Springfield Infant School and Nursery Maths Policy

Springfield is a Rights Respecting School.
Article 3- The best interests of the child must be a top priority in all actions concerning children.
Article 28 – Every child has the right to an education.

Rationale

Springfield Infant School is a Rights Respecting School and we embrace the ethos and beliefs of the United Nations Convention on the Rights of the Child. Every child has the right to an education and children should have the freedom of expression.

Mathematics is a tool for life. To function in society, we all need to be able to communicate mathematically. We must ensure that the children in our care leave Springfield with high standards of numeracy as well as literacy.

Aims

At Springfield we aim to inspire all children to have a love of mathematics and to develop Number Sense*. We also specifically aim to:

- Establish a culture of high achievement for all.
- Provide a challenging and engaging curriculum for all.
- Provide rigorous assessment and tracking of the progress of pupils.
- Provide high quality teaching and learning classroom experiences.
- Provide high quality regular teaching development at the whole school and at an individual level.

** Number Sense – flexibility with numbers, able to operate with numbers, spot errors, have an intuitive feeling for maths and to be able to problem solve.*

Our objectives are to:

- Develop a positive approach to the learning of mathematics by providing challenge, personal attainment and a sense of achievement.

Article 29 – Education must develop every child's personality, talents and abilities to the full.

- Create confident children who are able to express, question and discuss ideas when undertaking activities.

- Develop mathematical fluency and deeper understanding through 'concrete-pictorial-abstract' teaching strategies.
- Develop skills of mental arithmetic in order to support and enhance mental calculations, check answers and foster an understanding of the relationships in mathematics.
- Use practical and investigative approaches where possible in order to strengthen understanding of pattern and relationships.
- Use mathematics to explore everyday situations and to communicate with others.
- Develop mathematical vocabulary and the use of equipment appropriately.
- Involve and inform parents and carers of strategies to help their children. **Article 18 – Both parents share responsibility for bringing up their child and should always consider what is best for the child.**

The Curriculum

At Springfield we believe that through the mathematics curriculum children should develop knowledge and understanding of mathematical skills and 8 key mathematical habits.

The 8 key mathematical habits include pattern 'sniffing', inventing, visualising, experimenting, describing, tinkering, conjecturing and generalising.
Mathematics is a core subject in the National Curriculum, and we use the National Curriculum as the basis for implementing the statutory requirements of the Programme of Study for mathematics. It provides detailed information of what skills and strategies need to be taught together with details of the key objectives for each year.
Medium term plans, created by the White Rose Hub and the locality schools from the National Curriculum, give details of the main teaching objectives for each term or half term. They ensure an appropriate balance and distribution of work across each term.
Weekly plans give the specific learning objectives for each lesson and give details of how the lesson will be taught, including information about differentiation, use of ICT, success criteria and resourcing.
Plans are adapted by class teachers to meet the needs of the children in their class.

Cross Curricular Links

Mathematics is taught as a discrete subject to ensure that a full range of skills are taught and that there are sufficient opportunities for problem solving and investigation. However, cross curricular links bring maths to life and children learn maths skills best at the point when they are needed, in meaningful, relevant contexts.
For example patterning skills and knowledge of symmetry is used in art, timelines are drawn in history, measuring is used in DT and almost every scientific investigation or

experiment is likely to require one or more of the mathematical skills of classifying, counting, measuring, calculating, estimating and recording in tables and graphs.

Teaching and Learning

The curriculum is delivered by class teachers. In all classes learning is differentiated in order to give appropriate levels of work to each ability group. Problem solving activities are planned to be 'low threshold, high ceiling' ensuring access and progression for all. Where appropriate, groups or individual children are supported by Teaching Assistants and Learning Support Assistants, sometimes in the classroom, sometimes in the Shared Area.

The more able children are taught in the class and stretched through differentiated group work and extra challenge. When working with the whole class, teachers will target questions towards the more able to further develop their thinking. Differentiation is based upon levels in independency – greater independence = greater mastery.

Monitoring Progress and Attainment

Assessment for learning and assessment of learning take place in order to assess what has been learned and to inform the next stage of planning. Assessment is most effective when:

- Teachers are clear about what children know, understand and can do.
- Children know what they are learning, what they have achieved and how they can improve.
- Children are provided with opportunities to reflect and talk about their learning and progress against targets.
- Teachers use a range of assessment methods – observing, asking questions, listening, assessing pieces of work and testing.
- Teachers use the results of assessment to decide what to do next.
- All pupils are set ambitious targets and are supported in striving towards them.

The Essex Primary Tracker and the Essex EYFS Tracker are used to record electronically children's progress at Springfield. Assessments are made each half term and entered into the Tracker. This allows teachers and managers to note regularly which children are not making expected progress. An analysis is made to inform planning and interventions.

At Springfield we are continually assessing our children. We conduct half termly investigation days to help inform assessment throughout the school. Investigations are used in all classes to assess children and inform future teaching, planning and target setting for individuals. The outcome of these investigations is scrutinized and moderated at Staff Meetings to ensure consistency. At Springfield we also use The National Curriculum objectives as formative assessment. This evidence is also moderated to ensure consistency both in school and with local schools in our Family Group.

Intervention

Springfield's high priority given to maths is reflected in extra provision provided for all children who do not make expected progress. This includes interventions in class and a range of additional interventions over and above what the class teacher plans for e.g.

- 1:1 and small groups
- Basic Skills support
- Every Child Counts and 1st Class @ Number

Article 29 – Education must develop every child's personality, talents and abilities to the full.

Children with Special Educational Needs have EHCPs or ILP's that take into account the targets set for individual children and teachers keep these objectives in mind when planning work. Teaching assistants provide further support for groups or individual children and work collaboratively with the class teacher. Teachers' plans not only provide activities to support children who find mathematics challenging but also appropriate challenges for children who are high achievers in mathematics. Children with EAL are also supported in a variety of ways with particular reference to mathematical vocabulary development.

Home learning

At Springfield we aim to provide parents and carers with opportunities to support their children's learning at home. Homework activities are occasionally sent home to reinforce and extend concepts taught in

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Parents are considered as partners in their child's learning and receive regular communications to support their children's mathematics skills. These include:

- Regular parent's evenings which give them verbal and written information on their child's progress and their maths targets for the future.
- Termly curriculum newsletters informing the parents on the areas of the maths curriculum that are being covered.
- A mid- year report which outlines progress and attainment and an end of year statement of attainment.
- Meetings to inform YR parents on how we teach mathematics and how they can help.
- Maths leaflets with activities for each year group that can be done at home.
- Providing links to relevant Maths websites through the school website.
- Invitations to Maths Days, enrichment activities and to lessons.

Policy Review

The maths curriculum team is responsible for monitoring and keeping this policy up to date. Part of their role is to keep up to date with research, good practice, and advice from the LA and department for education and changes to statutory requirements.

Spring 2017 - To be reviewed Spring 2018