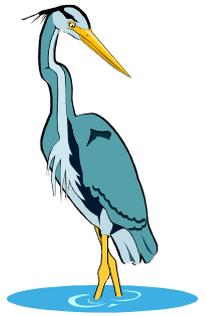


WYKE PRIMARY SCHOOL

OUR MATHEMATICS POLICY



Introduction

Mathematics is a vital component of every pupil's education. It is an essential life skill and an important form of communication. Therefore, mathematics should be related to real life situations wherever possible. Throughout the school, pupils are required to follow the National Curriculum 2014 / Early Years Foundation Stage Curriculum 2014 programmes of study and the school calculation policy.

Our aims

We aim to provide the children with:

- a balance of mathematical experiences related to other curriculum areas where appropriate;
- attitudes of curiosity, perseverance and accuracy and a fascination, wonder, enjoyment and feeling for maths;
- an ability to use maths to communicate to others and to be able to explain their learning;
- a positive attitude towards maths and a confidence in mathematical situations;
- the ability to make use of their knowledge, skills and understanding in real life situations, practical tasks and mathematical investigations;
- an understanding of number, algebra, measurement, data handling, shape and space through meaningful and practical activities.
- Mastery in mathematics by fully understanding and applying new skills and methods



The mathematics curriculum should include suitable work for Foundation Stage children as well as those with special needs. As a school, we recognise that there are aspects of the subject that apply to other curriculum areas, particularly English, science, technology, humanities, PE and art. Cross-curricular links are important and will be included in teacher's planning to enable children to practise and apply their mathematical skills and understand their relevance.

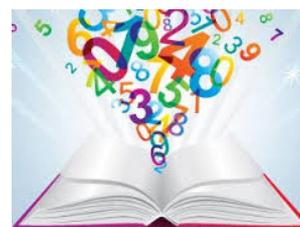
Through the teaching of mathematics, children should be given experiences to foster such qualities as imagination, flexibility, self-organisation and the ability to work co-operatively as a member of a team. The yearly teaching programmes, individual teacher planning, record keeping and staff liaison ensure a continuity of experience for every child.

Parental involvement is considered essential to help achieve our aims and this is why we provide Maths workshops for parents. During these workshops teachers will explain and teach the methods used in each year group for calculation.

Curriculum

Children in Key Stage 1 and 2 will be taught the programmes of study from the National Curriculum 2014. Objectives are year group specific and cover Number, Measurement, Geometry and Statistics. The curriculum aims to develop fluency, mathematical reasoning and problem solving by encouraging children to achieve Mastery in the Maths skills specific to their year group. Reception aged children are taught the Early Learning Goals related to Mathematics.

Usually, lessons start with Target time where children have 5-10 minutes to work on a personalised Number target, e.g. counting up in 10s from any 1 digit number or recalling multiples of 5. This is followed by the main teaching input, differentiated independent or paired activities and then a plenary. To ensure that there is adequate time for developing numeracy skills, each class teacher is expected to provide a daily mathematics lesson, which should last about 45 minutes in Key Stage 1 and 50 to 60 minutes in Key Stage 2.



In the Foundation Stage we recognise that children find it difficult to sustain concentration for extended periods. Initial mathematical activities will usually be carried out with groups throughout the day, often as a play based activity. The learning environment is carefully planned for and resourced to provide children with self-initiated learning opportunities through their play. Careful observations are made of children which are then linked to the Early Learning Goals they have achieved. During the Summer Term there is an increased emphasis on a whole class input and plenary to support their transition into Year 1.

Teaching and Learning

The experiences and materials provided are appropriate to the needs and abilities of the individual child and increasingly reflect the use of new technology. These will include:

- a balance between tasks which develop knowledge, skills, concepts, understanding and the ability to solve problems;
- working as a class, in groups and individually;
- a variation of activities between writing, oral, practical, short and extended tasks;
- using books, calculators, mathematical apparatus and instruments and information technology, for resource purposes;
- oral and written communication of maths to a variety of audiences. Children should be encouraged to talk about the maths they are doing;
- applying mathematical knowledge to cross-curricular and everyday subjects.

An emphasis is placed on mental methods from the early years. There will not always be formal recording in children's maths books. As pupils progress to working with larger numbers they will learn more sophisticated mental methods and tackle more complex problems which require them to make some informal pencil and paper notes. Standard

written methods are taught and the progression towards these methods is crucial, as detailed in the school calculation policy. Children record their work to help clarify their own thinking, as a note for future reference, to communicate with others and to provide evidence of their work in mathematics. Calculators are used to support the teaching of mathematical skills in Key Stage 2 with specific calculator skills being taught in upper Key Stage 2.

Differentiation and SEN

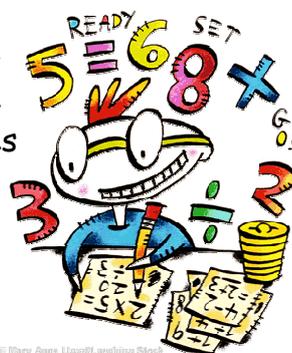
We are aware of a range of abilities within the class and will target questions or tasks appropriately to meet individual needs. Essentially, the main activity will normally be differentiated according to ability. However, there may be some instances when working in mixed-ability groups or whole class activities is appropriate.

Dependent upon the needs of the children, Year 5 and 6 will mix for Maths to create 3 Maths groups. Grouping the children this way ensures children are receiving lessons pitched at exactly their level and enables teachers to plan lessons that focus on the set of skills they need to progress.

Some children, in addition to differentiated work, may receive additional support from teachers, classroom assistants or other adult helpers. This may be in a small group or one to one and will support them in developing their Maths skills. One of the Maths interventions used is called the Number box. This intervention requires children to work on small targets regularly, these are built upon gradually and have a repetitive nature which allows children time to consolidate and grown in confidence.

Planning, Marking, Records and Assessment

Long term planning is based on the Early Years Foundation Stage Curriculum, National Curriculum 2014 and the school calculation policy. Teachers are allowed flexibility to progress through learning objectives in both the order and pace that they feel is suitable for the needs of their class. Short term and weekly planning is based around an agreed format and monitored by the Senior Leadership Team.



The marking of children's work aims to be sympathetic and positive with the child in attendance when possible. Children's work is marked against success criteria using the 'pink and green' marking policy which shows achieved objectives and areas for development. Children have opportunities to revisit their marked work and make corrections using the purple pen of power, and/ or develop their skills further. Children should be involved in assessing their own and each others learning through, for example, 'traffic lighting' to show the level of understanding.

Continuous teacher assessments are being made through daily work with the children and some formal assessments. Class and individual records convey pupils' understanding of the key objectives for each year group, thus aiding continuity and progress throughout the school.

Annotated examples of work are kept in the school portfolios (these should reflect National Curriculum attainment targets and levels).

Monitoring

Medium term planning grids are kept in a central file on the shared network for the Headteacher and Numeracy Co-ordinator to view. The Headteacher and Numeracy Co-ordinator are also given the opportunity to monitor a lesson in each year group at least once a year, with appropriate feedback given to the teacher concerned.

Opportunities will also be taken to scrutinise children's work to monitor progress, attainment and ensure continuity.

The governor with responsibility for mathematics and numeracy also liaises informally with the Numeracy Co-ordinator and is given the opportunity to observe a numeracy lesson in school.

Target Setting

SAT results are analysed and reported to the Personnel & Curriculum committee who are also updated on progress and attainment through discussion and regular updates on the School Development Plan.



Statutory targets are set and reviewed annually for Year 6. Targets are set for each year group based on end of Key Stage 1 SATs, and Year 3, 4 and 5 SAT tests.

Each child is made aware of their own differentiated target. They work upon this daily and know what they need to do to achieve this.

Resources

~Teacher Resources

No one published scheme meets the needs of all children in mathematics, therefore it is expected that teachers will use alternative resources, mathematical games and ICT to promote cross curricular, investigative and problem-solving work. Much of the work in the Foundation Stage is based on practical and verbal activities.

~ Pupil Resources

Maths equipment is stored in a central area within the school supplementing pupil resources in each classroom. Pupils are expected to treat the equipment with care and to take responsibility for getting the equipment themselves and putting it away correctly and tidily. Equipment is topped up on a yearly basis through capitation (and occasional funds raised by the Friends' Association).

ICT

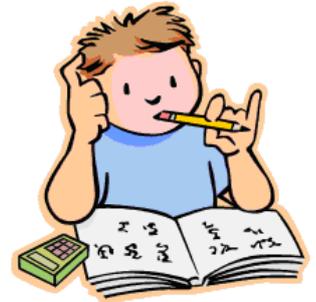
ICT is an essential tool to enhance the teaching of mathematics across the school. The school utilizes a wide range of applications to support the teaching of



mathematics. In Years 1 to 6, the interactive whiteboard is a vital teaching tool and is used daily as part of Maths lessons. The children also have access to computers and laptops that are regularly used to support learning.

Home Learning

All children know their Maths targets and are encouraged to practise these as much as they can outside of school. In Years 2 to 6 children are set Maths activities that are linked to the learning they have been doing in class. This helps to provide a link between home and school and encourages the children to apply Maths skills outside the classroom. The Calculations Policy is available for parents to read, on the school website and an overview of the content to be taught is sent home each term.



Policy Review



This policy was reviewed November 2015 by all staff and the mathematics co-ordinator and approved by governors February 2016 and will be reviewed in line with SDOP priorities.