



Wimborne First School

Mathematics Policy

The Wimborne First School Calculation Policy

We have developed the Wimborne First School Calculation Policy to:

- ensure consistency of approach, methods, strategies, language and recording through the school
- support progression in learning and confidence in the pupils
- increase the confidence of our teachers and teaching assistants
- help inform parents and governors of our methods and development.

What is mathematics?

"Mathematical education provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject."

(Department for Education, National Curriculum, 2013, p5)

We teach the knowledge, skills and language required to enable our pupils to be competent in number, algebra, shape, space, measures and data handling. We also develop their ability to use and apply (U&A) that knowledge and to think mathematically. This includes enabling them to make decisions, communicate, reason, explain, solve problems, follow lines of enquiry, investigate etc.

School Aim

We aim to develop pupils who:-

- have the knowledge and skills across the range of Attainment Targets.
- are fluent in the above so that they can use and apply that knowledge and those skills in a range of situations (both real life and imaginary).
- enjoy their learning of mathematics, willingly tackle their work and learn new mathematics but ask for help should they need it.
- are confident mathematicians, willing to solve problems by making decisions, communicating their ideas and using reasoning.

(paraphrased from Aims of NC 2014, p1)

Good teaching of mathematics

Teachers who:-

- have good knowledge of the mathematics they are teaching.
- understand the progression through the school and beyond, using the school policy consistently.
- understand the pedagogical principles of how children learn best.
- are well prepared, and consider the needs of their pupils.
- work effectively and collaboratively with any teaching assistant.
- are enthusiastic and encouraging.

- can be creative in their ideas for teaching.
- can design activities which are relevant to the experiences of their pupils.
- use a range of modelling techniques, particularly visual images.
- use a range of teaching and learning styles including multisensory.
- question effectively, creating opportunities for discussion and explanation, and for probing understanding.
- use a range of resources, including ICT, both to model / demonstrate to their pupils and for the pupils to use to develop mathematically.
- can be flexible, responding to needs as they arise.
- can make links between ideas (subtraction/addition inverse, money / place value, measures and place value, fractions/decimals/place value).
- are reflective both within and between lessons.
- use assessment to inform the 'next step.'

Activities should include opportunities for:

- practical work
- multisensory activities
- discussion, pupil/pupil as well as pupil/teacher
- U &A mathematics (games, puzzles, challenges, problem solving, investigations, etc.)
- consolidation of fundamental routines
- mental calculation
- written recording
- pupils to think mathematically, particularly making decisions
- for working both independently and cooperatively

Mathematical Language

"Mathematics is a truly global language"
(Professor A. Wolf, in National Curriculum 1999)

We aim to build pupils' understanding of mathematical terms and symbols steadily and systematically through the school. We provide opportunities for pupils to talk mathematically and to communicate ideas on paper, in pictures, using written algorithms, with charts /diagrams etc.

We appreciate that mathematical English (ME) may have different meanings from ordinary English (OE) and highlight/explain those differences as appropriate (e.g. digit, volume, difference).

Maths at Wimborne First School

At Wimborne First School, we strive for all our children to work towards their full potential and to achieve this we provide them with the skills, time, and equipment to do so.

Foundation Stage The teaching of mathematics in the Foundation Stage consists of daily maths workshops that focus on specific areas of the subject. These sessions focus on counting, using number names in the correct order and recognising numbers in the environment. The children learn through a range of practical contexts using images, objects, stories, rhymes and songs to engage and promote the importance of number. The children are introduced to the language of 'more or less' and start to recognise simple shapes from everyday objects. They begin to develop early problem solving skills to encourage them to use maths outside of the classroom.

Key Stage 1 (Years 1 and 2) and Key Stage 2 (Years 3 and 4)

To support Curriculum 2014, Key Stage 1 and Key Stage 2 continue to have daily maths sessions that run weekly as three day calculation, one day shape, space and measure and then one day 'problem solving.' As a result, this gives our children the time to consolidate and increase their mental agility whilst providing exciting 'real life' maths opportunities within the classroom.

Both Key Stages have daily maths lessons that range between 45 minutes (years 1 & 2) and an hour (years 3 & 4.) As a result of new standards set from Curriculum 2014 children at Key Stage 1 are now taught within class and Key Stage 2 are set across the year group. The aim is to 'close the gap' between abilities throughout the school whilst targeting and extending specific age related objectives. It is common that as concepts and strategies are consolidated, movement within class or year group, will be quite frequent.

Mathematics is used, as appropriate, in other subjects (e.g. measuring and data handling in science, direction, scale in geography, symmetry & rotation in art, measuring in design and technology). Each half term we plan a topic/theme. Within that topic we use mathematical skills as appropriate (e.g. for surveys, measuring). In addition, we try to find mathematical problem solving activities associated with the theme.

Inclusion

We aim to provide mathematical activities and experiences to meet the needs of each child, considering ability and/or any learning/physical need as appropriate.

Agreed May 2013, amended April 2014 as a result of Curriculum 2014.

Reviewed and updated December 2015