John Burns Primary School

Maths Policy

June 2026

Agreed by Governing Body	Summer 2026
Signatory (Chair of Curriculum Committee)	
Date of next Review	**Summer 2027**

Maths Policy 2026

Introduction

Mathematics is important in everyday life. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a positive and enthusiastic attitude towards mathematics that will stay with them.

The **National Curriculum 2014** states that:

'Mathematics is a creative and highly interconnected 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 for science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.'

Aims

This policy outlines what we are aiming to achieve in respect of pupils' mathematical education. It also describes our agreed approach to the planning, delivery and assessment of the mathematics' curriculum.

Our aim is to provide children with the understanding, skills, knowledge and application to become fully numerate.

The National Curriculum 2014 identifies what primary pupils need to do in order to be numerate:

- Become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

- **Reason** mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

- Can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

John Burns Primary School refers to the maths curriculum as comprised of four departments:

1) Early Years Foundation Stage (EYFS) — *Nursery and Reception*
2) Key Stage 1 (KS1) — *Year 1 and Year 2*
3) Lower Key Stage 2 (Lower KS2) — *Year 3 and Year 4*
4) Upper Key Stage 2 (Upper KS2) — *Year 5 and Year 6*

1) **EYFS**

The EYFS at John Burns Primary School consists of nursery and reception children where objectives are set using the statutory Early Years Foundation Stage Profile Handbook (2022).

Children's understanding of number and numerical patterns is supported using the Birth to Five Matters non-statutory guidance (range 1-6 for age and stage).

In addition, children are given the opportunity to solve problems, make decisions, experiment, predict and plan in a variety of contexts, whilst recording their mathematical learning. Pupils are encouraged to spot patterns and investigate using manipulatives and representations.

Target Tracker holds assessment information for children in nursery and reception. Evidence of children's progress is gathered through photographs, pictures and recordings of their mathematical play, as well as formal examples of adult-led maths tasks.

The National Curriculum sets out the statutory entitlement to learning for all pupils in each Key Stage. The programmes of study set out what children should be taught.

2) Within **KS1** there are four sections within the corresponding Programme of Study:

- Number (Place Value, Calculations and Fractions)
- Measurement
- Geometry (Properties of Shapes and Position and Direction)
- Statistics

3) Within **Lower KS2** there are four sections within the corresponding Programme of Study:

- Number (Place Value, Calculations and Fractions)
- Measurement
- Geometry (Properties of Shapes and Position and Direction)
- Statistics

4) In **Upper KS2** there are six sections within the corresponding Programme of Study:

- Number (Place Value, Calculations and Fractions)
- Measurement
- Geometry (Properties of Shapes and Position and Direction)
- Statistics
- Ratio and Proportion
- Algebra

Principles of Teaching and Learning

All teachers must have an in-depth knowledge and understanding of the **Early Years Foundation Stage Profile Handbook 2022** and the **National Curriculum 2014** (as applicable to their teaching

commitment) and their year group's termly plans in order to fulfil the aims and objectives of this policy.

Early Years and Foundation Expectations - Early Years Foundation Stage Profile Handbook 2022

Number:

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns:

Children at the expected level of development will:

Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Key Stage One Expectations - National Curriculum 2014

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools].

At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Lower Key Stage Two Expectations - National Curriculum 2014

The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers. At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop

mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.

Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

Upper Key Stage Two Expectations – National Curriculum 2014

The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio. At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages. Pupils should read, spell and pronounce mathematical vocabulary correctly.

National Curriculum 2014

It is also the intention of John Burns Primary School to build on the National Curriculum objectives by helping teachers to deliver excellent teaching by:

- Obtaining deeper understanding of all aspects of maths teaching.
- Provide daily oral, mental and written starters (including counting and times table recall) to develop and secure pupils' calculation. Demonstrate, explain and illustrate mathematical ideas, making links between different topics in mathematics and between mathematics and other subjects.
- Question pupils effectively, targeting individuals to take into account their attainment, giving them time before answering and asking them to demonstrate and explain.
- Involve pupils and maintain their interest through appropriately challenging work matched to how well they have grasped a concept within a lesson.
- Support learning through applying the CPA (Concrete, Pictorial and Abstract Approach) at all levels of new learning.

The focus on the development of pupil's spoken language is a crucial element in every mathematics lesson. In order to become able mathematicians, children need to develop the ability to discuss and

justify mathematical strategies and concepts. Daily opportunity for oracy, including high quality discussion through modelling, talk partners and sentence starters, allow children to be able to effectively articulate their thinking. Furthermore, children need to be able to communicate and explain their reasoning as well as use the correct mathematical vocabulary appropriately. Each new topic, and every lesson, summarises and defines mathematical vocabulary to be used within the lesson to promote mathematical development. Teachers are expected to model and promote the use of mathematical vocabulary, thus allowing pupils to develop their own mathematical vocabulary and reasoning skills. See *Rising Stars Mathematical Vocabulary Checklists* for guidance.

'They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.'

National Curriculum 2014

Mathematics Teaching

A dedicated daily mathematics lesson is planned in each class, which will last for an hour in KS1 and KS2. In EYFS classes mathematics teaching is spread throughout the day.

The pupils in each year group in KS1 and KS2 are taught in attainment sets and are provided with differentiated activities to ensure tasks are set according to their individual needs, allowing for flexibility within the lesson.

A typical daily mathematics lesson in Year 1 to 6 will usually be structured as follows:

- Oral work and mental calculation (about 5 to 10 minutes). This will involve whole-class work to rehearse, sharpen and develop mental and oral skills.
- The main teaching activity (about 30 to 40 minutes) This will include both teaching input and pupil activities and a balance between whole class, grouped, paired and individual work.
- A plenary (about 10 minutes). This will provide an opportunity for assessment, both self and teacher, through well-structured Assessment for Learning (AfL) questions. Children take this time to reflect on their own learning and consider next steps.

All pupils are entitled to a broad mathematics curriculum in which their learning needs are identified and met. Pupils should experience a range of practical and written activities on number, measurement, geometry and statistics.

Appendix 1, 2 and 3 outline the maths yearly overview and programmes of study for each department (KS1, Lower KS2 and Upper KS2) and year group (Year 1 – Year 6).

Classrooms should be rich in discussion between pupils and between teacher and pupils. Some facts will need to be memorised, others will need to be practised but underpinning all of this will be the development of mathematical reasoning and understanding through exploration, problem solving and investigation.

Adaptive Teaching

Children are usually placed in groups of similar ability for maths lessons. There is flexibility within these groups so that a child may work with another group if their performance suggests that it would be beneficial for them.

Every child will have a similar learning objective with a common theme. Appropriate tasks will be set, with every child being able to successfully complete some questions or activities. Each child will also be challenged at their level.

Tasks are flexible depending on whether a child has grasped a concept within a lesson. It is important that children are not given a specific task based solely on their success in other maths lessons, as all pupils find that there are certain aspects of mathematics that they find easier or more difficult. Every pupil has the opportunity to access the trickiest problems if they are able; no child's success is capped because they can only attempt specific tasks.

Some children will be supported by the teacher and/or teaching assistant, while others will work independently. Groupings are flexible and all children have access to staff.

Depending on the needs of individual children, further support or intervention will be provided. This intervention might be in the form of pre-teaching, individual support or small group work.

Inclusion

Maths at John Burns Primary School is designed to be inclusive and accessible for all, responding to the pupil's diverse needs and overcoming potential barriers to learning for individuals and groups. Quality-first teaching is provided and teachers adapt their planning to meet the needs of all children.

In many cases, the action necessary to respond to an individual's requirements for curriculum access will be met through greater differentiation of tasks and materials. A smaller number of children may need access to specialist equipment and approaches or to alternative or adapted activities.

Not all children with disabilities will necessarily have special educational needs. Many children with disabilities learn alongside their peers, with little need for additional resources beyond the aids which they use as part of their daily life e.g. wheelchair, hearing aid or equipment to aid vision. We ensure that any child with a disability is enabled to participate as fully and effectively as possible, within the National Curriculum and the Statutory Assessment Arrangements.

Children for whom English is an additional language have diverse needs in terms of support necessary in English language learning. Planning should take account of factors such as:

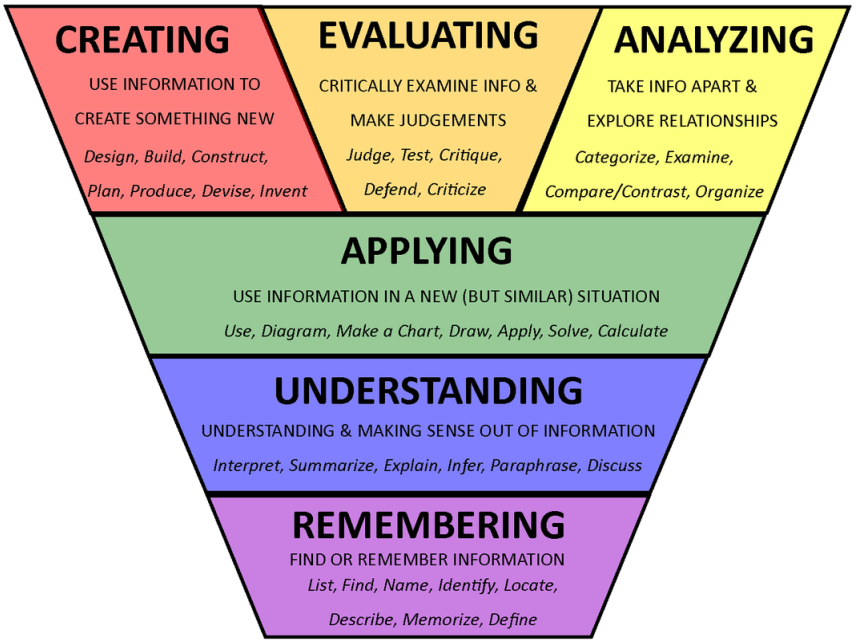
- the child's age
- length of time in this country
- previous educational experience
- skills in other languages

High Achievers in Maths

Within the daily maths lesson, teachers not only provide activities to support children who find mathematics difficult but also activities that provide appropriate challenge for children who are high achievers in maths.

High achievers in maths will be challenged to carry out investigations and solve problems that involve them applying their skills in a range of contexts. The focus of the national curriculum is on breadth of understanding rather than moving onto objectives from the next year group.

Mathematics is experiential and therefore stages in the progression in learning should not be missed out. Able pupils may be extended to delve deeper into their understanding of mathematics by applying their higher order thinking skills (see diagram below).



All children, despite ability, should work longitudinally with their band objectives to ensure the deep understanding of maths, rather than skipping year group objectives. It is important that all children receive a balanced and progressive curriculum. It is essential that a pupil covers all areas of maths within the band they are on and achieves secure before progressing to the next band.

Equal Opportunities

We incorporate Mathematics into a wide range of cross curricular subjects and seek to take advantage of multi-cultural aspects of mathematics (See *Appendix 4 – Cross-Curricular Skills and Links*).

In the daily maths lesson, we support children with English as an additional language in a variety of ways. For example, repeating instructions, speaking clearly, emphasising key words, using picture cues, playing mathematical games, encouraging children to join in counting, chanting, finger games, rhymes, etc.

Some lessons provide open ended tasks where differentiation will be by outcome. Lessons are prepared from a variety of sources rather than one particular scheme.

Learning Environment

It is important that the classroom environment supports both the teaching and learning of mathematics. Teachers are provided with a checklist of non-negotiables for their maths environment from Nursery to Year 6.

Within each class mathematical vocabulary, relevant to the year group, is displayed and referred to regularly during mathematics lessons. See *Rising Stars Mathematical Vocabulary Checklists* for each year group. Displays are used to promote a positive and inquisitive attitude towards mathematics in the school.

The school aims to provide a mathematically stimulating environment:

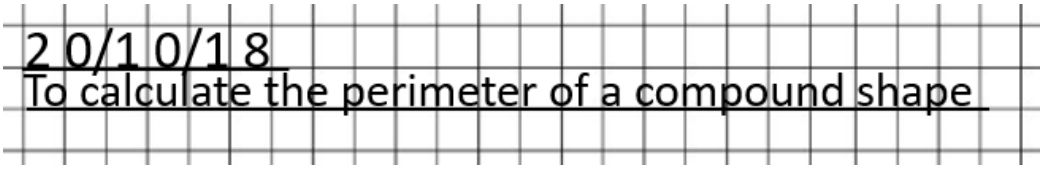
- through the development and use of working walls to support learning and teaching in a lesson or series of lessons
- through interactive displays that promote mathematical thinking and discussion
- through displays of pupil work that celebrate achievement in order to encourage a positive attitude and enthusiasm towards mathematics for all groups of children
- by providing a good range of resources for teacher and pupil use

Maths Exercise Books

Pupils in the Foundation stage use a variety of media but most of the work is practical. Maths activities and evidence is recorded in each child's Learning Journal.

All pupils in KS1 and KS2 use a pencil for mathematical calculations and squared exercise books to aid the setting out of calculations. In Years 1-2 written work is completed in 10mm squared blue exercise books and in Years 3-6 written work is completed in 7mm squared blue exercise books. The short date is used in maths books and precedes the daily learning intention. Both the short date and learning intention must be underlined using a ruler. Children must adopt one digit per square.

e.g.



Maths books are regularly scrutinised by members of the senior leadership team. A minimum of three pieces of written work must be recorded in exercise books for KS1 and KS2 pupils per week.

Marking and Feedback

Staff use success criteria, peer marking and peer and self-assessment to involve pupils in their learning and to inform them of their next steps. Marking should be against the learning intention and should identify successes and areas for improvement.

Our feedback marking (see Marking Policy) ensures that children know what they need to do to improve and what they have done well. Pupil's respond to marking using a purple pen, correcting any mistakes they have made or developing their thinking.

Resources

In order to support the delivery of maths lessons to all pupils, the school has a large and extensive range of resources available. Within the classroom children have maths resources available to use, such as place value cards, number lines, dice, 100 squares, multiplication table squares, 30cm rulers, protractors, place value counters, coins, dienes, numicon, etc. Each class is equipped with a range of mathematical resources and apparatus relevant to the year group of that class. Children are encouraged to select the resources they may need to encourage them to become confident and independent mathematicians.

Other specified resources (e.g. balance scales, metre sticks, weights and measures) are stored in the Music Room. Here equipment is stored in accessible and clearly labelled plastic containers. Equipment is freely available for teachers and teaching assistants to borrow as the lesson requires. The resources are audited, checked and updated.

Areas of need are monitored and equipment purchased in line with the maths action plan, which feeds into the School Improvement and Development Plan (SIDP).

Homework

Weekly maths homework is set in KS1 and KS2. In Years 1-2 maths homework is completed in 10mm squared green exercise books and in Years 3-6 written work is completed in 7mm squared green exercise books.

Tasks provide the opportunity for pupils to review and apply skills from current teaching and previous topics. This is set in accordance with the Homework Policy.

Multiplication Tables - Expectations

The national curriculum specifies that pupils should be taught to recall the multiplication tables up to and including 12x12 by the end of Year 4.

At John Burns Primary School, the progression and teaching of multiplication tables for each year group is as follows:

- Reception — 1/*10 multiplication tables and their corresponding division facts*
- Year 1 — *10/5/2 multiplication tables and corresponding division facts*
- Year 2 — *2/4/8 multiplication tables and their corresponding division facts*
- Year 3 — *4/8/3/6 multiplication tables and corresponding division facts*
- Year 4 — *Consolidation of Year 3 + 9/7/11/12 multiplication tables and their corresponding division facts*

- Year 5/6 *Revisit and revise all multiplication tables and their corresponding division facts. Use this knowledge to apply to decimal multiplication, e.g. 0.4 x 3.*

The teaching of multiplication table facts at John Burns is utilised during the oral starter (5-10 minutes) and consolidation should be part of the daily maths lesson thereafter across all areas of maths. Children should understand the multiplication table facts and related division facts. They should be able to explain methods used and patterns identified, using mathematical language.

All KS1 and KS2 classrooms have a class multiplication table tracker display. The tracker records each child's name and the most recent multiplication table that they have mastered.

A weekly times multiplication table test is administered by the class teacher and/or teaching assistant. In Years 2-6 weekly tests are recorded in the spelling/multiplication table book. Multiplication tables tests are recorded in the back of the book.

Multiplication Table Check (MTC)

The statutory multiplication table check (MTC) for pupils in Year 4, introduced in June 2020, takes place annually. The purpose of the MTC is to determine whether pupils can recall their times tables fluently, which is essential for future success in mathematics.

Assessment

Formative Assessment

Formative assessment is carried out by teachers every day in every maths lesson. This type of assessment is used to assess knowledge, skills and understanding, and is used to identify gaps and misconceptions. It enables teachers to identify when pupils are struggling, when they have consolidated learning and when they are ready to progress. It also enables teachers to identify if children are working at greater depth.

Summative Assessment

Teachers use PiXL assessment resources alongside other assessment material (e.g. White Rose Tests) to provide evidence of achievement against the national curriculum objectives for maths. Assessments take place each term.

Children who have not made expected progress or whom have fallen behind are targeted for interventions and rapid response work.

Target Tracker School Assessment

Children in Year 1 – Year 6 will be assessed using the national curriculum objectives which feature on our data package, Target Tracker. This is completed 3 times per academic year (autumn 2, spring 2 and summer 2).

Target Tracker adopts a numerical point and banding system for assessment in Mathematics.

Tracking points are used to track attainment and progress. The tracking point scale starts at 37. At the end of each year, if a pupil has attained a 'Secure' judgement, then they have met the expected standard for their age (See *Appendix 5 Target Tracker Banding and Points Equivalence*).

Staff are expected to analyse assessment results in preparation for Pupil Progress Meetings (PPM) which takes place with the SLT after each assessment period (once a term).

Nationally Standardised Summative Assessment

National Key Stage 1 Assessments

At the end of Year 2, pupils will be given teacher assessment standards in Mathematics.

Pupils will be assessed against criteria as follows:

- Mathematics - working below the expected standard.
- Mathematics - working at the expected standard.
- Mathematics - working at greater depth within the expected standard.

The pupils also sit tests which will consist of:

- Mathematics Paper 1 – arithmetic.
- Mathematics Paper 2 – reasoning.

These will be carried out in May in small groups and the children will receive a standardised score where 100 is the expected attainment.

National Key Stage 2 Assessments

Teacher Assessments

At the end of Year 6, pupils will be given teacher assessment standards in Mathematics.

Pupils will be assessed against criteria as follows:

- Mathematics - has not met the expected standard.
- Mathematics - working at the expected standard.
- Mathematics - working at greater depth.

The pupils also sit tests which will consist of:

- Mathematics Paper 1 – arithmetic.
- Mathematics Paper 2 – reasoning.
- Mathematics Paper 3 – reasoning.

National Curriculum Assessments

End of Key Stage Standardised Attainment Tests (SATs) are used to monitor children's progress and to identify strengths and weaknesses in the curriculum delivery of mathematics. The Senior Leadership Team (SLT) and Governors analyse the SATs results and consider the implications for the content and delivery of the curriculum in each key stage. This information is shared with staff.

End of Key Stage Assessments

Year 2 and Year 6 teachers set a range of work to enable them to assess the children's achievement against the requirements of the national curriculum. Some of this work is carried out under test conditions so that the staff can assess the effect this has on the pupils and the children become accustomed to the process. Teachers use the results from this work and the information in pupil's exercise books to assess progress and whether children at working below, at or above the expected standards for the end of the key stage.

Teacher assessments at KS1 and KS2 are sometimes moderated by the Local Authority. Internal moderation is used to validate teacher assessment across the school and takes place in staff meetings on a regular basis.

Accuracy and Consistency of Judgements

Moderation is necessary to ensure accuracy and consistency of teachers' judgements about standards. It is important to agree judgements if our decisions are to be given credence. Teachers will often share opinions informally with subject leaders and other colleagues to clarify judgements or for statutory teacher assessments. Staff meetings and Inset training days are arranged for teachers to compare judgements and agree standards in maths. John Burns also works with neighbouring primary schools to ensure that our judgements in maths are accurate and consistent.

Staff members attend training and local authority network meetings for maths to ensure they stay abreast of good practice. Feedback from this training is shared with staff so that we continue to develop and improve our practice.

Target Setting

At the beginning and end of the academic year percentages of pupils expected to meet or exceed the national standards in maths are set for children in EYFS to Year 6. Short term (next step) targets in maths are set in Early Years Foundation Stage (EYFS) and Year 1 – Year 6. They are reviewed regularly.

Foundation Stage Assessments

On entry to John Burns Primary School, the seven areas of learning are assessed using Birth to 5 statements to develop an initial overview of children's abilities and current level of attainment.

Maths is identified as a specific area of learning and is assessed across two areas:

- Number
- Numerical Patterns

These areas of learning are regularly assessed through both teachers and child-initiated activities in the form of observations and evaluations. Evidence and termly assessments are recorded in each child's Learning Journey book.

Assessment data is entered onto Target Tracker each term and progress tracked over the year. At the end of the Reception year children are assessed against both Maths Early Learning Goals (ELGs) as Emerging or Expected. These assessments are sometimes moderated by the Local Authority. The EYFS teacher meets with the SLT to discuss the children's progress at termly PPM meetings.

Records

Records of end of unit assessments, formative assessments, SATs results and teacher assessments (TAs) in maths are stored on Target Tracker.

Target Tracker records enable the class teacher to assess the progress made by each child and are an important part of the formative assessment needed for future planning. Annual end of year reports and parents' evening progress and attainment documentation is stored on the school server.

Reporting to Parents

Parents receive a written annual school report at the end of each academic year. SATs results for children in Year 2 and Year 6 and teacher assessments for mathematics in Year 1, 3, 4 and 5 are reported to parents at the end of the academic year. Parents of children in Reception receive a report based on the Early Learning Goals.

Parents' Evenings take place in the autumn and spring term. During these meetings teachers share the pupils' age-related attainment against national expectations, next step targets and the progress pupils have made to date.

Monitoring and Review

The mathematics subject leader monitors standards in maths across the school and feedback any concerns to the SLT. Monitoring might be carried out through planning, lesson observation, work scrutiny and pupil conferencing.

The maths subject leader generates and follows an annual action plan. The Headteacher is responsible for evaluating the work carried out in maths by the subject leader and progress against the agreed actions on the subject action plan.

The maths subject leader supports colleagues in the teaching of mathematics, is kept informed about current developments in the subject, and provides a strategic lead and direction for the subject in the school.

This policy should be read alongside the following policies:

- Calculations policy
- Assessment Policy
- Marking and Feedback policy
- Homework Policy

Roles and Responsibilities

The Senior Leadership Team hold teaching staff to account for pupil performance and progress through the monitoring of assessment data and performance management targets.

The maths subject leader generates and follows an annual maths action plan.

Class teachers are responsible for assessment of the children in their care and curriculum subject leaders are responsible for monitoring assessment within their subject area.

Support staff support children with their learning as directed by class teachers. They provide feedback on children's learning.

The Governing Body monitors whole school attainment and progress data.

Appendix 1 - KS1 Programme of Study/Yearly Overview

Year 1													
Autumn Term													
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**	**Week 13**	**Week 14**	**Week 15**
Place Value Comparing quantities and measure **NCP: 1NPV-1**	**Place Value** Composition of numbers 0-5 **NCP: 1NV-2**	**Place Value** Composition of numbers 6-10 **NCP: 1NV-2**	**Place Value** Composition of numbers 11-19 **NCP: 1NV-2**	**Geometry** Recognise and compose 2D shapes	**AS** Introduction to part-whole model **NCP: AS-1**	Consolidate/ Assessment	Consolidate/ Assessment	**AS** Aggregation and partitioning **NCP: 1AS-2**	**AS** Augmentation and reduction **NCP: 1AS-2**	**AS** Strategies within 10 **NCP: 1NF-1**	**AS** Strategies within 10 **NCP: 1NF-1**	**Place Value** Within 50	**Place Value** Within 50	Consolidate/ Assessment
Spring Term														
Place Value Multiples of 10 to 100 **NCP: 1NPV-1**	**Place Value** Multiples of 10 to 100 **NCP: 1NPV-1**	**Geometry** Recognise and compose 3D shapes	**Measure** Counting and unitising coins **NCP: 1AS-2**	**Measure** Counting and unitising coins **NCP: 1AS-2**	Consolidate/ Assessment		**Place Value** Composition of numbers 20-100 **NCP: 1NV-2**	**Place Value** Composition of numbers 20-100 **NCP: 1NV-2**	**Place Value** Multiples of 2, 5 and 10 **NCP: 1NF-2**	**AS** Consolidate	**Measure** Length and Height	**Measure** Weight and volume	Consolidate/ Assessment	
Summer Term														
Measure Money **NCP: 1AS-2**	**Measure** Money **NCP: 1AS-2**	**Fractions** Recognise and find half	**Fractions** Recognise and find quarters	**Fractions** Application	Consolidate/ Assessment		**MD** Reinforce counting in multiples	**Geometry** Position and direction	**Geometry** Position and Direction	**Measure** Time Sequencing Events	**Measure** Reading the time	**Measure** Dates/weeks /months/ years	Consolidate/ Assessment	

NCP = National Curriculum Priority

Year 2

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15
Place Value Composition of numbers 0-100 **NCP: 2NP-1**	**Place Value** Comparing and ordering Number-lines **NCP: 2NP-2**	**AS** Bridging 10 **NCP: 2NF-1** **NCP: 2AS-1**	**AS** Subtraction as difference **NCP: 2AS-2**	**AS** Add 1-digit and 2-digit numbers (within 100) **NCP: 2AS-3**	**AS** Subtract 1-digit from 2-digit number (within 100) **NCP: 2AS-3**	Consolidate/ Assessment	**MD** Repeated addition **NCP: 2MD-1**	**MD** Multiples of 2,5 and 10 **NCP: 2MD-1**	**MD/AS** Consolidate Application to problems	**Fractions** Recognise, read and write common fractions	**Fractions** Recognise equivalence	**Measure** Money Recognise and use symbols	**Measure** Money Application of addition and subtraction	Consolidate/ Assessment

Spring Term

Fractions Doubling and halving	**MD** Grouping problems **NCP: 2MD-2**	**Measure** Read and write the time	**Geometry** 2D-shapes Lines of symmetry **NCP: 2G-1**	**Geometry** Properties of 3D-shapes **NCP: 2G-1**	Consolidate/ Assessment		**AS** Add two 2-digit numbers (within 100) **NCP: 2AS-4**	**AS** Subtract two 2-digit numbers (within 100) **NCP: 2AS-4**	**Measure** Length and height	**Measure** Mass and capacity	**Geometry** Order and arrange patterns and sequences	**Geometry** Describe position, direction and movement	Consolidate/ Assessment	

Summer Term

SATS Revision	**SATS Revision**	**SATS Revision**	**SATS Revision**	**KS1 SATS**	**KS1 SATS**		**Fractions** Consolidate equivalent fractions	**Fractions** Comparing/ exploring fractions (*concrete*)	**Statistics** Data collection	**Statistics** Data presentation (*link to computing*)	**AS/MD** Application to real-life context	**Challenges and Problem solving skills**	**Challenges and Problem solving skills**	

NCP = National Curriculum Priority

Appendix 2 – Lower KS2 Programme of Study/Yearly Overview

Year 3													
Autumn Term													
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**	**Week 13**	**Week 14**	**Week 15**
Place Value 2-digit numbers NCP: 3NPV-1 NCP: 3NPV-2	**Place Value** Bridging 100 NCP: 3NPV-1	**Place Value** Identify, represent and estimate numbers	**Place Value** Compare and order 3-digit numbers NCP: 3NPV-2	**AS** Column Addition NCP: 3AS-1 NCP: 3AS-2	**AS** Column Addition NCP: 3AS-2	Consolidate/ Assessment	**AS** Additive relationship NCP: 3AS-3	**AS** Column subtraction NCP: 3AS-2	**AS** Column subtraction NCP: 3AS-2	**Fractions** Part-whole relationship NCP: 3F-1	**Fractions** Find, compare and order unit fractions NCP: 3F-2	**Fractions** Location of fractions within 1 NCP: 3F-2	**Measure** Add and subtract money	Consolidate
Spring Term														
MD Repeated addition and arrays	**MD** Concrete/ pictorial multiplication	**MD** Column multiplication	**Fractions** Add and subtract fractions NCP: 3F-4	**Fractions** Add and subtract fractions NCP: 3F-4	Consolidate/ Assessment		**MD** Contextual problems NCP: 3MD-1	**MD** Quotative and partitive division NCP: 3MD-1	**Measure** Measure, compare, add and subtract lengths	**Measure** Perimeter	**Geometry** Identify and draw 2D shapes NCP: 3G-2	**Geometry** Identify, draw and make 3D shapes	Consolidate/ Assessment	
Summer Term														
Measure Read and write the time	**Measure** Comparing time	**Measure** Timelines Roman Numerals	**Geometry** Common angles NCP: 3G-1	**Geometry** Common angles in shapes NCP: 3G-1	Consolidate/ Assessment		**Statistics** Interpret and present data in graphs and pictograms	**Statistics** Interpret and present data using bar charts	**Measure** Weight/mass	**Measure** Volume/ Capacity	**AS/MD** Application to real-life context	**AS/MD** Application to real-life context	Consolidate/ Assessment	

NCP = National Curriculum Priority

Year 4

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15
Place Value Value of digits in a 3 or 4-digit number **NCP: 4NPV-1** **NCP: 4NPV-2**	**Place Value** Ordering and comparing Rounding **NCP: 4NPV-3**	**Place Value** Counting through zero Scales/ Number lines **NCP: 4NPV-4**	**AS** Expanded addition Expanded Subtraction	**AS** Estimating and the Inverse 2-step problems	**Measure** Money (application of Addition/ Subtraction)	Consolidate/ Assessment	**MD** Connecting Multiplication and Division **NCP: 4NF-1** **NCP: 4MD-2**	**MD** Distributive and Commutative law **NCP: 4MD-2** **NCP: 4MD-3**	**MD** Division with remainders **NCP: 4NF-2**	**Fractions** Recognise, write and order fractions **NCP: 4F-1**	**Fractions** Working across one whole **NCP: 4F-1**	**Measure** Perimeter **NCP: 4G-2**	**Measure** Length	Consolidate/ Assessment

Spring Term

MD Partitioning leading to multiplication	**MD** Partitioning leading to division	**Measure** Area **NCP: 4G-2**	**Fractions** Improper fractions and mixed numbers **NCP: 4F-2**	**Fractions** Adding and subtracting fractions **NCP: 4F-3**	Consolidate/ Assessment		**Decimals** Recognise, write and count in tenths/ hundredths **NCP: 4MD-1**	**Decimals** Ordering and comparing Decimals Rounding	**Decimals** Scaling by 10 and 100 **NCP: 4NF-3** **NCP: 4MD-1**	**Geometry** 2D Shapes Properties **NCP: 4G-2** **NCP: 4G-3**	**Geometry** Lines of symmetry **NCP: 4G-3**	**Geometry** Reflection **NCP: 4G-1**	Consolidate/ Assessment	

Summer Term

Fractions Problems involving fractions and decimals	**Fractions** Revision	**Geometry** Coordinates **NCP: 4G-1**	**Geometry** Translation **NCP: 4G-1**	**Statistics** Bar charts and line graphs	**Statistics** Pictograms, tables and other graphs		**AS/MD** Consolidation Application	**Measure** Weight/mass	**Measure** Volume/ capacity	**Measure** Time	**Geometry** Estimate and measure angles **NCP: 4G-1**	**Geometry** Draw angles **NCP: 4G-1**	Consolidate/ Assessment	

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Appendix 3 – Upper KS2 Programme of Study/Yearly Overview

Year 5													
Autumn Term													
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**	**Week 13**	**Week 14**	**Week 15**
Place Value Read, write, order and compare numbers to 1 million	**Place Value** Negative Numbers	**Place Value** Rounding Number problems	**AS** Part-part-whole	**AS** Column method for addition and subtraction	**MD** Factors, multiples, primes **NCP: 5NF-1** **NCP: 5MD-2**	Consolidate/ Assessment	**MD** Long multiplication **NCP: 5MD-3**	**MD** Short division **NCP: 5MD-4**	**AS/MD** Consolidate Application to problems	**FDP** Equivalent fractions Simplifying fractions **NCP: 5F-2**	**FDP** Common denominatio n	**FDP** Adding and subtracting fractions	**Measure** Converting between units of time	Consolidate/ Assessment
Spring Term														
FDP Tenths and hundredths **NCP: 5NF-2** **NCP: 5NPV-1** **NCP: 5NPV-2**	**FDP** On a number line **NCP:5NVP-3** **NCP:5NVP-4**	**FDP** Multiply and divide by powers of 10 **NCP: 5MD-1**	**Measure** Perimeter	**Measure** Area **NCP: 5G-2**	Consolidate/ Assessment		**FDP** Mixed numbers and improper fractions	**FDP** Linking Fractions and decimals **NCP: 5NPV-5** **NCP: 5F-3**	**FDP** Recognise % symbol	**FDP** Percentages as fractions Decimal fractions	**Geometry** Reflection Coordinates	**Geometry** Translation	Consolidate/ Assessment	
Summer Term														
FDP Calculate non-unit fractions of amounts **NCP: 5F-1**	**FDP** Multiplying whole numbers and fractions	**Geometry** 2D & 3D Shape Nets	**Geometry** Measure and draw angles **NCP: 5G-1**	**Geometry** Find missing angles	Consolidate/ Assessment		**Measure** Calculating Volume Capacity	**Measure** Weight/mass	**Statistics** Line graphs	**Statistics** Tables incl. timetables	**Measure** Converting between units	**AS/MD** Application to real-life context	Consolidate/ Assessment	

NCP = National Curriculum Priority

Year 6

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15
Place Value Read, write and compare numbers **NCP: 6NPV-1** **NCP: 6NPV-2**	**Place Value** Rounding Number lines **NCP: 6NPV-3** **NCP: 6NPV-4**	**AS** Column addition and subtraction	**MD** Long multiplication	**MD** Dividing by 2-digits **NCP: 6AS/MD–1**	**Geometry** 2D Shape Area and Perimeter	Consolidate/ Assessment	**AS/MD** Dividing by 2-digits Problem Solving **NCP: 6AS/MD-2**	**Fractions** Simplifying fractions and equivalent fractions **NCP: 6F-1**	**Fractions** Comparing fractions **NCP: 6F-2** **NCP: 6F-3**	**Fractions** Adding/ Subtracting Mixed numbers	**Measure** Converting units of time	**Number** Problems with two unknowns **NCP: 6AS/MD-4**	**Geometry** 3D Shape Volume	Consolidate/ Assessment

Spring Term

FDP Multiplying and dividing by integers	**FDP** Scaling by powers of 10 Linking FDP **NCP: 6NPV-3**	**FDP** Converting between FDP Percentages of amounts	**FDP** Problems involving fractions, percentages and decimals	**Geometry** Reflection and Translation Coordinates	**Geometry** 2D/3D Shapes Nets		**Statistics** Line Graphs Timetables Mean	**Statistics** Pictograms Pie charts	**Number** Problems involving Ratio **NPC: 6AS/MD–3**	**Measure** Converting units Weight/ Length	**Geometry** Measure and draw angles Find missing angles	**Geometry** Draw and compose shapes **NCP: 6G-1**	Consolidate/ Assessment	

Summer Term

Algebra Using formulae	**SATS** Revision	**SATS** Revision	**SATS** Revision	**KS2 SATS**		**Measure** Link to real life contexts Ratio *(recipe)*	**FDP** Fractions/ percentages of amounts x/÷ fractions	**AS/MD** Application to real-life contexts	**Algebra** Using formulae	**Statistics** Project on data collection/ presentation	**Challenges and Problem solving skills**	**Challenges and Problem solving skills**	

NCP = National Curriculum Priority

Appendix 4 - Cross-Curricular Skills and Links

At John Burns Primary School, we aim to provide creative learning opportunities and outcomes for mathematics across other subjects.

English

Mathematics contributes significantly to the teaching of English in our school by actively promoting the skills of comprehension, writing, speaking and listening.

Computing

The effective use of technology can enhance the teaching and learning of mathematics when used appropriately. When considering its use, we take into account the following points:

- Technology should enhance good mathematics teaching. It should be used in lessons only if it supports good practice in teaching mathematics.
- Any decision about using technology in a particular lesson or sequence of lessons must be directly related to the teaching and learning objectives for those lessons.
- Technology should be used if the teacher and/or the children can achieve something more effectively with it than without it.

Science

Almost every scientific investigation or experiment is likely to require one or more of the mathematical skills of classifying, counting, measuring, calculating, estimating and recording in tables and graphs. In science pupils will for example order numbers, including decimals, calculate simple means and percentages, use negative numbers when taking temperatures, decide whether it is more appropriate to use a line graph or bar chart, and plot, interpret and predict from graphs.

Art, Design and Technology

Measurements are often needed in art and design and technology. Many patterns and constructions are based on spatial ideas and properties of shapes, including symmetry. Designs may need enlarging or reducing, introducing ideas of multiplication and ratio. When food is prepared a great deal of measurement occurs, including working out times and calculating cost; this may not be straightforward if only part of a packet of ingredients has been used.

History, Geography and Religious Education

In History and Geography children will collect data by counting and measuring and make use of measurements of many kinds. The study of maps includes the use of co-ordinates and ideas of angle, direction, position, scale and ratio. The pattern of the days of the week, the calendar and recurring annual festivals all have a mathematical basis. For older children historical ideas require understanding of the passage of time, which can be illustrated on a time line, similar to the number line that they already know. Knowledge of Roman Numerals is part of the new maths curriculum and this is best covered during history lessons.

Physical Education and Music

Athletic activities require measurement of height, distance and time, while ideas of counting, time, symmetry, movement, position and direction are used extensively in music, dance, gymnastics and ball games.

Personal, Social, Health, Citizenship and Economic Education (PSHE)

Children will have the opportunity to learn about living in the wider world and understanding about money, its importance, VAT and gaining a basic understanding of enterprise. Pupils will also have the opportunity to learn about making an active contribution to their communities, e.g. charities/fund raising. As developing adults, children will learn that through money they will need to develop effective relationships, assume greater personal responsibility and keep themselves safe, in order to not get themselves into debt and understanding about 'credit'. For older children there are opportunities to understand debating and elections, with regards to mathematics and voting systems, statistics and the probability of winning an election.

Appendix 5 Target Tracker Banding and Points Equivalence

** Pre-Nursery	22-36 Within +	22-36 Secure	22-36 Secure	30-50 Beginning

** Pre-Nursery children join the school in January. These children have turned aged 3 during the autumn term and will spend 5 terms in Nursery. On entry they will be a minimum age of 36 months. Initial assessments may place them working below their chronological age. In the context of John Burns, the majority of these children join the school significantly below their age; targets are set to ensure that they make accelerated progress to enter the following academic year working in line with age-related expectations.

Nursery	30-50 Beginning	30-50 Beginning +	30-50 Within	30-50 Within +	30-50 Secure	30-50 Secure +

Reception	40-60 Beginning	40-60 Beginning +	40-60 Within	40-60 Within +	40-60 Secure Expected ELG	40-60 Secure + Exceeding ELG

	Band 1					
Year 1	Beginning 1b	Beginning + 1b+	Within 1w	Within + 1w+	Secure 1s	Secure + 1s+
	37	38	39	40	41	42

	Band 2					
Year 2	Beginning 2b	Beginning + 2b+	Within 2w	Within + 2w+	Secure 2s	Secure + 2s+
	43	44	45	46	47	48

	Band 3					
Year 3	Beginning 3b	Beginning + 3b+	Within 3w	Within + 3w+	Secure 3s	Secure + 3s+
	49	50	51	52	53	54

Band 4						
Year 4	Beginning 4b	Beginning + 4b+	Within 4w	Within + 4w+	Secure 4s	Secure + 4s+
	55	56	57	58	59	60

Band 5						
Year 5	Beginning 5b	Beginning + 5b+	Within 5w	Within + 5w+	Secure 5s	Secure + 5s+
	61	62	63	64	65	66

Band 6						
Year 6	Beginning 6b	Beginning + 6b+	Within 6w	Within + 6w+	Secure 6s	Secure + 6s+
	67	68	69	70	71	72