



Mathematics Policy

Written by: Martess Spiteri

Review date: July 2025

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

- Maths Calculation Policy
- National Curriculum: Programme of Study for Maths
- Maths Progression of Skills
- SEN Policy
- Marking Policy

Intent

At Joydens Wood Infant School, mathematical skills are taught following a curriculum based on White Rose Maths. We aim to equip children with the skills to reason logically, solve problems, explore, calculate and communicate. High-quality teaching and a well-planned progression model enable our children to appreciate the power of mathematics as well as developing an enjoyment for the subject.

In Mathematics we promote three key principles. These include; deep understanding, mathematical thinking and mathematical language, with problem solving at the heart of our curriculum.

At Joydens Wood Infant School our curriculum builds on children's prior learning and develop children's fluency and confidence in Mathematics. The curriculum fosters an independent and resilient culture through and allows learning autonomy for all children by ensuring that they can apply skills in a range of situations including during discrete Mathematical lessons and through enquiry based opportunities.

Knowledge and skills are intertwined through complex mathematical challenges that are developing through a fluid model of concrete, pictorial and abstract learning. Through this, we are enabling children to have exposure to rich mathematical language which they can embed, use and apply through a range of situations including both discrete Mathematics lessons and enquiry based opportunities.

Aims of National Curriculum

Mathematical thinking:

- 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

Conceptual Understanding:

- 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

Language and Communication:

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

Implementation: Teaching and Learning

Curriculum Planning

Mathematics is taught in isolation from other subjects daily from EYFS to Year 2. Each school year begins with a focus on the concepts and skills that have the most connections, and this concept is then applied and connected throughout the school year to consolidate children's learning. This supports pupils to become masters in maths. They are able to develop both mathematical fluency and conceptual understanding. The curriculum is designed to meet the requirements of the 2014 National Curriculum for England.

In our school, we follow White Rose curriculum to ensure that pupils are able to build upon skills and create a depth of understanding for the concepts taught. We ensure that our curriculum directly correlates to outcomes within Development Matters (2023) in order to support children to achieve GLD by the end of EYFS. **See appendix 1**

All year groups are expected to use White Rose and the Mathematics Progression of Skills and Knowledge Document provided by the Mathematics Leader to support planning. **See appendix 1 and 2.**

Teaching

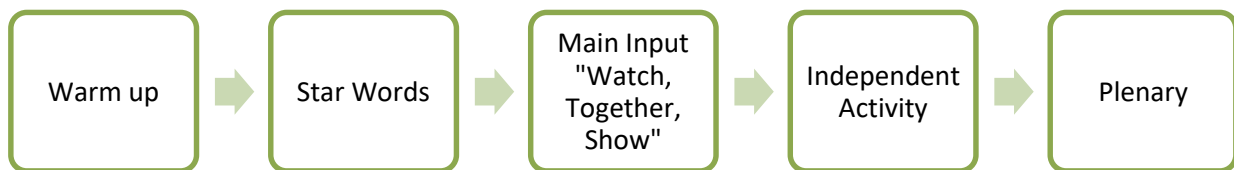
Teachers plan and teach following White Rose and the Maths Progression of Skills & Knowledge. Teachers to ensure that they follow the outlined structure of each lesson.

Teaching and Learning Requirements:

- All children should engage in a Mathematics lessons daily.
- Children will complete a Flashback 4 at the start of every lesson provided by White Rose to recap prior learning.
- Resources must be adapted to suit the needs of the class/cohort and individuals, to provide support and challenge as necessary.
- Star Words and vocabulary linked to the unit will be shared at the start of the lesson to ensure the children have a strong understanding of what they are learning as well as the language required for that unit of learning. This language will build as the unit progresses.
- All classes within the year group should be teaching the same unit at the same time (unless sharing of equipment is needed). The units should be taught in the order provided by White Rose and the Maths Progression of Skills & Knowledge.
- Resources for the unit should be researched and prepared for prior to the unit being taught by the teachers within that year group.

EYFS Teaching and Learning Requirements:

Maths lessons are focused adult-led sessions with direct teacher input which should be taught using White Rose planning and the appropriate resources outlined in the Maths Progressions in Calculations.



Teachers should ensure that during the main input they use a fluid model of concrete, pictorial and abstract (CPA) and support children to secure the skills taught through a 'I do, you do, we do' approach. Children should then complete an independent activity where they can **practically** display the skills that have been taught. The lesson should finish with a maths problem based on a real life context in order to deepen children's understanding as well as extend their reasoning skills.

In EYFS the provision will be designed to support children to consolidate their mathematical skills in order to use and apply their mathematical knowledge. When working in continuous provision, adults should observe, question pupils and pose problems for pupils to solve that specifically relate to the key learning from the adult-led session or from the unit that has been taught or from the skills outlined on the Mathematics Progression of Skills & Knowledge **See appendix 1.**

Year 1 Teaching and Learning Requirements:

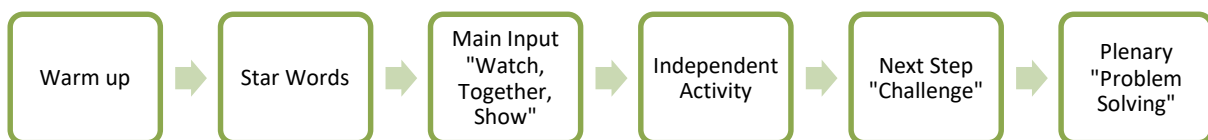
Mathematics in Year 1 builds upon stamina through progression towards the six-part lesson.

The lessons are focused adult-led sessions with direct teacher input which should be taught using White Rose planning **see appendix 3** and the appropriate resources outlined in the Maths Progressions in Calculations **see appendix 4.** Teachers provide 'Next Step' activities to challenge children and move their learning on.

Teachers should ensure that during the main input they use a fluid model of CPA and support children to secure the skills taught through an 'I do, you do, we do' approach. The 'Warm Up' part of the lesson should include a 'Flashback 4' activity to ensure children are recapping and consolidating prior knowledge in every lesson. These can be done as whole class activities in Autumn 1 and 2 moving onto independent activities from Spring onwards. Children should then complete an independent activity pitched at the age expected level where they can display the skills that have been taught through the adaptation of resources used and adult support. Children's learning should be developed with a 'Next Step'. Next steps can be directly taken from White Rose. For early finishers or those who need a further challenge, Teachers should use their judgement to give children a pre-planned 'pink pen question' see *Marking explained below* or use pre-made Idea for depth cards **see appendix 5**. The lesson should finish with a 'Plenary' which will be a maths problem based on a real life context in order to deepen children's understanding as well as extend their reasoning skills and provide an opportunity for assessment. These can be taken directly from White Rose.

Year 2 Teaching and Learning Requirements:

Mathematics in Year 2 follows the six-part lesson structure which enables children to learn new skills and transfer this into knowledge. The lessons are focused, adult-led sessions with direct teacher input which should be taught using White Rose planning **see appendix 3** and the appropriate resources outlined on the Maths Progressions in Calculations **see appendix 4**.



Teachers should ensure that during the main input they use a fluid model of CPA and support children to secure the skills taught through an 'I do, you do, we do' approach. The 'Warm Up' part of the lesson should include a 'Flashback 4' activity to ensure children are recapping and consolidating prior knowledge in every lesson. These should be completed independently and stuck into Maths exercise books. Children should then complete an independent activity pitched at the age expected level where they can display the skills that have been taught through adaptation of resources used and adult support. Children's learning should be developed with a 'Next Step' which are adapted to their academic level. Next steps can be directly taken from White Rose. For early finishers or those who need a further challenge, Teachers should use their judgement to give children a pre-planned 'pink pen question' see *Marking explained below* or use pre-made Idea for depth cards **see appendix 5**. The lesson should finish with a 'Plenary' which will be a maths problem based on a real life context in order to deepen children's understanding as well as extend their reasoning skills and provide assessment for learning opportunity. These can be taken directly from White Rose.

Maths Meetings

Maths Meetings are an addition to the daily Mathematics lesson. These sessions are to support the development of children's fluency through repetitive activities to embed key mathematical skills such as their fluency, confidence and mental arithmetic. Maths meetings should be used as an opportunity to pre-teach or consolidate understanding from the discrete Mathematics lessons taught previously.

Maths Meeting Learning Requirements:

- Maths Meetings should be taught in correspondence with the Mathematics Progression of Skills and Knowledge.
- Maths Meeting boards should be used as a working wall to display key vocabulary and sentence stems as well as strategies being taught in **see appendix 6**.
- Maths Meetings should be taught daily for 10 minutes.

Resources

All of the necessary resources to deliver the curriculum successfully are located in each classroom. An audit of resources is carried out once per year and any extra resources are ordered when necessary for teacher's to successfully deliver their curriculum. Teaching teams are responsible for informing the Mathematics Leader of any resources that they may need, and the Mathematics Leader is responsible for ordering these.

EYFS use Maths packs with resources to support their learning, **Year 1 and Year 2** have Maths boxes which include the full list of resources to ensure that lessons are fully prepared. **See appendix 7.**

Assessment

Planning

- Medium term planning should be taken directly from White Rose. Teachers should ensure that the skills are being covered across the term.
- Short term planning should be completed weekly using White Rose resources and should be adapted onto the Joydens Wood Infant School Planning template **see appendix 8**. Teachers should take into consideration misconceptions that have arisen and plan directly for these.
- Consolidation lessons have been outlined on the Maths Progression of Skills and Knowledge document **see appendix 1**, identifying when teachers should consolidate learning and for how long. Teachers are to use their professional judgement of when and what to teach depending on the need of the class or year group.

Formative

- Teachers carry out assessment for learning via the pupils' responses within their lessons and within any cross curricular opportunities that arise.
- Both verbal and age appropriate written feedback should be evident in the books to allow children to make progress.

Summative

- Teachers maintain a record of attainment and progress in Mathematics across the year; this is shared regularly with SLT and with parents at each parent consultation meeting. An entry is made each term determining whether children are working towards (WTS), working at expected (EXS) or working at greater depth (GDS) for the expected standard. Similarly, in EYFS, they will assess children as to whether they are working towards or expected by the end of EYFS.
- Children in EYFS will be assessed against the Early Learning Goals by the end of the year, their progress and attainment is tracked from their starting point throughout the year.
- Teachers track the progress of students using the NEST assessment document **see appendix 9**.
- Teachers in KS1 use end of block/ term assessments provided by White Rose to track progress during planned assessment weeks.
- At the end of KS1 children will sit their SATs tests which assist the final teacher assessment.

Moderation

- Teachers should participate in moderation across year groups and, when scheduled throughout the year, across NEST schools to share good practice as well as monitor progress.
- KS1 to moderate the children's Maths books, EYFS to monitor portfolios to ensure children are being challenged appropriately as well as tracking their next steps.

Recording

In EYFS children are encouraged to record work through games, role play and mathematical activities within play which will be uploaded to dojo on children's portfolios. Teachers should give a brief description of the children's work directly relating to the Maths Progression of Skills and provide children with a next step to move their learning on. Teachers should record and share any WOW moment learning of Maths (formal lessons) on dojo or via a class story post.

In Year 1 children will have a Mathematics Book whereby they will be encouraged to record Mathematical activities within the lesson. Activities/provision should reflect the Maths Curriculum to support them in making progress and recording their learning.

In Year 2 there should be Mathematics evident within their books and there should be a clear progression in both problem solving, and fluency.

Teachers should ensure that they are using the Maths Non-Negotiables for children's recording of information **see appendix 10**.

Cross Curriculum Links

Opportunities are provided to expand and extend children's knowledge and experience of maths through a range of contexts and subjects. An important element to Mathematics is the application to real life which enables pupils to assign purpose to their learning.



Vulnerable Learners

The curriculum has been designed to ensure that all learners are able to access teaching and learning. The curriculum is carefully adapted to suit the needs for all children within the school. Our school ensures that children's 'barriers to learning' are carefully considered and understood by teachers to ensure that these are taken into consideration in the planning and delivering of lessons.

- SEND and EAL pupils: resources and support should be planned to suit the needs of individual children. Children are encouraged to participate within the classroom setting however; teachers must plan suitable aids to ensure the child is accessing Maths. Personalised plans outline the key strategies used to support SEND children which teachers should be consistently implementing during their Maths lessons.
- Disadvantaged pupils: children that have external circumstances that affect their development. The school are expected to identify these contributing factors rapidly to ensure every child has the same opportunities to access their learning. This may involve discussing the child's home life with the DSL or FEL. Teachers should post weekly dojo posts outlining what has been covered so far that week in Maths to ensure that disadvantaged pupils and parents can remain up to date.
- In Year Admissions and Persistent absentees: children who have not attended our school previously or have poor attendance are at risk of not being able to access the learning. They may have significant gaps in their skills and knowledge that prevent them from being able to access specific skills/games. All children that are new/returned to school following a period of absence should be carefully monitored to ensure support is implemented without delay. Teachers should ensure that they are allowing time for interventions for persistent absentees. Teachers should post weekly dojo posts outlining what has been covered so far that week in Maths to ensure that persistent absentee pupils and parents can remain up to date.

Impact

The Role of Subject Leader

The role of the subject leader is to:

- To lead in the development of Mathematics within the school
- Support and offer advice to colleagues on issues related to the subject
- Monitor pupil learning in that subject area
- Provide efficient resources for that subject
- An understanding of developments within the subject both locally and nationally
- To monitor the planning, teaching and learning of mathematics within the school

It is the subject leader's responsibility to ensure that all new staff to Joydens Wood Infant School are introduced to the programme and given induction training to support their professional development. The subject lead should ensure new teachers have access to White Rose.

The subject leader will keep a portfolio which may include children's work, lesson observations, learning walks, book looks, recordings and attainment findings.

Appendix:

Appendix 1: Maths Progression of Skills and Knowledge including Scheme of Learning for EYFS, Year 1 and Year 2

Appendix 2: White Rose Website

Appendix 3: White Rose Planning example

Appendix 4: Mathematics Progression in Calculation

Appendix 5: Ideas for Depth cards

Appendix 6: Maths Meeting Display Board Example

Appendix 7: Maths Pack and Maths Box Resources list

Appendix 8: Joydens Wood Infant School Maths Planning template

Appendix 9: NEST Assessment documents

Appendix 10: Maths non-negotiables