EYFS Early Maths at Villa Real School

Early Years Foundation Stage (EYFS): Teachers and practitioners support children in developing their understanding of mathematics in a broad range of contexts in which they can explore, enjoy, learn, practise and begin to communicate about their developing understanding. Early Maths development includes seeking patterns, making connections, recognising relationships, working with numbers, shapes and measures, and counting, sorting and matching. Children use their knowledge and skills in these areas to solve problems and make connections across other areas of learning and development.

Children in the EYFS at Villa Real learn in many different ways and our varied environments, learning and teaching styles provide a wealth of unique learning experiences for our children. Some may learn by playing, exploring and being active, some by modelling, repetitive routines and real-life experiences and others through creative, songs and games, all of which take place both indoors and outside. Our children have the opportunities to learn in many different ways depending on their needs. Continuous provision and incidental learning opportunities, as well as planned sessions and activities are all prevalent in the way Mathematics is organised and delivered across all three provisions.

More specifically, there are different teaching approaches that are related to the individual needs of the student cohorts at Villa Real School. Within the ASD provision TEACCH bays and a series of boxed activities may be seen. They are recorded and progression is planned for accordingly. Within the CE provision, early maths concepts are taught, practiced and recalled throughout discreet lessons, play and Task Series, for example the rhythmic counting when using rhythmic intentions to support the movements of body parts to execute a task, directional and positional language is also used and repeated throughout.

Mathematical understanding is developed through stories, songs, games, routine, questioning, imaginative play, practical activities, child initiated learning and structured teaching.

Mathematical Development is identified as a 'Specific Area' of learning within the Early Years Framework. It is broken down into 2 aspects which result in 2 Early Learning Goals (ELG's)

1. **Numbers**

Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.

2. **Shape, Space and Measures**

Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They

recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

We at Villa Real are a SEN school and therefore most of our early maths skills and teaching can often be focussed on the prerequisites to these skills. Skills such as attending to an activity, scanning and looking at items, feeling or touching new things, following routines, listening to number or counting songs, clapping, matching colours, posting games, simple puzzles, threading, filling and emptying containers in the sand and water etc. These are all skills which are found in the early stages of child development and are essential for future learning and acquisition of Maths and Numeracy skills.

A good use of language in Mathematics helps children to recognise, create and describe patterns, which is essential for early problem solving skills. At Villa Real we believe children should gain a clear and thorough understanding of mathematical language and its meaning right from the start. Through our different provisions we deliver a varied approach to teaching key vocabulary depending on what the individual requires to support them with their understanding and acquisition. We ensure that key vocabulary and any communication in Maths is facilitated in many different ways, for example through symbols and pecs, eye gaze technology, PODD etc to ensure all pupils have the opportunity to reach their full potential.

The Revised EYFS (2012) states

"Children are born ready, able and eager to learn. They actively reach out to interact with other people, and in the world around them. Development is not an automatic process, however. It depends on each unique child having opportunities to interact in positive relationships and enabling environments".

To this end, At Villa Real, we recognise that

<u>Each child is Unique</u>

"**Every child is a unique child who is constantly learning and can be resilient, capable, confident and self-assured". EYFS 2012**

- We value each child as an individual, accepting their individual needs, interests and rates of development.
- We recognise each child as a mathematical learner.
- We accept and recognise each child's ability, disability, gender, race, and cultural background, so enabling them to enjoy equality of opportunity and support to reach their full potential.
- We aim to support children in recognising that their views count and that their opinion is valued e.g. in following children's interests and ideas for topics in this area.

<u>The Importance of Positive Relationships</u>

"Children learn to be strong and independent through positive relationships." EYFS 2012

- We aim to use parents and other carers knowledge and skills wherever possible to extend the children's understanding and experiences of mathematics.
- We aim to be confident and competent mathematical role-models for the children in our care.
- We aim to support children to work together and begin to take account of ideas and preferences which differ from their own.

The Provision of an Enabling Environment

"Children learn and develop well in enabling environments, in which their experiences respond to their individual needs and there is a strong partnership between practitioners and parents and carers." EYFS 2012

- We aim to provide challenging, flexible, motivating resources and opportunities which support and develop the mathematical skills, independence, creativity and imagination of each child.
- We aim to create an environment where it is "safe" to make mistakes, to share thoughts and ideas, explore different options, and work collaboratively.
- We aim to provide a place where children are able to persevere, concentrate and pursue their own interests.
- We aim to provide resources which are accessible and organised in ways which encourage independence and responsibility (Continuous and Enhanced Provision)
- We aim to create a stimulating environment which offers a range of activities to develop mathematical interest and curiosity both indoors and outdoors.
- All staff aim to use the correct mathematical terminology and vocabulary to support development of the children's understanding and vocabulary
- We aim to question children in a way which develops their thinking, extends their problem-solving opportunities and enhances their learning

- We aim to support children with additional needs by providing supplementary experiences and information about the world around them in appropriate formats.

Learning and Teaching within Mathematics

Learning and Development

At Villa Real we aim to give each child the opportunity to;

- have the time, space, resources and opportunities to develop, mathematical concepts and language during activities which arise out of the child's own interests and curiosities and adult-led activities.
- consolidate and extend children's knowledge and skills through careful assessment, observations and planning.
- explore "real-life" problems by using everyday situations and events as they arise eg "How many cups will we need for snack-time? How can we find out?"
- represent their own explorations of mathematical concepts.
- develop their understanding and confidence through practical "hands-on" activities both indoors and outdoors, which is supported by appropriate adult intervention, and which takes account of the preferred learning styles of individual children (visual, auditory and kinaesthetic).
- develop their understanding of and competent use of mathematics by offering a range of activities – some explicit and others which develop ideas more discreetly in activities

such as role-play, songs and rhymes, everyday routines (such as group-time), walks in the local environment, interactive displays. ICT – (computer/non-computer).

- pursue and solve their own mathematical fASDinations through offering them a rich and interesting environment
- interact with a diverse range of multi-sensory, motivational resources which appeal to our young children, takes account of those who for whom English is a second language or who may need to use alternative communication systems, and which promote independent learning, thereby enhancing their understanding, experience and enjoyment of mathematics.

Teaching

At Villa Real, Practitioners;

- act as role-models and help the children to see themselves as mathematicians and to develop positive attitudes towards learning and using mathematical concepts, by being confident and enthusiastic about the subject themselves.

- observe and listen to children to better understand their interests/curiosities and provide opportunities/resources for child-led learning.

- maintain children's enthusiasm and confidence by responding to the children's interests and lines of enquiry as well as planning practical and appealing activities which are appropriate for the children's level of development, and which take account of different learning styles. We aim to support children who need practice in developing basic skills in maths and to challenge more-able children to use and apply their mathematical knowledge/skills.

- make use of everyday play activities (e.g. farm – how many pigs do you think will fit in this sty?) or daily routines (e.g. gathering for group-time, sharing snacks) to demonstrate problem solving strategies, encourage children to think about ways to solve problems and develop the children's understanding of mathematical language. Staff intervene appropriately to develop children's understanding of mathematical concepts (e.g. how many dinosaurs did you fit into your cave?)

- do not rush children to record numbers or symbols until they are ready to do so and see that it is purposeful e.g. price tickets on toys in the toy shop, shopping lists, recipes, measurements to build a den etc. i.e. recording numbers as an integral part of the play situation.

- use a wide-range of resources and activities both *indoors* and *outdoors* to develop the children's enjoyment of mathematics in a varied and stimulating way.

Learning

At Villa Real children learn by;

- being supported to follow and develop their own fASDinations (child-led learning/provision of a rich and stimulating environment/Continuous Provision) as well as being involved in explicitly mathematical activities i.e. planned, "focused" activities that are organised and led by the adult.

- being involved in play which is purposeful so that they can (with appropriate adult support) begin to appreciate mathematics in the world around them (e.g. numbering model houses so the postman can match letters to the right houses).

- being encouraged to communicate "mathematically" about activities or observations. They are encouraged to develop their own strategies for solving mathematical problems. They are praised for their efforts in **thinking** about a problem, for **guessing** (estimating) and not just for giving correct answers.