Fairfield Primary School
Maths Policy

Aims

The aims of Fairfield School in teaching mathematics are as follows:

To encourage all children to see Maths as a subject that they enjoy and can achieve in.

To show that Maths is an essential part of everyday life and to relate the topics the children are learning to real life whenever possible. This will help to ensure that the children see the relevance of what they are learning.

To encourage the children to develop their own mental strategies for solving problems and to be confident in this area. Rapid recall of number bonds and tables facts is an essential tool for many mathematical tasks and we aim for our children to be able to achieve this.

To show that communication is an important element of mathematical understanding. Children will be given as many opportunities as possible to describe, predict and explain using mathematical language and ideas.

To ensure that Maths is presented in as many different ways as possible including practical contexts.

The children should have access to practical equipment to develop and strengthen their mathematical understanding and be given a variety of investigative problem solving activities across all the age ranges and ability levels.

Whenever possible links will be made with other subjects to encourage awareness of how mathematics pervades all elements of our lives and to prevent it being viewed in isolation

Teaching Mathematics

1. Teaching time

All children will have access to a daily Mathematics lesson. This lesson may vary in length but will usually last for 45-50 minutes in key stage one and 50-60 minutes at key stage two.

Children in Foundation stage will have daily maths sessions which will last for up to 30 minutes by the summer term.

Maths will also be used wherever possible in other subjects so that the children can develop and apply their mathematical skills, eg the use of timelines in history and measuring in science.

2. Class Organisation

During the daily maths lesson there will be a mixture of whole class teaching, group work and independent practise.

A typical lesson in years 1-5 will be structured like this:

- Oral work (5 – 10 minutes)
  This will involve the whole class in rehearsing and develop mental skills and strategies.
- Main Teaching Activity (30 – 40 minutes)
  This will be a mixture of whole class, group and individual work.
- Plenary (5 – 10 minutes)
  This will involve the whole class in summarising the lesson, identifying problems that have arisen or perhaps setting a problem extending what has been taught.

On occasions lessons may be structured differently to cater for different topics and approaches.

3. Written Methods

All staff follow the guidelines issued by Leicestershire LEA Numeracy Team on written methods for calculations. This ensures consistency and progression throughout the school and a smooth transition to secondary school.

4. Homework

The daily maths lesson will be extended by out of school activities or homework. This may take a variety of forms; a mental task such as learning number bonds or tables facts, further practice of a skill or method taught in a lesson or a practical activity that the children can carry out at home. These activities will be relevant to and drawn from the work the children have done in school.

5. Links between Maths and other subjects

As already stated in this document, links will be made wherever possible to other subjects in the curriculum so that children get an idea of how maths can contribute to many areas and ensure that it is not seen in isolation.

School and Class Organisation

All pupils are to have access to the Maths Curriculum regardless of ability, race, gender, cultural background or any physical or sensory disability in line with the DDA 2005.

In the case of physical or sensory disability, the school will endeavour to provide specialist apparatus or computer software to enable every child to have full access.

The teaching staff will consult the SENCO whenever they have concerns about a child's progress in Maths. The SENCO may decide to carry out specific assessments and if necessary place the child on the SEN register or consult outside agencies for further advice and support.

As teachers it is important to realise that a child with a difficulty in reading may be able in maths and ensure that difficulties in reading do not hinder mathematical progress.

It is important to ensure that resources allow all children to show their mathematical knowledge and ability and that those children with reading or recording difficulties are not prejudiced.

How we cater for children of differing abilities

At present the children in the foundation stage and year one are taught in whole classes. Less and more able children are identified and supported or extended as appropriate.

In years 2-5 the children are taught in ability sets. This enables the class teacher to target their teaching towards specific groups of children. In the higher ability sets more able children are identified and given more challenging work. In the lower ability sets less able children may be supported by a classroom assistant.

Children with Special Educational Needs

All children benefit from being included in the oral elements of a lesson and watching and listening to other children explain their methods and reasoning and demonstrating their methods.

Where pupils have severe difficulties however, they may follow an Individual Education Plan (IEP) and may need to work with a teaching assistant or support teacher for most of their maths work.

Resources such as Springboard and Wave 3 are available and staff will use these as appropriate for the relevant pupils.

Foundation Stage

In the foundation stage the numeracy framework is followed but this is supplemented by the QCA Curriculum guidance for the foundation stage and the Early Learning Profiles – Stepping Stones and Early Learning Goals.

Mathematical understanding is developed through stories, songs, games, imaginative play as well as more formal teaching methods. Mathematical vocabulary is modelled during the daily routines and throughout adult led activities. There is an effective balance of adult led learning experiences and opportunities for the children to initiate and develop their own mathematical learning.

Opportunities are provided for the children to revisit and consolidate their learning in a variety of contexts.

Mathematics is embedded within and supports all the 6 areas of learning in the foundation stage.

These areas of learning are:

Personal, social and emotional development

Communication, language and literacy

Mathematical development

Knowledge and understanding of the world

Physical development

Creative development

The children learn in a variety of contexts which includes using the outdoor environment for teaching and learning mathematics whenever possible.

Information and Communication Technology (ICT)

Wherever possible ICT will be used to support teaching and to motivate and improve children's learning.

ICT is fully integrated into medium and short term planning.

ICT will include the use of computers, calculators and floor turtles (Roamer or Bee bots).

The use of computers will often involve the teacher in using a specific teaching aid such as the Dfes produced ITPs. However the children should also have the opportunity to use the computer as often as possible to practise their individual skills and improve their ICT capability.

Calculators should be used by the children from year 1 onwards as a tool for checking their work and letting them work with more complex calculations. From Year 4 the use of the calculator and its various functions should be specifically taught as part of the maths curriculum.

Resources

The use and management of resources are an important element in effective maths teaching. The Maths coordinator is responsible for ordering and maintaining resources throughout the school in liaison with individual class teachers.

Resources are mainly kept in year group bases with some larger items being shared across year groups

Fairfield does not follow a specific maths scheme but in the junior department there are sets of Cambridge and Letts books that can be used for specific activities.

An increasing amount of maths resources are ICT based, either purchased software or web-based such as Education City.

Assessment

Assessment will take place at three levels:

- short-term
- medium-term
- long-term

These assessments will be used to inform teaching and future planning.

Short-term assessments

This mainly involves informal assessment during every lesson to check children's understanding.

Medium-term assessments

There should be an opportunity timetabled every half term to assess the children's understanding of the objectives covered. This should relate to the children's own targets (see below)

Long-term assessments

These are more formal assessments which take place twice a year to review and record pupil's progress. These will be made through:

- Foundation and Year One Assessments (Sept and June)
- National Key Stage One Tests for Year 2 (May)
- Optional QCA tests for years 3-5 (May)

Results from these are analysed by the Head Teacher, Maths Coordinator and SENCO to set targets for the forthcoming year.

In addition to this an assessed piece of number work is completed by every child in January and placed in their Record of Achievement book. The assessed level is entered onto the cohort sheet and used to track the children's progress through their time at Fairfield School.

<u>Targets</u>

All teachers use target setting to track children's progress, inform their teaching and raise standards.

In the foundation stage the children are working towards the Early Learning Goals.

In years 1-5 each child has a set of targets relating to the objectives being taught during that half term. These may be individual or group targets. Sets of targets will be kept in the child's book and should be referred to frequently. They will be reviewed and updated after any short term or medium assessment. Involving children in the review and assessment of their own progress is a powerful motivating tool.

SEN children will have specific targets relating to their IEPs.

<u>Planning, Developing and Monitoring the Maths Curriculum</u>

The School Development Plan

The plan for developing the maths curriculum and managing changes is outlined in the SDP. This is updated annually by the Head teacher after consultation with teaching staff and the governing body.

Curriculum Planning

Staff should produce long term and medium term plans which are monitored by the Head Teacher and Coordinator. They should produce short term plans which may be seen by the Head and Coordinator.

The Coordinator and the SENCO will provide support for planning whenever this is necessary.

Work Scrutiny

Each term every class/group teacher will provide 3 sets of maths workbooks for scrutiny. These will include work from each level of ability within that group. The work scrutiny will be undertaken by the Head teacher, the Coordinator, the SENCO and on occasion, the numeracy governor, and feedback resulting from this will be given back to staff.

Policy	*Maths*
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