



Mathematics and Numeracy for Life Policy



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Mathematics is much more than numbers, shape and measures at Ernest Cookson School. We focus our curriculum on positive interaction with maths and learning through play. Therefore much of our work that relates to mathematics supports Numeracy for Life.

Children at Ernest Cookson have Social Emotional and Mental health Disorders that act as a barrier to their learning and have a wide spectrum of needs. Some children have learning needs ranging from those who are fully dependent upon adults to mediate experiences; to those who are able to make free choices, explore, play and problem solve with general support. The school caters for 58 children from aged 6-11 and also runs an assessment centre for a further 24 children.

All children, regardless of race, religion, or disability, will be provided with equal opportunities to develop their social awareness, emotional responses, intentions and communicative abilities. Pupils will have access to a broad and balanced and relevant curriculum that meets their individual needs.

Rationale

Mathematics is more than counting and calculation, it is a tool we use for exploring investigating and understanding and enjoying the world. The skills of Mathematics include knowing and understanding about objects, groups and sequences, making comparisons, identifying differences, investigating relationships and establishing connections.

Mathematics is an important element within all other subjects across the curriculum, and is vital in everyday social, practical and cultural life.

- It supports practical activities and communication involving quantities, space and time.
- It encourages logical reasoning and the ability to think in abstract ways.



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- It is part of our aesthetic world through its connections to patterns, sequences of sound, space and shape.

At the earliest stages of development, Mathematics has sensory roots as children strive to make sense of experiences and sensations. Through sensory exploration they learn to respond to problem situations flexibly, and move from random to trial and improvement responses. Children build on their explorations learning, to anticipate and predict. Increasingly children will plan and reflect, they will:

- remember and develop fundamental skills such as counting
- develop ideas about quantity, shape and space
- come to recognise and evaluate alternative solutions.

In these ways mathematical skills and understanding build on the earliest perceptual and cognitive learning. It is from these roots that we work to enable our children to progress towards Mathematics that is functionally useful to them, or where appropriate to their needs and development.

Aims of this Policy are to:

- support children in their life-long learning journey in mathematics;
- help children to be aware of and build on their strengths in all areas of mathematics and numeracy for life;
- ensure that planning and teaching reflects the individual needs of the children on a daily basis;
- support development of the most appropriate curriculum for each cohort and child;
- consider to what extent teaching and learning objectives have been met to inform any adjustments that may be required for individual children;
- provide timely and detailed information for parents/carers, governors, senior leaders and outside agencies on the progress of all learners.

We also aim to engender a fascination and enjoyment of the subject, giving all children the confidence to use their skills, knowledge and understanding practically and with increasing fluency.



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Objectives

Our objectives are layered to be inclusive - we seek to enable:

All children to:

- build on their awareness of events and actions to recognise changes in pattern, quantity and space, in their immediate environment and in the wider world;
- use their developing awareness to anticipate and predict changes;
- use their awareness and developing understanding of pattern and space, shape and number, to develop problem solving skills that contribute to making choices, taking decisions and gaining control over their immediate environment.

Some children to:

- develop mathematical skills that facilitate practical and social; functioning, working with and managing quantities, space and time
- develop understanding which allows them to compare and estimate, communicate, visualise, and use some representations.

A few children to:

- extend visualisation and representation skills towards thinking that can be applied in abstract as well as concrete contexts;
- begin to think about the strategies they use and explain them to others;
- develop a powerful set of thinking tools to help them increase their knowledge and understanding of the world and learn effectively in different subjects across the curriculum.

Planning

Planning for mathematics involves the following:

- A yearly maths scheme of work for every class identifies the main strands and themes to be covered. It offers an overview of breadth and balance across the curriculum. It ensures continuity and progression, whilst balancing the children's needs.
- Teachers will outline medium term plans using in-house planning sheets.



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- All children working at P4 or above will have specific Numeracy targets, those below P4 (PMLD learners) will access mathematics through sensory experiences.
- Teachers will allow for differentiation within their group in their short term planning.
- They will show links to Independent Living Skills, educational visits, use of ICT, cross curricular themes and play based learning opportunities.

Planning

Ernest Cookson has 3 tiers of planning as outlined below:

Whole School Rolling Programme outlining the topics for each term, cohort and key stage. It ensures balance, breadth and depth appropriate to the cohort over a 4 year period.

Medium Term Planning sets out the framework for the teaching and learning experiences for mathematics and numeracy for life and contains:

- Targets and learning outcomes - clear details about what the children will know, be able to do (skills) and understand.
- Suggested teaching strategies - teaching and learning activities to be delivered to achieve objectives set.
- Personalisation - various levels of support, guidance and resources shared with all staff in the classroom and beyond.
- Assessment opportunities - in a range of environments and with a range of adults and stimuli.

Short Term Planning includes:

- Content of daily/weekly teaching and learning sessions;
- Individual targets for each child relating to the mathematical activity/experience;
- Teacher assessment opportunities for all children;
- Details of resources to be used/accessed to support children in developing their knowledge and skills in mathematics;
- Role of the support staff to support mathematics;
- Specific instruction to allow all class team members to deliver maths planning under the supervision of the class teacher.



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Curriculum

Teachers at Ernest Cookson follow the National Curriculum. Where appropriate, teachers will also use Early Years and Foundation Stage materials for KS1 and differentiate accordingly at KS2.

Progression

The focus of teaching Mathematics at the Early Years foundation stage.

Children will be encouraged to engage in exploration and investigation that will stimulate the development of sensory, physical, skills and knowledge relating to

- Handling and using things
- Operating in and understanding their environment
- Participate in experiences that involve changes, sequences, practical and social counting.
- Learning to learn
- Developing thinking, relating to practical experiences, social, communication and creative activities.

The focus of teaching Mathematics at Key Stage 1

Will include extending the learning experiences of EYFS.

May be on extending sensory experiences, social experiences, developing Early Learning experiences by helping pupils understand and communicate about their exploration of quantities, space and time.

The focus of teaching Mathematics at Key Stage 2

Will be on extending sensory experiences, social experiences and learning experiences of previous key stages. This will include developing 'learning to learn skills' and applying their developing knowledge to their activities by using early mathematical skills in practical contexts.

Parental Involvement

Parents have the opportunity to discuss their child's progress and achievement at annual review meetings and parent afternoons. They also receive an annual



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report and can discuss any aspect of their child's education with their teacher if they wish to at any time during the school year.

Assessment Approaches

Children at Ernest Cookson School have a wide range of abilities and learning styles and our approaches to assessment reflects this.

Techniques employed include:

- observational assessment - where a member of staff who knows the child well observes responses to learning activities and unstructured situations; assessing the level of engagement and interaction;
- questioning - which enables the teacher to make a judgement about child's degree of understanding;
- PIVATS assessment - which assesses against National Curriculum Performance Indicators for Value Added Targets
- formal assessment - where the child is asked to complete set tasks which indicate his or her knowledge or approach to learning;
- review of written work;
- reviewing other evidence, such as observations, photos/videos collected over a period of time;
- records of frequency and intensity of behaviour;
- Standardised scores from KS1 SATS at the end of Year 1 or if missed at the end of Year 2 and KS2 SATS in year 6
- Standardised progress tests are also administered online at the start of every school year in English and Maths

Monitoring and Evaluation

The Mathematics co-ordinator will monitor planning, lead staff meetings, observe lessons and collect evidence of Mathematics activities. Progress in Mathematics will be reported to the Senior Management Team, Governors, Local Authority and Ofsted when requested.

This policy was written by Geraldine James (Inclusion and SEND Coordinator/Assistant Head teacher) and will be reviewed bi-annually by all parties involved.

Review date: September 2017