

# Alloway Primary School and Early Years Centre



## Numeracy Policy Updated June 2024

## **Introduction**

Curriculum for Excellence highlights the importance of being numerate:

*“A numerate person will have acquired and developed fundamental skills and be able to carry out number processes but, beyond this, being numerate also allows us to access and interpret information, identify possibilities, weigh up different options and decide on which option is most appropriate.”*

Curriculum for Excellence: Building the Curriculum 4: Skills for Learning, Skills for Life and Skills for Work

This policy focuses on the development of numeracy at Alloway Primary and EYC.

## **Our Vision**

To provide a safe, happy, purposeful and nurturing learning environment where children, staff, parents and visitors feel valued and respected. Everyone in our school is supported to reach their full potential by working together to promote kindness, inclusion and resilience.

In order to achieve this vision, we aim to provide high quality learning and teaching in numeracy to develop our children as competent and confident life-long learners. We must aim to foster a love of numeracy in all pupils.

## **Rationale**

We strive to ensure that every child should become competent in all areas of numeracy in order to be life-long learners, who are able to live, work and succeed. Children will develop the skills which will enable them to understand and make informed decisions by using numeracy skills to analyse and problem solve in every-day life. Having well-developed numeracy skills allows young people to be more confident in social settings and enhances enjoyment in leisure activities. This is underpinned by South Ayrshire Council Numeracy Strategy as well as the Curriculum for Excellence.

Through A Curriculum for Excellence, it is the responsibility of all practitioners to ensure that we meet these goals and successfully raise the attainment of numeracy amongst all learners. The importance of our young people becoming numerate should not be underestimated as the success of young people will directly impact on our society and nation.

## **Policy Aims**

- Raise levels of achievement and attainment in numeracy among all learners.
- Continue to develop our online planning tool in order to effectively plan using SAC frameworks to deliver high quality learning, teaching and assessment in numeracy.
- Increase staff skills and confidence in teaching numeracy and ensure that the whole school community understands its role in developing numeracy.
- Ensure all learners are provided with maximum opportunities to acquire numeracy skills that they can apply effectively and with confidence across the curriculum and in everyday situations.

- Promote progression and continuity at all stages and across areas of transition to ensure a seamless, coherent and relevant numeracy curriculum for all.

## **Planning**

Staff use South Ayrshire Council frameworks in numeracy that incorporate skills from Curriculum for Excellence Experiences and Outcomes as well Numeracy Benchmarks.

Plans are now digital with staff accessing these on our OneNote Planning Notebook.

Experiences and outcomes and benchmarks are arranged into numeracy organisers below. Staff teach all organisers each year to ensure coverage and pupils are given frequent opportunities to revisit topics and apply previously learned knowledge and skills in new and unfamiliar contexts. Staff embrace the seven principles of curriculum design: challenge and enjoyment, breadth, progression, depth, personalisation and choice, coherence, relevance.

- Estimation and Rounding
- Number and number processes
- Multiples, factors and primes
- Powers and roots
- Fractions, decimal fractions and percentages including ratio and proportion
- Money
- Time
- Measurement
- Mathematics – its impact on the world, past, present and future
- Patterns and relationships
- Expressions and equations
- Organiser
- Properties of 2D shapes and 3D objects
- Angle, symmetry and transformation
- Organiser
- Data and analysis
- Ideas of chance and uncertainty

Medium term numeracy planners (SAC frameworks) are passed on during transition as highlighted in our Transition Policy. To clearly identify skills taught in each stage, we use a RAINBOW highlighting system. For example, planners passed from P1 to P2 will show skills clearly highlighted in red, showing coverage of skills from P1. The P2 teacher will then highlight in amber as they plan.

Each ability group has their own framework planner highlighted. There may be framework planners for individual learners where appropriate.

Numeracy skills are taught across the curriculum and therefore will feature in medium term planners for other curricular areas such as social studies. Staff will highlight these skills on numeracy framework planners also, to ensure a record of coverage of skills.

Additional Number Talks and Big Maths guides and resources are available for each stage to ensure pupils are taught a variety of strategies to tackle calculations. Guidance on the Concrete Pictorial Abstract approach and teaching for understanding are also available on our digital OneNote Planning Notebook.

Medium term plans inform short term weekly planners and these show learning outcomes and success criteria as well as resources and assessment for each numeracy lesson.

- Clear differentiation is provided in weekly plans. Groups of learners have appropriately differentiated success criteria, resources, teacher input, support staff input and cooperative/individual tasks.
- Pupil voice and interests inform our planning and learners are involved in the planning process through learning conversations, KWL activities and Making Thinking Visible routines. Planning is responsive and pupils are involved in co-constructing success criteria.
- Through consultation with their teacher, pupils set personal learning targets for numeracy which are displayed on desks/wall displays so that pupils can access these regularly to work on targets. These will be shared on Learning Journals so that teachers can upload observations directly linked to targets.
- Clear links are promoted between numeracy and other curricular areas.
- Every opportunity is taken to teach numeracy in context, and this should be part of every lesson. This helps pupils to see the relevance of numeracy to their daily lives. Teachers will link numeracy concepts and organisers where relevant rather than teaching all concepts discretely. Again, this ensure pupils can revisit and apply skills.
- Staff produce a Learning Journey Flyer for parents every term. This communicates planned learning for all curricular areas including numeracy and illustrates how parents can support their children's learning at home.

### **Learning and Teaching Strategies**

Learning and teaching experiences involve:

- An engaging introduction, differentiated learning experiences and plenary.
- Revisiting previous learning to in order to build on skills and knowledge.
- Regular opportunities to discuss, communicate and explain strategies used in numeracy (Big Maths CLICs and Number Talks)
- Direct interactive teaching with whole classes as well as groups of learners to ensure appropriate differentiation.
- Appropriate use of concrete, pictorial and abstract approaches to develop a deep and sustainable understanding of concepts for pupils, for example the use of counting sticks and cubes, number lines and pictorial bar models.

- Contextualised learning linked to real life context or a context that is familiar to pupils' experiences, for example gaining skills in profit and loss during an enterprise project.
- Active learning with opportunities to discuss, observe, explore, investigate, experiment and play; ensuring that all children are appropriately challenged at their stage of learning.
- Play pedagogy is vital in pupil engagement in understanding in numeracy.
- Learning in the outdoors.
- Word problems that allow pupils to demonstrate application and problem-solving strategies.
- Appropriate and effective use of technology including iPads, online resources, videos and pictures.
- Effective use of support staff to support and challenge learners.
- Effective use of interventions, such as Catch-Up Numeracy to meet the needs of learners.

### **Setting out of Numeracy Work and Marking Codes**

All classes have a copy of the Dyslexia Friendly Marking Code so that staff and pupils follow agreed marking conventions for written work. Jotters are neatly presented and include dated work with learning outcomes. Jotters show a variety of assessment strategies underpinned by Assessment is for Learning principles.

### **Resources**

A variety of resources are used to support active learning and teaching methodologies in numeracy:

- Concrete materials eg. Cubes, bears, beads
- Rekenreks
- Single and double ten frames
- Dot images
- Number lines
- 100 squares
- Games eg. flip cards, tarsia, dominoes
- Bar models
- Flashcards
- Measuring equipment
- Edpax
- Online resources eg. Sumdog, Topmarks, NRich Maths
- iPad games
- Beat That and CLIC resources
- Number Talk strategy cards

- Problem Solving strategy cards
- Challenge word problems
- Interventions eg. Catch Up Numeracy, 5-Minute Numeracy Box

Commercialised textbook schemes and worksheets are not used to drive learning but are used as a tool to support the delivery of lessons and activities.

### **Assessment, Tracking and Evidence**

Teachers plan for assessment and track and evaluate pupils' progress in numeracy, using this information to inform future teaching and learning. Assessment is for Learning approaches are used to identify success and plan next steps and these are regularly revisited with staff. All classes display such strategies which include peer-assessment, self-assessment, questioning, traffic-lighting and thumbs. Learning Intentions and Success Criteria are shared and co-constructed with pupils enabling them to assess their development and highlight success throughout lessons.

High quality assessments are planned for each term which allows teachers to assess a variety of skills in numeracy through a contextualised numeracy assessment. Planning documents incorporating SAC Frameworks and Benchmarks inform the Learning Intentions and Success Criteria for planned assessments. These are differentiated for groups of learners. The principles of Curriculum for Excellence mean that progress is defined in terms of breadth, challenge and application of achievement at the level for each stage therefore such high-quality assessments are set in a real-life, relatable context. Word problems are a key feature in high-quality assessments and various curricular areas may be incorporated, allowing pupils to demonstrate application and problem-solving skills.

Additional periodic, summative assessments allow teachers to track numeracy skills of pupils throughout the session. These may be check-ups as well as standardised assessments such as SNSA and GL.

Skills are assessed and tracked, and evaluations are completed for each learner in order inform next steps. This should be complete on the termly assessment overview for numeracy. Staff analyse data and use this information to support pace and ensure the challenge/support is appropriate and will raise attainment of all pupils. Assessment, tracking and evidence are passed on during transition in line with policy.

Ongoing assessment will also be undertaken in a variety of ways and different forms of evidence will be gathered:

- Ongoing evaluations of daily/weekly progress by referring to success criteria set at planning stages. This will inform changes in daily/weekly lessons to accommodate changes in pace of learning.
- Ongoing use of formative, AifL strategies during lessons to give effective feedback and monitor pupil progress and next steps.
- Use of peer/self-assessment by pupils.

- Standardised assessments are used to assess progress and development in numeracy skills. SNSA is used in P1, P4, and P7 and GL assessments in P3-P7.
- Photo and video evidence
- Exemplification of learning and understanding included on class learning wall and in individual Learning Journals. This should include written examples and photographs of practical learning.

Hard assessment evidence for each pupil is kept in assessment boxes within each class. This ensures triangulation of planning, assessment and tracking and evidence.

### **Homework**

Numeracy homework is planned and provided weekly for pupils. Additionally, numeracy homework can be incorporated into monthly challenge homework grids, promoting personalisation and choice. Homework should provide rich opportunities for children to explore learning through a variety of exciting and enjoyable activities.

As well as reinforcing concepts, effective homework:

- has a clear purpose and demands active learner engagement.
- may be linked to other curricular areas where appropriate, giving pupils opportunity to apply learning.
- includes practical, active tasks as well as written tasks.
- provides opportunities for parents to engage in learning with pupils, encouraging meaningful discussion.

### **Monitoring and Evaluation**

The Senior Leadership Team will monitor the progress in numeracy and the delivery of the curriculum by:

- having planning meetings every term to discuss planned learning, coverage of the curriculum, pupil progress and evaluations recorded.
- having tracking meetings in order to discuss pupil progress in numeracy and the strategies and approaches in place to support and challenge in order to raise attainment.
- monitoring numeracy jotters/workbooks/homework jotters, and discussing learning and teaching with selected focus groups of pupils.
- formal observations of numeracy lessons and learning walls.

- informal visits to each class during numeracy lessons.
- carrying out regular audits to review school's progress against national and local standards.
- the Numeracy SIP Group led by SLT will drive forward numeracy development.

### **Equal Opportunities**

As a Gold Rights Respecting School, Alloway Nursery Class and Early Years Centre aim to provide equal opportunities for all pupils irrespective of ability, gender and cultural background. We strive to enable each child to maximise his/her potential.