Annanhill Primary School



Maths Policy

*“Mathematics is not about numbers, equations, computations, or algorithms: it is about understanding.”*

*William Paul Thurston*

The Importance of Mathematics

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history’s most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary in most forms of employment. A high-quality mathematics education, therefore, provides a foundation for understanding the world, the ability to reason mathematically and a sense of enjoyment and curiosity about the subject.[[1]](#footnote-1)

Numeracy and mathematical skills are embedded in the Experiences and Outcomes and cannot be taught in isolation. These skills can be developed through careful planning of learning activities, questions and a range of assessments. These should encourage learners to think about the concepts, going beyond the recall of knowledge and encouraging them to explain their thinking. As learners progress through Curriculum for Excellence levels, they should demonstrate increasing sophistication and independence in their ability to demonstrate, link, transfer and apply skills in a range of increasingly more challenging contexts.[[2]](#footnote-2)

Mathematics is a proficiency which involves confidence and competence with numbers and measures. It requires an understanding of the number system, a repertoire of computational skills and an ability to solve number problems in a variety of ways in which information is gathered by counting and measuring and is presented in graphs, diagrams, charts and tables.

Mathematics gives children a way of coming to terms with their environment. Practical tasks and real life problems can be approached from a mathematical point of view. Mathematics provides children with imaginative areas of exploration and study and gives them the materials upon which to exercise their mathematical skills. These skills are a necessary tool of everyday life. Mathematics should help children to develop an appreciation of, and enjoyment in, the subject itself; as well as a realisation of its role in other curriculum areas.

Intent:

Our children deserve to have numeracy and maths curriculum that is motivating, challenging and comprehensive, delivered in a learning environment that helps to nourish curiosity and develops skills to investigate the world around them.

At Annanhill we work with the East Ayrshire numeracy and mathematics team to ensure that all learners develop the numeracy and mathematics skills required to be successful in all areas of life, learning and work and to raise attainment and close the poverty related attainment gap in relation to numeracy and mathematics.

We offer learners a balanced curriculum to develop a range of maths skills. We encourage them to be positive and enthusiastic towards maths.

Our intent is for all pupils *to be able to use and apply mathematics across the curriculum, and to understand the application of mathematics in real life contexts and scenarios and* to show;

* **ACHIEVEMENT** – *to be competent and confident in applying mathematical knowledge, concepts and skills.*
* **KINDNESS** – *to be able to work independently and in cooperation with others.*
* **RESPECT** – *to strive to achieve excellence in maths.*

Implementation:

Our approach to teaching numeracy and mathematics is based on a shared understanding of the Lynda Keith approach. This approach strives to ensure that all children develop high levels of numeracy skills through their learning across the curriculum.

Our children are set tasks that are challenging to their level. They are provided with opportunities to learn in ways that maximise the changes for success. The adults work with them to remove specific barriers to their progress.

Our maths planning is based mainly from the Easy Ayrshire numeracy and mathematics pathways for each level and is supported by a wide range of resources. Including, but not limited to Heinemann Active Maths and TeeJay.

We have a wide range of resources that are dedicated to classes/stages or are centrally shared that will support our learners in the development of a range of skills.

Across the school, but mainly in our younger classes we encourage children to develop their mathematical skills through play.

Our pupils are encouraged to develop skills using concrete materials, moving on to pictorial representations and finally consolidating their skills through abstract thinking.

The Golden Lesson

At Annanhill Primary School we strive for all learners to be engaged in high quality learning and teaching.

WHAT THAT FEELS LIKE

* We have a positive, supportive and nurturing climate for learning with effective organisation established.
* We have an ethos of aspiration and achievement for all.

WHAT THAT LOOKS LIKE

* We show evidence of a progression and knowledge of skills with daily lessons through high quality planning.
* We set high expectations and high level of challenge with appropriate pace to take account of a variety of learners through appropriate differentiation.
* We ensure a wide range of learning and teaching approaches are used to meet different learning styles.
* We allow learners to take responsibility and lead their learning.
* We ensure Dyslexic Friendly Strategies are in place for children and children are supported to use resources to remove barriers for learning.
* We ensure children have access to high quality outdoor learning and digital learning experiences to support the curriculum.
* We have planned for high quality assessments to take place at key points in the lesson to gauge learner understanding.
* We utilise a range of formative assessment approaches appropriate to task, (e.g. self/peer assessment, traffic light, 2 stars and a wish, tickled pink and green for growth, thumbs.)
* We have clear routines are in place to challenge and reinforce learning.
* We ensure that children are actively engaged in their learning for the full lesson.

WHAT THAT SOUNDS LIKE

* We share learning intention with learners that are skill based.
* We share/negotiate success criteria with learners and revisit these at key points throughout lesson.
* We use effective questioning to encourage higher order thinking.
* We encourage learners to demonstrate their understanding in a range of ways - teaching others, presenting, writing etc.
* We engage in plenary sessions to assess and evaluate the learning with the learners.
* We ensure all learners are encouraged and supported to evaluate their own learning and plan next steps.
* We give high quality feedback as clear and specific advice to learners on how to improve.

Impact:

Our goal is for all our learners is to raise their attainment in numeracy and mathematics.

The assessing of numeracy and mathematics is a continuous process. Staff make use of summative and formative assessment. Every activity is assessed by the teacher and this assessment is used in planning for the next steps to ensure that all pupils are receiving the correct level of challenge and/or support.

Formal numeracy assessments take place two to three times a session where the children are assessed using the East Ayrshire Numeracy Toolkit.

Pupil progress across numeracy and mathematics is tracked using East Ayrshire tracking and monitoring system.

1. <https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study/national-curriculum-in-england-mathematics-programmes-of-study> [↑](#footnote-ref-1)
2. <https://education.gov.scot/nih/Documents/NumeracyandMathematicsBenchmarks.pdf> [↑](#footnote-ref-2)