



## Curnow School Mathematics Policy Statement

### Intent – Curnow School (Access)

All pupils at Curnow School study Mathematics as part of their basic academic entitlement and this is of vital importance in our Curriculum.

All staff at Curnow School are involved in the teaching of Mathematics paying due regard to a pupils chronological age and their developmental stage. It therefore seeks to be flexible by being responsive to individual need, developmental need and learning style.

We strive to provide all pupils regardless of their ability, gender or race, with an opportunity to experience the enjoyment, stimulation and knowledge that the teaching of Mathematics can offer by enabling the pupils to use the knowledge they gain in a functional way in all areas of everyday life. The teaching delivery of Maths will use the Mastery maths pedagogical approach within KS1 – 4. The Maths development plan will ensure this approach is underpinned by the development of teacher's skills, knowledge and understanding of this valuable teaching approach and will be monitored by the Maths subject co-ordinator for impact on maintaining high quality teaching/learning and pupil progress.

We aim to ensure that all pupils have a breadth of experiences and developmentally appropriate curriculum access guided by the EYFS Development Matters and the Curnow Curriculum planning documents. Our intention therefore, is to modify and adapt programmes of learning which makes them both specific to need and provide a breadth of experiences and offer a progression to children's learning. We believe that all areas of Maths are important but have an enhanced focus on early number skills (including the 5 counting principles), measure and money. Progress within these areas will have the biggest impact on life post school.

### Intent – Pupil (Purpose)

The teaching delivery within **EYFS and Year 1** will aim to encourage the pupils of Curnow School to:

- Access to a broad range of knowledge and skills outlined within the early learning goals (EYFS framework) in the specific areas of **mathematics** that provide the right foundation for good future progress through school and life
- Quality and consistency in all our early years settings, that helps every child make good progress and no child gets left behind
- A secure foundation through learning and development opportunities which are planned around the needs and interests of each individual child
- Regular assessment opportunities where progress is measured and reviewed regularly
- Equality of opportunity and anti-discriminatory practice, ensuring that every child is included and supported

The teaching will focus on enabling children to learn the skills to;

- develop and improve their skills in counting, understanding and using numbers by following the math mastery 5 counting principles.
- place numbers in order and say which number is one more or one less than a given number
- calculating simple addition and subtraction problems
- solve problems, including doubling, halving and sharing
- describe shapes, spaces, and measures

Our principal focus of mathematics teaching in **Key Stage 1 and 2** is to enable pupils to develop the skills to;

- develop confidence and mental fluency with whole numbers, counting and place value
- work with numerals, words and the four operations, including with practical resources (e.g. concrete objects and measuring tools)
- develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary
- use a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money
- know the number bonds to 20 and be precise in using and understanding place value
- practice/use/apply skills to aid fluency
- read and spell mathematical vocabulary, at a level consistent with their reading/spelling skills/knowledge

Our principal focus of mathematics teaching in **Key Stage 3** is to enable pupils to develop the skills to:

- continue to consolidate their skills achieved within Key Stage 2
- become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value
- ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers
- develop their ability to solve a range of problems, including with simple fractions and decimal place value
- draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them
- can use measuring instruments with accuracy and make connections between measure and number
- show precision and fluency in their work
- read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling

Our principal focus of mathematics teaching in **Key Stage 4** is:

- To help teachers ensure a broad, balanced and flexible curriculum for all pupils, particularly those working within Pre-National Curriculum levels, by linking their learning objectives to age-appropriate mathematics
- To encourage the pupils to demonstrate their mathematical skills in a range of contexts and for various purposes
- To further develop and recognise the ability of learners to apply and transfer skills in ways that is appropriate to the situation

- To provide pupils with a more functional programme of learning to incorporate classroom-based, school-based and community-based activities
- To enable all learners at Curnow to use mathematics in ways that makes them effective and involved as citizens, able to operate confidently in life and to work in a variety of contexts
- To enable progression and consolidation of skills for all pupils across all strands of mathematics
- To provide access to maths and ensure progression through a scheme of work that fits the needs of all our pupils
- To encourage focus on teaching increased independence skills in mathematics in preparation for Key Stage 4

Our principal focus of mathematics teaching in **Post 16** is to ensure that student's maths will be developed through a more functional approach and as such is woven through the three strands of our Post 16 curriculum offer (long term planning established). This will be additionally delivered through a daily core skills session across all class settings with individual targets from taken from the Curnow Maths assessment framework. There will be a focus on ensuring that prior knowledge and understanding continues to be developed and built upon and through the identification of key targets there will be a focus on using and applying and generalising skills. Through such means the aims of our Maths offer will weave through all areas of the curriculum to underpin the aims determined by the school.

**The aims of such sessions are to help students within Post 16 to:**

- understand a situation and choose an approach to tackle the problem
- formulate a model using mathematics
- use mathematics to provide answers
- interpret and check the results
- evaluate the model and approach
- explain the analysis and results
- apply and adapt this experience in other situations as they arise

The aim for our **L2L** pupils is to encourage them to learn the skills and concepts they need and simultaneously learn how to acquire, link and take ownership of new skills and concepts in the future within the area of Cognition and Learning. The specific activities and content used in this process will vary with pupils' sensory and other abilities, their ages, strengths and preferences.

The teaching of Maths is delivered through the L2L curriculum and addressed through a personalised learning plan designed using assessment/observation outcomes (personalised learning plans will be delivered daily via the class timetable. The maths curriculum for L2L pupils is based on the Les Staves – Very Special Maths, which links to the numeracy strategy areas and ensures pupils learn at an appropriate pace and with breadth. Through such means the National Curriculum becomes the 'vehicle' for structured teaching/learning sessions which focus on the development/further development of essential skills/concepts for each pupil. This process and all subsequent assessment ensure teachers develop pupils' new knowledge and skills (next steps/targets) building on what has already been taught before ensuring learning is sequenced via small steps.

We aim to:

- Develop a secure foundation through learning and development opportunities which are planned around the needs and interests of each individual child

- Benefit from robust assessment opportunities where progress is measured and reviewed regularly through daily assessment sheets, photos and video evidence
- Access quality of opportunity and anti-discriminatory practice, ensuring that every child is included and supported

## **IMPLEMENTATION**

The scheme of work used at Curnow school addresses key aims (intent) outlined for each key stage (Appendix A).

We use the Math mastery approach (Appendix B) and this is defined as:

- A mathematical concept or skill has been mastered when a pupil can represent it in multiple ways, has the mathematical language to communicate related ideas, and can independently apply the concept to new problems in unfamiliar situations.
- Mastery is a journey and long-term goal, achieved through exploration, clarification, practice and application over time. At each stage of learning, pupils should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time.
- This is not about just being able to memorise key facts and procedures, which tends to lead to superficial understanding that can easily be forgotten. Pupils should be able to select which mathematical approach is most effective in different scenarios.

## **IMPACT:**

The impact of our curriculum offer will encourage all pupils are able to use mathematical skills and language confidently and appropriately within their everyday life to support their independence and ability to solve problems, development of life skills including where appropriate within the world of work.

To evaluate the effectiveness of our Mathematics curriculum and use the information obtained to inform future learning we need to monitor and measure the impact of it to ensure it meets its fundamentals aims of securing pupil progress over time; to focus in on this aspect Curnow School will:

- Ensure the mathematics curriculum offer and implementation of it through the class timetable is broad, balanced and relevant and links to statutory requirements.
- Monitor the quality of teaching, learning and assessment via lesson observations/learning walks to ensure teaching is engaging, highly responsive to children's needs and all learning remains personalised
- Monitor the effectiveness (impact) of personalised learning pathways identified and how they inspire pupils to learn which demonstrates an ethos of continual improvement identifying appropriate measures to 'close the gap' if/as necessary (school data sets)
- Ensure formative and summative assessment is accurate (informs next steps) and based on high quality observation/evidence.
- Ensure assessment outcomes provide evidence of lateral learning as well as linear learning
- Record the achievements of all pupils equally
- Measure, assess and record the progress of each pupil in a systematic way, to ensure that each pupil achieves his or her full potential
- Monitor pupils personalised learning offer as reflected within their timetable ensuring pupils are set challenging goals within each aspect of it using assessment data which informs future target setting
- Ensure learning is part of a well-planned sequence

- Monitor standards of pupil achievement via the moderation process embedded across our schools
- Monitor the qualitative data (e.g. – parent survey and where appropriate pupil survey) to ensure parents are happy with the quality of education received by their child

### **IMPACT (pupil):**

- Pupil make progress and are challenged within their learning.
- Pupils can use and generalise mathematical knowledge and understanding confidently within their day to day lives.
- Pupils progress well from their different starting points within the key skills of mathematics; learning remains sequential
- Pupil progress builds upon prior knowledge and understanding (their current skills/abilities) and prepares them well for their next stage; next steps secure challenge within all learning
- Pupil's enjoy their learning and engage well

### **Monitoring and review**

It will be the responsibility of the teachers, Subject Leader and Leadership Team to ensure the area of Mathematics is monitored and reviewed to make sure the delivery of Mathematics maximises learning by providing richness, breadth, balance in knowledge, skills and direct experiences in a way relevant to each individual and their own lives.

The Subject Leader will monitor the policy on a biennial basis as part of the School Self Evaluation Policy and Guidelines. Additionally, the subject leader will monitor the impact of the provision by examining the data on pupil progress alongside the SLT of the school and Governors. The subject leader will detail any actions which may be required to address any issues/concerns to enable the teaching staff at Curnow to 'close the gap' within pupils' learning/achievement either raised by an individual teacher through the tracking system or on examination of end of year data collection.

### **Guidelines**

There are different responsibilities for staff members in the delivery of Mathematics.

#### **1 Responsibility of Teachers**

- 1.1 Plan for progression
- 1.2 Use the scheme of work and the relevant assessment tool to plan Mathematics into Medium- and Short-Term Plans
- 1.3 Plan for individual needs and differentiate work and materials
- 1.4 Record pupils' progress using EHCP targets, Cherry garden EYFS assessment, Curnow Maths assessment framework data and individual record systems as appropriate.
- 1.5 Provide appropriate information to the Subject Leader
- 1.6 To maximise opportunities to help develop ICT in Mathematics
- 1.7 To carry out any appropriate risk assessment associated with Mathematics

#### **2 Responsibility of Subject Leader**

- 2.1 Monitor the teaching of the subject by completing a yearly audit which will examine subject delivery and provide actions resulting from data analysis. This will ensure

- curriculum coverage across the whole school and continuity and progression in the subject
- 2.2 Support colleagues in planning, teaching styles, use of resources
  - 2.3 Monitor and evaluate Mathematics across the school as part of the School Self Evaluation Policy and Guidelines and lesson observations/learning walks. Review of termly lesson observations will inform school or individual actions.
  - 2.4 Monitor pupils' progress using EHCP targets, Cherry garden EYFS assessment, Curnow Maths assessment framework data formative and summative assessment data
  - 2.5 Provide appropriate information on Mathematics to the Governors of the school
  - 2.6 Maintain the Mathematics Subject Leader's file in line with the agreed format
  - 2.7 Monitor the Mathematics policy document annually as part of the School Self Evaluation Policy and Guidelines

### **3 Responsibility of the Senior Leadership Team**

- 3.1 Ensure adequate resources
- 3.2 Ensure access to training for the Mathematics Subject Leader
- 3.3 Ensure access to training for teachers and support staff
- 3.4 Have an overview of the subject area
- 3.5 Use EHCP targets, Cherry garden EYFS assessment, Curnow Maths assessment framework to identify any student within the school who requires additional support within any area of maths and use this to set performance management targets for each teacher allowing the school to 'close the gap' for individuals.

### **4 Responsibility of Governors on the Teaching, Learning and Assessment Sub Committee**

- 4.1 To monitor the delivery of Mathematics through reports from the Subject Leader
- 4.2 To approve the Mathematics policy and any subsequent updates.

### **5 Resources**

- 5.1 Resources will be purchased to underpin the effective teaching delivery of Maths by the subject co-ordinator. A resource allocation will be made by the Leadership and Management Sub Committee of the Governing Body each year and will detail the budget awarded. Allocations for maths spending will come directly from the Lower School/Upper School budget allocation, spending will be sanctioned by the head of Lower/Upper School.
- 5.2 Resources can be found in every classroom within the school, and teacher resource area. The class teacher will identify if anything is running out or needs replacing due to general wear and tear. Additional resources may need to be obtained by faculties for specific activities.

### **6 Assessment and Recording**

- 6.1 Pupils will be assessed using the developmentally appropriate assessment system each Term each year. Each area of maths will be formally assessed and moderated through the SPT's assessment cycle. The evidence for each pupil will be kept in their individual evidence files and teachers will use the gathered data to inform individual interventions where necessary.
- 6.2 Pupils within the Post 16 classes will be additionally assessed using the learning outcomes identified within the ASDAN Personal Progress and Personal and Social

Development modules of work (in accordance to accreditation pathways which secure all modules addressed hold meaning/challenge for each student)

6.3 Recording and reporting will follow the agreements outlined in the schools 'Planning, Assessment, Recording, Reporting and Celebrating standards (PARRCs) policy

## **7 Delivery**

7.1 We will strive for excellence in the teaching delivery of Mathematics by:

- The quality of learning which pupils' experience
- The quality of teaching that we provide
- The richness of the environment in which they learn

7.2 The Mathematics Curriculum will use whatever specialist techniques and teaching approaches, which motivate, support the needs, or improve the access of any individual. Teachers will therefore look at matching their teaching approaches to individual pupil's learning styles and principles informed via the maths mastery approach.

## **8 Delivery of subject**

8.1 Mathematics will be taught in a range of settings within the school.

- Timetabled Maths lessons
- Whole class, small group and individual teaching
- Linked to every other subject, including play-based learning where appropriate.
- Planned teaching sessions outside of the school environment – e.g. – supermarket/swimming baths etc (Functional maths)
- Personalised maths registers for each pupil addressed throughout the teaching day/week

## **9 Planning**

9.1 Teachers will follow the scheme of work for Mathematics. It will be the responsibility of the Maths Subject Leader to ensure this scheme of work accurately reflects the learning needs of the pupils and follows the curriculum ethos for each Faculty.

## **10 Accreditation**

10.1 Pupils and students in Curnow Upper School (Key Stage 4 and Post 16) will have the opportunity to undertake accredited units of work within the ASDAN Personal progress and Personal and Social Development modules of work and AQA Entry Level maths where appropriate. Teachers will determine on an individual basis the appropriateness of each unit based on pupil/student need ensuring these add value to individual learning.

10.2 The awards obtained by the pupils will be formally presented during the annual Record of Achievement day in the Summer Term.

## **11 Equal Opportunities**

11.1 Teachers will ensure that provision reflects Cultural Diversity, Ethnicity, Religion, Gender, Ability, Disability and Age.

## 12 Health and Safety

12.1 All staff should always ensure the health and safety of all pupils and staff.

<b>Policy approved by the Local Governing Body</b>	June 2023
<b>Policy to be reviewed</b>	Every Year
<b>Responsibility</b>	Subject coordinator and Head Teacher



## Appendix A

### EYFS Long Term Planning

MATHS - Long Term Planning/Year	Autumn	Spring	Summer
<b>EYFS</b>	<p>All EYFS planning is led by the interests of the children or by current and relevant events and celebrations. Therefore planning is completed on a 2 weekly cycle and is reactive rather than long term. However, each child has their individual progress tracked across the year at tri-annual assessment weeks and weekly planning sets individual targets through the use of the Cherry Garden assessment to ensure that all teaching and learning is delivered at an appropriate level and takes learning to the next level.</p>		

### Key Stage 1 and 2 Long Term Planning

- Long term planning will follow set modules of work designed by the school in each of the areas outlined in the table below; all learning will be fully differentiated to not only meet the needs of each learner but additionally provide suitable challenge. The planning document, supported by the B Squared: Progression steps assessment tool, will determine the learning outcomes being pursued within the P levels and early NC levels and will be identified through previous learning challenges presented and outcomes of all assessments.*

	AUTUMN	SPRING	SUMMER
<b>YEARS 2,3,4, 5 and 6</b>	<ul style="list-style-type: none"> <li>• Number and place value (4 weeks)</li> <li>• Measure: weight and volume (2 weeks)</li> <li>• Number: addition and subtraction (4 weeks)</li> <li>• Geometry – Shape (2 weeks)</li> </ul>	<ul style="list-style-type: none"> <li>• Number: addition and subtraction (3 weeks)</li> <li>• Measure: Temperature (1 week)</li> <li>• Number and place value (2 weeks)</li> <li>• Geometry: Shape (2 weeks)</li> <li>• Measure – Length and height (2 weeks)</li> <li>• Number and place value (2 weeks)</li> </ul>	<ul style="list-style-type: none"> <li>• Number: Multiplication and division (3 weeks)</li> <li>• Measurement - Money (1 week)</li> <li>• Number: Place value (2 weeks)</li> <li>• Geometry: Position and direction (2 weeks)</li> <li>• Number: Fractions (1 week)</li> <li>• Measure – Time (2 weeks)</li> </ul>

### Key Stage 3 Curnow School - Long Term Planning

- Long term planning will follow set modules of work designed by the school in each of the areas outlined in the table below; all learning will be fully differentiated to not only meet the needs of each learner but additionally provide suitable challenge. The planning document, supported by the B squared Progression steps assessment tool, will determine the learning outcomes being pursued within the B levels and will be identified through previous learning challenges presented and outcomes of all assessments. Planning will become increasingly functional recognising the age as well as the stage of development of each learner.

	AUTUMN	SPRING	SUMMER
<b>YEARS 7,8 and 9</b>	<ul style="list-style-type: none"> <li>• Number and place value (3 weeks)</li> <li>• Addition and subtraction (2 weeks)</li> <li>• Geometry – Properties of shape (3 weeks)</li> <li>• Measure – money (2 weeks)</li> <li>• Number: Place value and statistics (2 weeks)</li> </ul>	<ul style="list-style-type: none"> <li>• Number: addition and subtraction (3 weeks)</li> <li>• Measurement: Length and height (2 weeks)</li> <li>• Number: Place Value (2 weeks)</li> <li>• Measure: Temperature (1 week)</li> <li>• Geometry: Shape</li> <li>• Measurement – Weight and Volume (2 weeks)</li> </ul>	<ul style="list-style-type: none"> <li>• Number: Multiplication and division (3 Weeks)</li> <li>• Measure: Money (2 weeks)</li> <li>• Number: Fractions (2 weeks)</li> <li>• Geometry: Position and direction (2 weeks)</li> <li>• Number: Statistics (1weeks)</li> <li>• Measurement: Time (2 weeks)</li> </ul>

### Key Stage 4 and Post 16 Curnow School - Long Term Planning

- Long term planning will follow set modules of work designed by the school in each of the areas outlined in the table below; all learning will be fully differentiated to not only meet the needs of each learner but additionally provide suitable challenge. The planning document, supported by the B squared: Adult curriculum assessment tool, will determine the learning outcomes being pursued within the M levels and will be identified through previous learning challenges presented and outcomes of all assessments. Planning at this stage will be supplemented by the key stage 4 modules of work outlined in the Key Stage 4 long term planning documents and will become increasingly functional in learning outcome and delivery, recognising both the age and the stage of development of each learner.

### Post 16 rationale:

Functional Maths will be delivered in two ways: through daily core/basic skills sessions and within modules of work in all areas of the curriculum which are planned for the school week/term/year. Individual targets/learning outcomes will be used making clear reference to the adult B squared; through such means we can ensure our target setting is fully informed by previous assessment and all learning provides challenge (next steps).

### Mathematical areas addressed (learning outcomes determined by the Curnow assessment framework):

- Number
- Measure and geometry
- Handling Data

The timetable for the delivery of Maths for students within Key Stage 4 and Post 16 is outlined in the long term planning grid under the module headings, differentiation is provided by the use of the Curnow assessment framework.

### Appendix B – Maths Mastery approach

