

Numeracy and Mathematics at Kilcreggan Primary School Position Statement

At Kilcreggan Primary School, we aim to provide children with the skills in order to develop the ability to calculate, to communicate, to reason, and to solve problems.

In Scotland, children have a legal right to the UNCRC. The following Articles are applicable to Numeracy and Mathematics learning:

Article 3: When adults make decisions, they should think about how their decisions will affect children. All adults should do what is best for children. Governments should make sure children are protected and looked after by their parents, or by other people when this is needed. Governments should make sure that people and places responsible for looking after children are doing a good job.

Article 23: Every child with a disability should enjoy the best possible life in society. Governments should remove all obstacles for children with disabilities to become independent and to participate actively in the community

Article 29: Children's education should help them fully develop their personalities, talents and abilities. It should teach them to understand their own rights, and to respect other people's rights, cultures and differences. It should help them to live peacefully and protect the environment.

Article 31: Every child has the right to rest, relax, play and to take part in cultural and creative activities.

A full list of Articles can be found here: <u>convention-rights-child-text-child-friendly-version.pdf</u> (<u>unicef.org</u>)

What does Education Scotland say about Numeracy and Mathematics?

Mathematics is important in our everyday life, allowing us to make sense of the world around us and to manage our lives. Using mathematics enables us to model real-life situations and make connections and informed predictions. It equips us with the skills we need to interpret and analyse information, simplify and solve problems, assess risk and make informed decisions.

Mathematics plays an important role in areas such as science or technologies, and is vital to research and development in fields such as engineering, computing science, medicine and finance. Learning mathematics gives children and young people access to the wider curriculum and the opportunity to pursue further studies and interests. Because mathematics is rich and stimulating, it engages and fascinates learners of all ages, interests and abilities.

Learning mathematics develops logical reasoning, analysis, problem-solving skills, creativity and the ability to think in abstract ways. It uses a universal language of numbers and symbols which allows us to communicate ideas in a concise, unambiguous and rigorous way.



'To face the challenges of the 21st century, each young person needs to have confidence in using mathematical skills, and Scotland needs both specialist mathematicians and a highly numerate population.' Building the Curriculum 1

Mathematics equips us with many of the skills required for life, learning and work. Understanding the part that mathematics plays in almost all aspects of life is crucial. This reinforces the need for mathematics to play an integral part in lifelong learning and be appreciated for the richness it brings.

What does Argyll and Bute say about Numeracy and Mathematics?

Mathematics is not just a subject learned in school; it is a fundamental tool that empowers individuals to navigate, understand, and excel in an increasingly complex and interconnected world. It is the language of problem solving and innovation, underpinning progress and development across diverse fields and in everyday life. At primary school, a substantial amount of time is devoted to the teaching and learning of mathematics in order to build a strong foundation for the acquisition of knowledge and skills in later life. Effective learning of mathematics requires a coherent and well-structured framework, excellent instructional materials, and excellent teachers who make use of sound pedagogical strategies that are developmentally appropriate for the learners in front of them.

What does Numeracy and Mathematics currently look like at KPS?

Having read and been apart of conducting research, staff and practitioners at Kilcreggan Primary School use these strategies and resources to teach Numeracy and Mathematics:

- Number Talks
- SEAL (Stages of Early Arithmetic Learning)
- CGI (Cognitive Guided Instruction)
- Numicon
- Active Learning
- Learning through Play
- TeeJay Maths
- Learning outdoors
- Learning online
- Applying maths in real life contexts and across learning

What is the impact of Numeracy and Mathematics at KPS?

What our learners say

'I like playing maths games with my friends using the dice and on the iPads.' Hugo

'I like to write calculations on my board and going outside for Maths.' Nieve

'Number rods are fun.' Olly

'I like doing the Murder Mystery challenges, they make my brain think.' Ava



'I like column sums, multiplying and dividing. I like learning about coordinates because we went outside to play real life Battleships. Sometimes we do work in our jotters, sometimes we do work on our whiteboards and sometimes we do it with the teacher.' **Benjamin**

'I like sums and word challenges. When we do word challenges, we can use Numicon, Number Rods or cubes to help us.' **Olivia**

'I like counting with Jack Hartmann, playing Sumdog and using the Numicon.' Hope

What our parents say

'My child really enjoys Maths. He knows many ways to work out a calculation. He really likes Numicon and Sumdog.' **Parent A**

'He is always asking me to ask him questions. He can tell me so much about how he got the answer. It's great to hear him talk about number with such enthusiasm. When he gets stuck, he doesn't panic...he knows he can use Numicon or a 100 square to help. It's great!' **Parent B**

'My children love all the singing and dancing they do in class. They are learning to count in 2s, 5s and 10s really well whilst singing. They can count much better than I can.' **Parent C**

'My child is much more confident in maths. They can work out a lot of mental sums by themselves. When we go to the shops they can work out how much money I have spent...now she can tell me how much change I have. She has even set me a budget for my shopping!' **Parent D**

What our staff say

'The way Kilcreggan delivers Maths is a way that engages all the learners. Using active maths provides a fun element to their learning but also having Numicon helps you challenge all learners.'

'The children really enjoy Maths at Kilcreggan. If they do not know the answer, they are confident they can work it out using Numicon, number rods, 100 squares, cubes or drawing it out. Through Numicon, SEAL, Number Talks and CGI, the pupils have good mathematical language skills.'

Useful links:

Argyll and Bute's Numeracy and Mathematics Progression Framework

Sumdog

Numicon Guide for Parents

Education Scotland: Numeracy and Mathematics