

Lionwood Junior School – Mathematics Policy

This policy should be read in conjunction with the Calculation policy



Our Lionwood Curriculum

At the Lionwood Junior School we offer a creative curriculum which has the acquisition of Maths and English skills at its heart. These skills are embedded in a wider curriculum which is balanced and broadly based and which promotes the spiritual, moral, cultural, mental and physical development of all pupils at the school and of society, and prepares pupils at the school for the opportunities, responsibilities and experiences of later life.

Our curriculum challenges children to take responsibility for their own learning. It challenges our teachers to listen effectively to the ideas and needs of the children to inform planning. Our curriculum requires that all involved think, reflect, analyse, hypothesise, consolidate, question, imagine and create.

Our curriculum provides pupils with an introduction to the essential knowledge that they need to be educated citizens. It introduces pupils to the best that has been thought and said; and helps engender an appreciation of human creativity and achievement.

Within our curriculum there is time and space for enriching experiences. The National Curriculum provides an outline of core knowledge around which teachers can develop exciting and stimulating lessons to promote the development of pupils' knowledge, understanding and skills as part of the wider school curriculum.

We plan our provision taking into account the specifications of the National Curriculum 2014 and the Lionwood Curriculum Map and Progression of Skills and Knowledge for each subject. We adapt our provision through studying current research into best educational practice, local and national factors that affect our children, the individual needs and interests of each group of children and the specialist skills of teachers and support staff.

All subject teaching benefits from:

- High aspirations for each pupil's progress through school and into their future, regardless of need or ability.
- The promotion of self-respect and regard and care for all members of the school community and the wider world.
- Personalised learning approaches that capitalise on individual strengths help individuals to overcome barriers to learning and to reach their full potential.
- An effective positive behaviour policy that supports an individual's love of learning.
- The use of a range of teaching strategies including whole class, small group and individual work.
- The use a range of information and Communication Technology to support and enhance learning.
- The use of Visual, Auditory and Kinaesthetic approaches to learning and teaching indoors and outdoors.
- Thorough assessment, record-keeping, analysis of tracking data and targets-setting.
- A range of activities e.g. writing, investigations, art, model-making, discussion, film, field-work and drama. Evidence of work is kept in books.
- Effective feedback which is mainly verbal, and is supported by a simple marking system.
- Effectively differentiated activities that take in to account the wide range of abilities and experience of all children including those with SEND, and English as an Additional Language and those who are Able Gifted and Talented
- The knowledge and celebration of the diverse nature of our school, community and wider world reflected in equality of provision for all.
- Provision of enriching activities including educational visits, after-school clubs and cultural events.
- Meaningful relationships with families that support a child's progress through school and beyond.

Each subject has its own specific skills and knowledge and these are outlined in the following section

Key Principles that Underpin the Teaching of Mathematics

- To learn and make progress in mathematics, children need to be provided with a rich mixture of language, representations and experiences to enable them to form their own relational understanding of the subject.
- If children are to develop a relational understanding of the mathematics that they are using in lessons, then they need to have a series of internal representations that they can draw on to help them construct their own conceptual understanding of the concept. This conceptual understanding is made by the forming of many connections between mental representations which in turn are made when the child reasons about the resource that they are using. It is important to remember that there isn't any maths in a resource; the maths is brought to the resource by the teacher and the child interacting with it.
- Maths is a subject that can be made sense of, not a series of procedures that is to be memorised.

The Organisation of Planning, Teaching and Assessment of Mathematics

- All planning is informed by the 'Progression of Understanding and Skills in Mathematics' document.
- Children in KS2 have a daily maths lesson that is based on a programme of study for a Mastery Mathematics Curriculum. This has been adapted from materials provided by the Mathematics Mastery organisation. Staff augment the original document to suit the needs of the children.
- A continual assessment of children's work is made by continually assessing their understanding and application of concepts. Staff use cold and hot tasks to identify gaps and misconceptions in long memory. This informs future planning.
- Children in Year 6 sit the KS2 Curriculum Tests in the summer term. In addition children in years 3, 4 and 5 sit NFER tests (as appropriate) which inform the teachers' assessments. Termly Pupil Impact Meetings ensure that children's progress is monitored and interventions put in place as necessary.
- Children are encouraged to apply their learning from maths lessons in different contexts and situations.
- ICT is used where possible to support the children's learning and gives opportunities for children to what they have learned previously.

Models and Images to Support Learning in Mathematics

- Every classroom has a visible number line and at least one display (Working Wall) that the children can interact with on a daily basis.
- The five core models and images that are used in lessons are: cubes, number lines (or tracks), bead strings, Numicon or Cuisenaire Rods, 1 to 100 squares and digit cards or number fans. Teachers start their lessons from a concept to be learned and use a combination of models and images, language and symbols to help the children to build their own understanding of the concept. (Following the Concrete-Pictorial-Abstract model.) Teachers are encouraged to develop their own resources and to share them (and best practice) with colleagues to enable all of the children to achieve their potential.
- The Subject Leader for Mathematics organises the supply and provision of these resources through the school. This is regularly audited to ensure value for money and appropriateness to the needs of the children.

This policy should be reviewed no later than September 2020

Mathematics Subject Leader: Hannah Hunt

Head Teacher: Maria Cornish

Chair of Trustees: Sharon Forder

Date: 10th Sept 2019

Date: 10th Sept 2019

Date: 12th Sept 2019