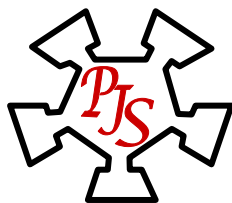


Priory Junior School

MATHS POLICY

Policy Date: December 2019
Review Date: December 2024





Priory Junior School Mathematics Policy

Aims and Objectives

The national curriculum for mathematics 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.

In Mathematics, we aim to:

- To equip pupils with the mathematics they need to become numerate.
- To develop pupils ability to apply mathematical skills with confidence and understanding when solving problems.
- To enable pupils to express themselves and their ideas with assurance, using the language of mathematics
- To develop positive attitudes to mathematics, recognising that mathematics can be both useful and enjoyable.
- To nurture a fascination and excitement of mathematics and problem solving
- To be able to use and apply the skills in other curricular areas and everyday life.

Curriculum Organisation

Currently the Mathematics taught in school follows the year group expectations of the National Curriculum. Objectives are set out into year groups and are revisited and built upon in units of learning throughout each year.

How We Teach Maths (including Mastery)

Maths lessons are taught every day and are based around this structure:

- A Fluency lesson for around 15 minutes, which includes counting, and practice of mental strategies, and written strategies.
- Mastery lesson for 45 minutes
 - Within the lesson, the teacher will take a guided group to focus on a particular area of the learning.
 - Teaching Assistant to support the learning of individual children/small group to focus on a particular area of the learning.
- Regular Plenary sessions for approximately 5-10 minutes, to evaluate the success of the learning and make links to what they have learnt and how they can use it to extend the learning focus.

The school makes use of the Herts for Learning Essential Maths planning materials to support learning, and has clear progression within this. Number fluency lessons link closely to this planning framework too.

Maths lessons use models and images, with explanations, for the mathematical area being taught. Teachers make use of practical resources and model how to use these appropriately in the lesson.

These resources are provided to the children to use to support their learning in the lesson. There is an emphasis on the use of appropriate mathematical language and opportunity for mathematical discussion between teacher and children.

Children are taught a range of efficient strategies to work out answers mentally, learning the quick recall of simple mathematical facts with fluency.

The Written Calculation Policy should be referred to when teaching formal methods to the children. This ensures a consistent school approach and aids the children's progression.

The Mathematics curriculum is organised as a discrete subject taught daily, however, cross-curricular links are made between areas of learning that will deepen children's understanding by providing opportunities to reinforce and enhance their mathematical skills.

Learning is enhanced by:

- Giving further opportunities to practise taught skills through purposeful use in other curriculum areas;
- Providing real experiences, context and meaning for the development of core mathematical skills;
- Assisting memory through providing opportunities for children to use skills in different contexts;
- Providing opportunities for the application of knowledge in new contexts, to involve children in higher order thinking skills, such as reasoning and problem solving;
- Providing opportunities for learners to recognise and develop key aspects of learning, e.g. looking for patterns and relationships, problem solving and reasoning;
- Mastery concepts developed by providing all children with opportunities to meet the same or related information in different ways, adding to the richness of their experience.

The use of technology is an integral part of Maths teaching and learning. Staff make use of online resources, software and hardware to enhance their teaching and learning. Times Tables Rock Stars is used throughout the school to rehearse multiplication and division facts. Mathletics is also used to support with reinforcement of mathematical skills and concepts. A range of interactive software is available for pupils to use to reinforce concepts, to provide investigational activities and to demonstrate new concepts.

Home/School links are reinforced through the use of online homework opportunities for maths, such as: Mathletics and Times Tables Rock Stars. We celebrate children's successes here in assembly each week.

Inclusion

All children have an equal opportunity regardless of gender, race or ability, to progress and succeed in their Maths learning and understanding. We pay particular attention to ensuring there is no gender bias in materials or in access to resources, including technology. Teachers should ensure their questioning enables all ability groups to make good progress.

Children learning English as an additional language may need support in developing mathematical language and concepts. Care is taken to ensure that pupils are grouped appropriately and not purely on their stage of language acquisition. Through the use of appropriate support and differentiation, EAL pupils experience the same level of cognitive challenge as their peers.

Children with SEND, where possible, through the use of appropriate support and differentiation, will be working towards the same learning objectives as their peers. Those children with special needs may have specific targets relating to mathematics, where appropriate they may be given additional support or extra teaching in small groups to help them achieve these targets.

All children will receive support from the teacher and teaching assistant to ensure they can access the learning of the lesson. The teacher will differentiate the children's work during a lesson according to their level of understanding of the topic area.

The school operates intervention programmes in addition to the daily Maths lesson. These are aimed at children who need extra support in one or many areas of their mathematical understanding. These children will be identified as needing additional support by the class teacher and through pupil progress meetings. Appropriate work will be selected for these children to carry out, using intervention programmes such as:

- First Class @ Number
- Success @ Arithmetic
- Pre-teaching groups

Children who are working well above the overall level of the class (gifted and talented) will be identified and a list given to the Gifted and Talent Subject Leader. These children will be given enriching experiences, such as:

- Maths challenges with Maths governor
- Kimbolton Master Classes
- Longsands Maths Challenge Day
- County Maths Challenge Quiz

Continuity and Progression

The Maths medium-term plan is set out in the Herts for Learning Essential Maths scheme.

As the children progress through the year they build on what they already know and deepen their understanding and learning of concepts further. The teacher will use notes on the area to support future planning and help the children get the support they need to access the area of learning with a degree of appropriate challenge.

Weekly planning is completed using the school's maths planning proforma and saved with other appropriate resources in Teams- Curriculum Planning

Resources

Each class has its own Maths resources in their room, which consist of resources the children may need in every lesson.

The rest of the resources will be kept in the central Maths resources area.

New resources will be purchased by the Subject Leader, within the budget allowed annually for Maths. The Subject Leader will prioritise needs when making purchasing decisions.

Health and Safety

Risk assessments are in place for general classroom routines.

Assessment, Recording and Reporting

Assessment is an integral part of the teaching process and used to inform planning, so that appropriate next steps are provided for the different abilities within each class. Teachers will assess using HfL assessment sheets to inform them of progress and next steps. Children will self-assess their own learning using the target pencils (stuck into their books) to give them ownership of their learning for each unit of learning. These will be regularly referred to by the class teacher throughout the unit of learning.

Feedback is given to the children as soon as possible; verbally and through marking work following the Marking Policy. Once a week improvement marking will be carried out; giving the children a personal task to complete, which develops their knowledge further.

Formative assessment enables the teacher to identify a child's understanding and progress, to inform their immediate teaching and to plan for future lessons.

This can take the form of:

- discussing mathematics in the context of a practical task
- observation
- individual discussions with children to evaluate progress
- daily marking
- Children use traffic lights against the WALT to indicate how successful they feel they have been in the lesson

Summative assessments consist of

- Termly Point in Time assessments for all years (recorded in Pupil Asset)
- Year 3-5 NFER tests
- Key Stage Two SATs

Class teachers are responsible for assessing children's attainment using HFL once a term, which will be recorded using Pupil Asset.

Parents receive a termly report which details the attainment and effort of children in Maths. The end of the year report provides information on children's areas of strength and a target for progression in mathematics. Parents are also informed on their child's progress twice-yearly during parent / teacher consultation meetings. In addition to this, any specific areas of difficulty or clarification can be discussed with the parents on an informal basis at any point of the year.

Monitoring

The Maths subject leader and MaST teacher are responsible for the monitoring of the subject as outlined in this policy. This is reported to the headteacher, senior leadership team and governing body.

The role of the Maths subject leader is as follows:

- Keep up-to-date on local and national initiatives and disseminate information
- Evaluation of children's attainment across the school against local and national data
- Take responsibility for the purchase and organisation of mathematics resources
- Monitor the planning and marking for mathematics across the school
- Write, review, implement and update the Maths Action Plan every year
- Carry out regular self-evaluation in relation to targets on the Maths Action Plan
- Encourage and support the professional development of all staff

Policy Date

December 2015

Reviewed and rewritten: December 2019