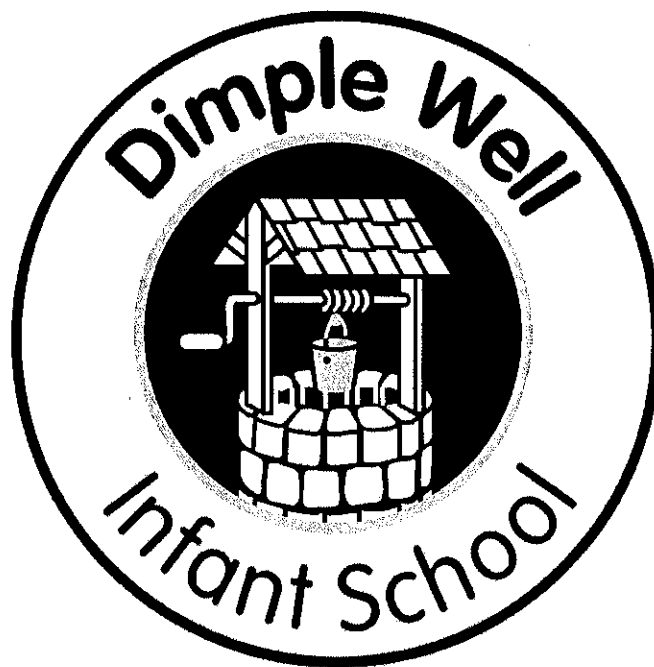


Dimple Well Infant School and Nursery



Mathematics Policy

December 2017

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Mathematics Policy

Introduction

Mathematics helps children to make sense of the world around them through developing their ability to calculate, reason and solve problems. It enables them to understand and appreciate relationships and patterns in both number and space in their everyday lives.

This document is a statement of the aims, principles, strategies and procedures for Mathematics throughout our school.

Aims

- To develop a positive attitude towards the subject
- To become confident and proficient in number, especially mentally
- To encourage a confident approach towards investigations and problem solving
- To work with measures, apparatus and data with efficiency and understanding
- To develop language that children can use appropriately when talking mathematically
- To provide a rich and interesting curriculum and to relate learning where possible to real life situations and first hand experiences
- To use Information Communication Technology as a tool to enhance learning
- To teach basic knowledge and give practice in skills and reasoning which will prepare the children to live in a rapidly changing world where they will have to be adaptable and cope with sophisticated processes and techniques
- To stimulate interest, curiosity, wonder and imagination
- To develop a good self-image, self-motivation, confidence and the ability to working individually and as a team
- To establish that learning is exciting, rewarding, absorbing, and an enjoyable and positive experience, so encouraging an appetite for acquiring further knowledge, skills and experience to promote lifelong learning

Organisation

Our mathematics teaching is based around The National Curriculum (2014) and the Development Matters in the Early Years Foundation Stage document (2012). The mathematics teaching follows the two strands outlined in the Development Matters in the Early Years Foundation Stage document and the eight strands currently outlined in the National Curriculum. Covering these strands will support the children in their progression towards the Early Learning Goals (Foundation Stage) and the appropriate National Curriculum levels at the end of Key Stage One.

The two strands of learning currently outlined in the Development Matters in the Early Years Foundation Stage document are:

- Mathematics: Numbers
- Mathematics: Shape, space and measure

The eight strands of learning currently outlined in the National Curriculum are:

- Number – Number and Place Value
- Number – Addition and Subtraction
- Number – Multiplication and Division
- Number – Fractions
- Measurement
- Geometry – Properties of Shape
- Geometry – Position and Direction
- Statistics

Mathematics is taught, in a variety of ways and using a broad selection of resources, daily across the Early Years Foundation Stage and Key Stage One.

Planning

In the Early Years Foundation Stage the planning of mathematics is based around supporting the children to meet the Early Learning Goals (ELGs) as defined in the Development Matters in the Early Years Foundation Stage document. Planning includes focused activities which will usually be carried out in small groups with an adult. These are specific tasks which will support the children to meet the ELGs. Additionally there will be planned continuous provision, which will encourage the children to use their mathematical knowledge to complete a task independently.

In Key Stage One planning is derived from the outcomes defined in the National Curriculum. The school have adopted the Lancashire County Council scheme of work and teachers use this to plan from. The scheme is developed around the National Curriculum aims and encourages the use of a wide range of media. The broad range of media and resources allow for differentiated tasks to be planned. These tasks will develop in complexity as the children gain confidence and a deeper understanding of the concept being taught. The long term plans (Appendices i and ii) provide an overview of what is taught and when. This is, however, only a guideline and teachers may choose to amend the timetable so as to teach a particular strand through a cross curricular approach when appropriate.

Early Years Foundation Stage (EYFS)

Teachers support children in developing their understanding of problem solving, reasoning and numeracy in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about their developing understanding. Teachers offer opportunities for these skills to be practised, in order to give children confidence and competence in their use.

Children will develop the skills to count, sort and match, identify patterns, make connections, recognise relationships, work with numbers, recognise shapes, have an awareness of space and use a variety of units for measuring. Children use their knowledge and skills in these areas to solve problems, generate new questions and make connections across other areas of learning and development. Children will develop their mathematical awareness in many ways including through stories, songs, games and imaginative play.

Assessment and Record Keeping

Assessment is completed in two forms. There is summative assessment which is completed at the end of a term or year (Appendix iii and iv). The system that is used to make these summative assessments is based on statutory documentation, such as the Development Matters in the Early Years Foundation Stage document or the National Curriculum. Furthermore, in Year Two the children are assessed against a Statutory Framework, which is outlined by the government. This assessment enables the Year Two teaching staff to make a thorough judgement on a child's academic outcomes at the end of the Key Stage.

Official assessment includes:

- Children nearing the end of the Early Years Foundation Stage will complete end of Foundation Stage assessments.
- Children nearing the end of Key Stage One will complete Standard Attainment Tests (SATs).

Additionally formative assessment is used; this is a more ongoing form of assessment. This can be completed as often as on a daily basis. Daily feedback is provided to children throughout the lesson and through detailed marking using the school's marking policy of 'Yippee Yellows and Growing Greens'. This form of assessment also enables teachers to plan appropriate but challenging tasks and identifies those who may need additional support in the form of one to one or small group interventions.

Enhancing Mathematics

The Mathematics Curriculum is enhanced in many ways across the school. Children are provided with opportunities to learn and consolidate existing skills. Through creative cross curricular approaches to learning, the children are supported and encouraged to use mathematics in real life situations.

Information Communication Technology

Opportunities to use Information Communication Technology (ICT) to support teaching and learning in Mathematics will be planned for and used appropriately. Please see the list of useful websites (appendix vi). These websites are intended to support the teaching and learning of Mathematics.

Home/School Link

The link between home and school is fostered in a number of ways. In the Early Years Foundation Stage parents are provided with information on the type of mathematics that will be covered within the week, this provides ideas for parents in which they can support their child in their mathematical development. They also receive information on age related targets in mathematics for each term.

In Key Stage One, at the start of each year, parents are provided with information on age related targets in mathematics and attention is drawn to the Calculation Policy (appendix viii). This document clearly shows parents the methods that are used when teaching their children to calculate. All parents across the school receive a Curriculum Information Sheet which also provides details on Mathematics each term.

Inclusion

We aim to meet the needs of all learners, taking into account gender, ethnicity, culture, religion, language, disability, age and social circumstances. Differentiated tasks will be planned for both higher and lower achieving pupils at the Short Term planning stage.

Special Educational Needs

The provision for children with special educational needs is detailed in the Inclusion/SEN policy. Central to this is the early identification, intervention and careful planning for differentiation. Individual Education Plans and individual plans for gifted and talented children will detail relevant individual targets in mathematics. Additional details can be found in the school's Gifted and Talented policy.

Monitoring and Evaluation

Monitoring and evaluation of mathematics teaching in the school is carried out by the Mathematics Co-ordinator and the Head teacher. When necessary and possible, discussion with the children will take place along with lesson observations and scrutiny of work. Planning is moderated by the Senior Leadership Team.

Role of the Mathematics Co-ordinator

The subject co-ordinator will be responsible for improving standards of teaching and learning in mathematics through:

- Pupil progress
- Provision of mathematics (including intervention and support)
- The quality of the learning environment
- Taking the lead in policy development
- Auditing and supporting colleagues in their Continuous Professional Development
- Purchasing and organising resources
- Keeping up to date with mathematic developments

Appendices:

- i) Annual Overview Year One
- ii) Annual Overview Year Two
- iii) Mathematics Assessment Year One
- iv) Mathematics Assessment Year Two
- v) Development Matters in The Early Years Foundation Stage – Including Early Learning Goals
- vi) Useful Websites
- vii) Resource List
- viii) Calculation Policy

Review

This policy will be reviewed in December 2019

