and identifies strengths, areas for improvement and where gaps in knowledge need additional teaching and is passed to every new teacher each year.

Formal/summative assessment is conducted at the end of every phase, where the children are assessed against each objective taught through a scrutiny of evidence in work books.

Children in years 1, 2, 3, 4 and 5 take the NTS maths tests, which consist of a fluency and a reasoning paper, to check that they are working at age related progress and to track progression.

In Year 2 and Year 6 the children take Statutory Assessment Tests and can access practise SAT's questions through past papers held by the school. Teachers in those year groups attend external moderation meetings and End of year expectation meetings led by Hampshire Advisors.

In Year 4 children will be tested on their Multiplication knowledge in the Times Table Check.

In EYFS assessment is based primarily on the practitioner's professional knowledge of what the child knows, understands and can do day to day. This will inform the EYFS profile at the end of the foundation stage.

Those children who are on the SEND register and working at a significantly lower level a range of assessments will be used to track progress and identify next steps.

Reporting

Children's' attainment is tracked and reported using HAM SIMS model. This is done by assessing each pupil against age related expectations. Each class teacher has an agreed class expectation of attainment based on the annual 'Dover Park Milestones' document, performance management targets and pupil progress meetings and RAPs (Raising Attainment Plans). Teachers produce a termly report of attainment and effort in the autumn and spring which is shared with parents at parent's evenings, in addition to the annual report given to parents in June. Parents are also half termly overviews showing what their child will be learning, these can also be accessed via the school website.

Intervention

Maths should be taught every day for a minimum of 10 minutes whole class in EYFS with the expectation that small group work will proceed this input and maths activities will be woven into daily activities and play, a minimum of 45 minutes daily for KS1 and 60 minutes daily in KS2. Quality first teaching is the school's main approach for keeping children 'on track'. Where children need further practise, they may receive additional support (gap tasks) in addition to their daily maths lesson. Staff who

deliver gap tasks collaborate closely with the class teacher. Intervention work should be evident in the class maths book so that the child can reference it and the teacher can track progress. Interventions should also be recorded on Provision Map so that progress is evidenced.

The Learning Environment

A mathematics learning wall is evident in each classroom. This should contain information for pupils relevant to their current maths topic. They should contain:

- A clear learning journey
- Key Vocabulary
- Good examples of work
- Demonstrations of strategies
- Open ended questions

We encourage teachers and children to use the learning wall during the lesson to provide access to the information they need during lessons.

Practical maths resources are available for children to access in every lesson and should be used as needed across the school to support and challenge learning. These should be clearly labelled and the children trained to find them and replace them independently. A selection of maths challenges should be available in every maths lesson to deepen the learning.

The Role of the Subject Leader

The maths subject Leader is accountable for mathematics learning and outcomes across the school. They should have a strategic view of the school's and each cohort's strengths and areas for improvement. Their job is to work with teachers and other staff to secure improvement. They will need to:

- Identify, appraise and disseminate good practise in school by conducting lesson observations, work scrutiny, learning walks and pupil interviews.
- Analyse whole school data and plan for whole school improvement
- Identify issues regarding progression of pupils which may include gender, EAL, Pupil premium or special needs.
- Plan support for teachers through mentoring or suggesting relevant training in order to support pupil progress.
- Run INSET to update staff and disseminate information.
- Collaborate with all stakeholders including the Hampshire Maths Team, lead schools, governors and parents.
- Where data indicates a whole school issue it will be discussed by the senior leadership team and addressed in the school action plan.
- Order and maintain high quality maths resources.