

**LISTER
INFANT SCHOOL**

**NUMERACY
POLICY**

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Statement

This document is a statement of aims, principles and strategies for the teaching and learning of numeracy at Lister Infant School.

The policy was developed during the autumn of 2004 through a process of consultation with teaching staff. It will be reviewed informally at staff meetings annually. The policy will be revised formally and completely in 2007.

Aims

We aim to promote maths as a worthwhile, enjoyable experience in itself. Positive attitudes are nurtured, through using mathematical language in the formulation and expression of ideas. Pupils will have the experience of applying the mathematical skills and concepts learned, in school and in the wider context. We aim to maintain a variety of teaching styles which include exposition by the teacher, discussion between teacher and pupils, and between pupils themselves, and appropriate practical work, enabling each child to achieve his/her potential.

As in all subjects it must be realised that the learning and development of a pupil is a partnership between parents, teachers and the pupil, and that our aims in teaching numeracy are that all children will:

- Have equal access to it, enjoy and have an interest in the subject and study it with confidence whilst gaining a sense of achievement.
- Achieve a high standard in numeracy and a range of other mathematical skills.
- Apply these skills with confidence and understanding when solving problems.
- Develop personal qualities such as politeness, perseverance, initiative, empathy, self confidence and independence in group and independent work.

Principles of the Teaching and Learning of Numeracy

Numeracy is important because:

1. it is widely used in society, both in everyday situations and in the work place.
2. it can be used to represent or communicate ideas, to predict, to explain and to verify.
3. it is interesting and enjoyable, providing intellectual challenge and aesthetic pleasure.

Numeracy is a core subject in the National Curriculum. The fundamental skills, knowledge and concepts of the subject are categorised into three attainment targets at Key Stage One:

1. Using and applying mathematics
2. Number and Algebra

3. Shape, Space and Measures.

Numeracy is taught daily. The National Numeracy Strategy was introduced in Autumn 1999 and Numeracy is now taught using this framework. In September 2000 the Early learning goals were introduced to the Foundation Stage (Nursery and Reception).

Foundation Stage

The development of mathematical thought is an important area of experience for children in the Early Years. Learning mathematics should be primarily first-hand experiential and active, bearing in mind the requirements of the National Curriculum Foundation Stage. Play and talk are essential to the learning process. During Foundation Stage the daily numeracy lesson is spread out over the course of the day until the summer term when a full lesson is completed in an hour to prepare the children for KS1.

Strategies for the Teaching of Numeracy.

As well as numeracy being taught as a subject daily, other curriculum areas will often include mathematical activities.

Suggestions for cross-curricular topics with a high mathematical profile:
Games, ourselves, our school, celebrations, food/cooking, growing things and maps.

Numeracy contributes to many subjects and it is important the children are given opportunities to apply and use Mathematics in real contexts.

"It is important that time is found in other subjects for pupils to develop their numeracy skills, e.g. there should be regular, carefully planned opportunities for measuring in science and technology, for the consideration of properties of shape and geometric patterns in technology and art, and for the collection and presentation of data in history and geography." (NNS)

Numeracy is taught for 45 minutes per day. It is taught according to the instructions laid down in the National Numeracy Strategy. A typical lesson is structured like this:

1. **Oral and Mental Starter** (5-10 mins) Whole class work to rehearse, sharpen and develop oral and mental skills.
2. **Main Teaching Activity** (30 mins) this part of the lesson provides time for a) Introducing a new topic, consolidating work or extending it.

- a. Developing vocabulary, using correct notation and terms and learning new ones.
- b. Using and applying concepts and skills.

Children work as whole class, in groups, in pairs or as individuals.

3. **Plenary** (5-10 mins) this is to conclude the lesson with the whole class. It can be used to sort out misconceptions and identify progress, to summarise key facts and ideas and what to remember, to make links with other work and to discuss the next steps.

There is no specialist teaching in numeracy. It is taught by the class teacher. Classroom assistants will work with groups offering support in practical activities/ worksheets.

A range of schemes of works and worksheets are used in Numeracy to ensure full coverage of the National Numeracy Strategy.

Pupils with additional needs have support from teacher or support staff within the numeracy lesson.

Strategies for ensuring progress and continuity.

Planning

Planning in numeracy is a process in which all teachers are involved.

For long term planning, the yearly teaching programmes and key objectives provided in the Framework are used.

The planning grids given are used for medium term planning. Teachers work together in year groups to plan in detail the areas to be covered. This is handed to the co-ordinator each half term.

Short term planning is done weekly. Each teacher breaks down the week's work into daily lessons on a planning sheet. (see attached). The teacher evaluates the weekly plan to inform future planning and at the end of the half term fills in a subject evaluation sheet which is then handed to the co-ordinator.

Lessons are monitored with a specific focus on rotation. Feedback given to the teachers and Headteacher and general observations made at a staff meeting.

The Role of the Numeracy Co-ordinator

Is to :

1. take the lead in policy development and the production of schemes of work designed to ensure progression and continuity in numeracy throughout the school.
2. support colleagues wherever necessary.
3. monitor coverage and teaching and advise the Headteacher on action needed, if any.
4. keep up to date with developments in numeracy education and disseminate information to colleagues as appropriate.
5. order math's equipment
6. where appropriate, communicate the context of the numeracy document to colleagues, governors and parents and explain how it is delivered throughout the school..
7. Deliver model lessons to support and develop staff.

Feedback to pupils about their own progress in Numeracy.

Feedback to pupils about their own progress in numeracy is achieved through the marking of work and discussion.

Effective marking:

- aims to be encouraging and supportive
- includes ticks and written comments with errors clearly indicated.
- is often done while a task is being carried out through discussion between child and teacher.
- Can be done in the plenary.

Formative Assessment

Formative assessment is used to guide the progress of individual pupils in numeracy. It involves identifying each child's progress, determining what each child has learned and what therefore should be the next stage in his/her learning. Formative assessment is carried out informally by teachers through the course of their teaching but also as short tests, that are given half termly. These tests can be given, where the teacher asks questions orally or where pupils write the answer.

The Headteacher tracks children's mathematical progress throughout Foundation and Key Stage 1.

Recording and Reporting

Records of progress for each child include:

1. Abacus worksheets
2. Individual math's books
3. Individual Assessment booklets.

Reporting to parents

Open nights are held twice a year during the autumn and spring terms. Written reports are sent to parents in the summer term.

Formal summative assessment is carried out at the end of the key stage through the use of end of key stage assessment and teacher assessment.

Targets

Children from Reception to year 2 are set individual Numeracy targets termly. These targets are set by the teacher and are set according to where the child is at, in their mathematical progress. The targets are placed on the inside cover of their numeracy books and the children are made aware of them. A child can achieve their target during everyday work or by teacher assessment.

Numeracy and ICT

Teachers should look for opportunities to use ICT as a tool to enable children to support, extend, organise and present work appropriately. It can be used in numeracy for:

1. Data handling
2. Modelling
3. Practice of basic skills in a game context
4. Problem solving and investigational activities

Each class will have a weekly lesson in the computer suite using the smartboard to explain concepts and activities. Also each classroom has three computers which allows a group to work on the computer during the main part of the lesson.

Health and Safety Issues in Numeracy

It is the responsibility of teachers to make their pupils aware of health and safety within their classroom and around the school. Accessibility and storage of mathematical equipment should have safety in mind. Pupils should be encouraged to take responsibility for the care and correct usage of equipment. There should be close supervision by an adult of all cooking activities.

Equality of Opportunity

When planning and delivering the numeracy curriculum, teachers should endeavour to ensure that there is equality of opportunity for all pupils, whatever their race, creed or gender. At Lister Infant School, we believe that all children can communicate best in an environment of mutual tolerance, understanding and trust, where they are encouraged to listen to each other, learning to value what everyone has to say.

Display

A mathematical display can play an important role in a classroom and can fulfill a variety of functions. It communicates a sense of what is valued in a classroom. It can show that numeracy is important and validates the work that the children do. It can be a way of stimulating and motivating children to participate in mathematical activities and investigations.

Resources

Each classroom has a set of Math's equipment and resources for the age group.

Central Resources

Shared equipment and resources are kept centrally in the Resource Room. The library has a selection of books pertaining to different areas of Numeracy.

Homework

Children in years 1 and 2 are given numeracy homework once a week. The amount of homework set is about 10/15 minutes. Not all homework is written work, which needs marking. We encourage teachers to set work, which makes use of the home context.

Children in Reception have numeracy homework in the form of a numeracy storysack.

Children with Additional Educational Needs

Wherever possible we aim to fully include SEN pupils in the daily numeracy lesson so that they benefit from the emphasis on oral and mental work and by listening and participating with other children in demonstrating and explaining their methods.

Where necessary teachers, will, in consultation with the SENCO, draw up an Individual Education Plan for a child.

When planning teachers will try to address the child's needs through simplified or modified tasks or the use of support staff.

Where possible more able pupils will be taught in their own class and stretched through differentiated group work and extra challenges. When working with the whole class, teachers will direct some questions towards the more able to maintain their involvement.

Numeracy Intervention

This is a new programme introduced into schools in Spring 2004. It takes place in the Spring term of Year One. The programme has been very successful in raising children's basic numeracy skills. It involves six children working with a classroom assistant for twenty minutes, three times a week. The programme pinpoints children's area of weakness during an assessment test which is directed by the numeracy co-ordinator. The children then complete the three sessions specifically for the area of weakness. The children are then assessed at the end of the twelve weeks by the numeracy co-ordinator and progress is tracked and evaluated.

Due to the success of the initiative we have decided to introduce the programme into the autumn term of Year one and two.

Parental Involvement

At Lister Infants we actively encourage parents to be involved in their child's learning. We hold an annual numeracy meeting to explain how numeracy is taught in school and to give parents ideas on how to help their child at home. We are also trying to organise a numeracy training programme for parents in co-operation with the Family Numeracy team. Hopefully this will be running from Spring 2005.

INSET

INSET is set depending on the school development plan and current mathematical issues. INSET is provided by outside agencies/ LEA/ or in school training by numeracy co-ordinator.