

Merstone School Mathematics – Intent and Implementation

Intent

At Merstone School, our intent is to provide the pupils with a wide range of exciting and stimulating opportunities as they progress through the school. In our school we understand and appreciate that maths is an essential aspect of the curriculum as it will provide the pupils with many of the important skills they will require whilst they are members of our school but also in later life. Staff are consistently mindful of how important life skills are and how we can lay the foundations which the pupils will take with them through their life. Our aim is simple, to support the pupils to develop the maths skills they require to be active and contributing members of society who are able to take the skills they have learnt in school and be able to use them in the community.

Implementation

In our school we follow the National Curriculum guidelines for our subject content. Each key stage will then use this information to plan and deliver weekly lessons which are tailored for each individual pupil to suit their individual learning style and level of academic ability.

Pebbles

Maths enters every area of the Early Years and the development of mathematical concepts is happening all the time.

Through their play and by means of adult-supported practical experiences children become familiar with sorting, matching, ordering, sequencing, recognising and creating patterns and counting everyday objects.

Elements of the daily routine such as preparing snacks, counting those present, number games, songs, rhymes and number-related activities such as jigsaw puzzles help children recognise and use numbers to 10 (and beyond, where appropriate).

Children are encouraged to use their developing mathematical understanding to solve practical problems and their developing mathematical vocabulary to describe shape, position, and size.

Early mathematical concepts are developed such as sorting, matching, colour, shape, size and number.

Moonstones

Maths is taught class-based. The Maths lessons are all taught under a thematic approach. Pupils are grouped according to their individual level/ability. Some lessons are delivered as a whole class such as; number songs. Most lessons are based around a free-flow approach where the pupils can access small group work and 1:1 focused activities. 50% of the lessons have a number focus and 50% of the lessons focus on the space, shape and measure area of learning. In Moonstones much of our learning is achieved through exploration and play based maths activities. We use a range of fun online resources to encourage the pupils to participate in maths activities.

Rubies

The Rubies department at Merstone School consists of pupils from the academic year groups of reception to Year 9. Pupils in the Rubies department have a range of profound and complex learning needs, often alongside complex medical needs. Pupils in the Rubies department are predominately identified as having a diagnosis of PMLD and are usually working within the assessment ranges of PS1 to PS3. The study of maths involves the world around us and the importance of how the skills we learn fit into daily life. Maths links to many other areas of the curriculum from creative to scientific and is not just a set of numbers learned but a way of thinking in many areas of learning.

Early maths is taught in Rubies department through a range of activities including practical, exploration and experience. There are four areas of numeracy development, Using and applying, number, shape, space and measure, and data handling. Using and applying is fundamental to the other three areas and enables pupils in their own individual way to demonstrate their experiences, understand and apply their knowledge appropriately.

Pupils in our Ruby 3 department take part in Asdan Transition Challenge sensory programme which supports all aspects of the curriculum including maths and helps our young people prepare for adulthood.

Sapphires

Maths is taught in classes. The groups within the classroom are differentiated to address individual learning styles and levels. 50% of lessons are Number based and 50% are devoted to topic work as detailed for each term. Two topics are delivered every term for either two lessons per half term or one lesson every week.

In Sapphires department pupils continue to learn through exploration and play based activities where appropriate. We begin to encourage more structured 'work' based activities where appropriate for the individual child. In Sapphires we use a range of online resources to suit individual needs and learning styles.

When pupils enter Sapphires 3 they will be introduced to ASDAN Transition Challenge introduction and progression level to support them to use maths skills whilst developing their independent living skills.

Emeralds

Maths is taught in classes. The groups within the classroom are differentiated to address individual learning styles and levels. 50% of lessons are Number based and 50% are devoted to topic work as detailed for each term. Two topics are delivered every term for either two lessons per half term or one lesson every week.

Pupils in Emeralds 1 and 2 will continue to learn through play and exploration but staff will encourage more 'work' based activities as appropriate.

When pupils enter Emeralds 3 they will be introduced to ASDAN personal progress. These awards will allow the pupils to continue to develop their maths skills whilst beginning to understand how they can use maths to develop the skills they will require to prepare for adulthood.

Topaz


Maths enters every area of the Topaz department and the development of mathematical concepts is happening all the time. Through play, life skills activities and by means of adult-supported practical experiences children become familiar with sorting, matching, ordering, sequencing, recognising and creating patterns and counting everyday objects. During the early stages of development, cognitive and perceptual skills are very much a part of play, and we encourage the children to explore toys and materials where they can develop knowledge of his/her world. This includes concepts such as "what happens when we press, push, dial, shake, turn... how can we make the same action occur again?" Children learn that objects exist even when out of sight. These skills are called "cognitive skills" and are the beginnings of the growth in understanding and early thinking. Through the mathematics area of learning, we develop our skills of number and shape, space and measure. The children learn to anticipate daily routines and specific time-based events such as mealtimes. Children experience number names through games and rhymes, and enjoy counting in a variety of fun ways.

Diamonds

When pupils enter our Diamonds department we place a lot of emphasis on preparing our young people for adulthood. Pupils will continue to take part in 4 maths lessons per week. 2 lessons will focus on number based activities and lessons per week focussing on topic based maths. Much of our maths lessons in our Diamonds department will encourage pupils to use their maths skills to develop their independence skills at an academic level which is appropriate for each individual pupil.

Pupils will also take part in a range of external maths qualifications such as ASDAN life skills challenges, ASDAN Towards Independence modules and pupils working between pre entry and entry level 3 will also work towards their Ascentis examinations.

When pupils reach key stage 5 they are no longer subject to the expectations of the National Curriculum but they continue to focus on a broad range of subjects including maths. This is to ensure that our students leave school at 19 years of age being as independent as possible in order to move on to the next stage of their life. Activities in



the Diamonds department therefore reflect the age and changing needs of our students. This means that the curriculum is based on the teaching of functional skills with the aim of students being able to generalise and apply these in as many everyday contexts and in as many practical ways within the community as possible.