Kilbarchan Primary School
Numeracy and Mathematics Learning and Teaching Policy
Revised August 2022

Aim – What do we want to achieve?

For every child to achieve the highest standards in numeracy and mathematics, allowing them to develop the skills and work towards the qualifications needed to succeed in life.

How are we going to do this?

- Base our approaches on research-based approaches that are proven to make a difference
- Base our learning and teaching on the 3-domain model: developing pupils to see themselves as mathematicians; using and building upon the information they bring in from outside the classroom; and developing the knowledge and skills required to make progress
- Develop the skills of all staff to plan, teach and assess engaging lessons for all pupils
- Play based activities will be used in our infant classes
- The 'concrete, pictorial, abstract' approach is used to introduce new concepts and support the revision of others
- Track learning pathways to ensure they are progressive
- Track attainment over time, identifying gaps, targeting interventions, and evaluating impact
- Identify and target inequities, working strategically to close the attainment gap
- Build pupil confidence in numeracy and maths
- Work with partners to provide a rich numeracy and mathematical environment where real life contexts are valued, and pupils can apply their learning across the curriculum

How will we know we have achieved this?

- There will be a buzz around the room when maths/numeracy skills are being taught, explored, and used.
- Staff attendance at appropriate training courses and participation in dialogue with colleagues.
- Gather data across the 3-domain model: using the whole school tracker; feedback from lesson observations, including pupils' feedback; and family learning sessions
- Lesson observations and quality assurance activities evidence that: mathematics and numeracy is valued daily; there is appropriate differentiation to meet needs and challenge all pupils; a range of resources are used; there is a progressive approach to developing mental agility; and pupils have opportunities to apply skills taught.
- Pupils will talk confidently about their strengths and areas for improvement. They will use mathematical language accurately.
- Pupils will be able to give real life examples showing where these skills could be used and will be able to give examples from school to show where they have applied these skills across the curriculum.
- Attainment data will show progress over time and will be based on data gathered from assessments, observations

What will you see and hear?

- Numeracy and/or Maths is taught every day
- A broad curricular approach that includes: number, money and measure; shape, position and movement; and information handling
- Children and staff talk about maths and where it is used in the real world
- Correct mathematical language is modelled by all staff
- New concepts are taught and then differentiated to suit the needs of the pupils

- Pupils choose their level of challenge, promoting a positive attitude towards the concept of challenge, growth mindset
- The level of challenge should sit around 90%, supporting pupils to feel positive about their achievements
- New concepts are taught through a concrete, pictorial, abstract approach
- Learners experience a mixture of active, cooperative, peer, group and individual learning activities
- Mental agility is taught progressively through SEAL planners and further enhanced by Number Talks. Mental agility features in a minimum of 3 lessons per week
- Experiences and outcomes are often bundled together so help pupils make links within and across the curriculum. By working in this way, they can apply what they have learned in different contexts and in real life situations
- Pupils will be assessed at regular intervals, at end of units and at end of levels. A range of assessment tools will be used, formative and summative, to determine interventions and next steps.
- Parents/carers will receive clear and constructive feedback on progress four times a year, supporting them to help at home and reinforce concepts taught.

The Journey through Kilbarchan Primary School

In early years and infant classes, we use play to develop children's understanding and familiarity with number. Play is led by pupils, with teachers working collegiately to develop engaging activities that develop their interests and reflect real life situations. Teachers model activities and ways in which targets can be achieved using the relevant materials available. Play activities are based on pupil interests and current events, with targets used to support revision of concepts.

As pupils move through the school, they will play and explore number through a concrete, pictorial, abstract approach. Teachers use the Renfrewshire Maths planners to ensure consistency and progression in line with local authority and nationally agreed expectations and priorities.

SEAL planners provide the framework for a progressive and comprehensive mental maths strategy and, as pupils progress, this will develop into a Number Talk approach. In line with good practice from the numeracy intervention programme, SEAL planners can be revisited as a key assessment tool to identify specific gaps or areas for intervention.

Throughout a pupil's journey they will learn from and with digital technology. From interactive Smartboards in every room, to our pupil iPads, class sets of Chromebooks, and coding devices, our pupils can explore mathematical concepts. Such technology is used as a teaching tool; a device through which to share good work and progress; a platform from which numbers can be analysed; and information displayed.

Our pupils are provided with a wide range of opportunities to develop their mathematical learning in their journey with us. From working by themselves, in pairs, small groups or whole class, we recognise their determination and celebrate their progress.