

# Mathematics Curriculum Policy

## GENERAL

The Early Years Foundation Stage identifies 3 “Prime Areas” of learning, which are:

- Personal, Social and Emotional Development
- Communication and Language
- Physical Development

These are fundamental, work together and support development in all other areas.

The 4 “Specific Areas” include essential skills and knowledge. They grow out of the Prime Areas and provide important contexts for learning. These are:

- Literacy
- Mathematics
- Understanding the World
- Expressive Arts and Design

## WHY TEACH MATHEMATICS?

Mathematics is designated as a “Specific Area” of learning and at Chichester Nursery School we support the view that mathematical skills and knowledge are essential in enabling children to participate successfully in society.

Working in partnership with parents, we hope to set children on a journey of mathematical development. For some this may culminate in a lifelong love of Mathematics which may play a key role in their further education and employment. For others it will be the start of a journey to acquire more basic mathematical and numeracy skills enabling them to move in to adult life equipped with the skills for day-to-day life, offering them enriched opportunities and enabling them to make sensible life choices. Both journeys are equally important.

As the first stage in this process we aim, through child-initiated learning, to stimulate children’s interest in Mathematics and build their knowledge so that they are prepared for the fresh challenges and opportunities of Primary School.

## CURRICULUM CONTEXT

The teaching of Mathematics within the Nursery School is based on the Early Years Foundation Stage Curriculum. This embodies our long held and central philosophy that young children learn best when given the opportunity to be independent and self-motivated learners, free to pursue interests and consolidate learning over several days. We believe that a rich, stimulating and easily accessible environment which contains quality maths resources is crucial to this.

The Mathematics Curriculum is delivered through the dual learning strands of “Number” and “Shape, Space and Measure”.

Through child initiated play, an enabling environment and high quality interactions with experienced adults, children will have the opportunity to:

- Count and develop numeracy skills
- Recognise and write numbers
- Develop mathematical strategies and problem solve
- Develop an understanding of shape and space
- Explore time, weight, size and capacity and develop early understanding of the ways in which these can be measured
- Develop an understanding of and use mathematical language
- Gain an understanding of early algebra and pattern in Maths through patterning and creating repeating sequences

### **KEY FEATURES OF OUR MATHEMATICS TEACHING**

- There are opportunities for children to “bump” into Maths throughout the Nursery (both inside and outside)
- Children are just as likely to access the Mathematics curriculum through cooking activities in the kitchen, building activities in the construction area or exploring different sized containers in water play
- Children’s interests are used as a vehicle for delivering “the teachable moment” and for developing and extending children’s learning, for instance the building of a wall with real bricks outside might give rise to an adult suggesting that the children record how many more bricks they need on an order form, or measure the wall with a tape measure to find how long and tall it is
- Appropriate scaffolding and challenge is provided by all staff to support and extend children’s learning
- Staff model a rich mathematical vocabulary and use practical situations as they arise as problem solving exercises
- Children who use a means of communication other than spoken English are supported in developing an understanding of mathematical language and concepts, through use of their home language and Makaton signing, etc
- Staff ensure children with Special Educational Needs are, wherever possible, able to fully access the Mathematics Curriculum by facilitating access to their chosen resources
- Staff understand that some mathematical concepts, such as counting with 1:1 correspondence, are acquired slowly and can come and go. Adult encouragement and the provision of a wide range of resources throughout the Nursery that support these skills will ensure that they are eventually firmly embedded and provide a secure foundation for future learning
- Staff are skilled at meeting the needs of children of different abilities and learning styles – and the learning environment is carefully resourced and planned to meet the needs of all learners, including physical or kinaesthetic learners
- Careful observation and tracking using iPads enables staff to rapidly monitor children’s progress, and that of groups of children, and plan for the next stage in their learning
- Alongside the “continuous provision” (resources that are out all the time), staff use enhanced resources to build on and extend children’s learning over the next or subsequent days
- Staff firmly believe in equal opportunity for all children and ensure resources reflect a range of different cultures, recognising differing parental expectations and practices
- We encourage children to take appropriate risks in their learning; however adults are vigilant and ready to intervene to ensure children’s safety. Health and Safety policies and risk assessments support us in maintaining a safe learning environment for our children

- We understand that a few children may well achieve the Mathematics Early Learning Goals during their time in Nursery and familiarity with the National Curriculum allows us to plan for their future learning
- Transition from home into the Nursery, from stage-to-stage within the Nursery, and then on to Primary school is carefully managed, with free exchange of information at all transition points, to ensure that children's learning is as seamless as possible
- Examples of how Mathematics is supported within the Nursery School can be viewed through the Mathematics Curriculum Portfolio
- Examples of the children's learning in this area will form part of their POW Update (individual portfolio) which will be sent to parents each half term. Additionally, each Keyworker group has an email address and this enables parents/carers to share special "WOW" moments that occur outside Nursery, potentially providing opportunities to build on a child's current interest
- A Top Tips leaflet to help parents' support their children's development in Mathematics is available in the entrance to Nursery
- This policy covers the provision of all Mathematics teaching within all areas of the Nursery School

**Dated:** Autumn 2018

**To be reviewed:** Autumn 2021