

Maths Curriculum Overview



Content

- Our 'Built for Blackrod' Curriculum
- Maths Intent
- Curriculum Processes
- Subject Long term plans
- Maths Progression
- Subject Overview and NC Coverage
- Assessment and Endpoints
- Cultural Capital Offer
- EYFS curriculum
- Maths initiatives



Our Curriculum

Built for...



Values

B L A C K R O D
Bravery Learning Aspiration Citizenship Kindness Respect Optimism Determination

At Blackrod Primary School we provide an ambitious, broad and balanced curriculum that is designed to meet the needs of all children. Our curriculum provides our children with meaningful experiences and opportunities with the knowledge and skills they need for life beyond Blackrod Primary School.

Our curriculum is organised and sequenced in a way that ensures the end points the children are working towards are clear. Our children acquire the knowledge and skills they need to accomplish the end points by building on what they have already learned.

Through our '*Built for Blackrod*' curriculum we are driven to create a positive school culture where diversity and equality is at the core. Social, Moral, Spiritual and Cultural development opportunities are woven throughout the curriculum and assemblies which incorporate the Rights of a Child, Fundamental British Values, Safety and the Equality Act 2010.

Our ambition is to develop the 'whole child', nurturing children's talents and celebrating their achievements and successes. Our values alongside our vision of 'A joy in learning and life' underpin all that we do at Blackrod Primary School.

Curriculum Intent

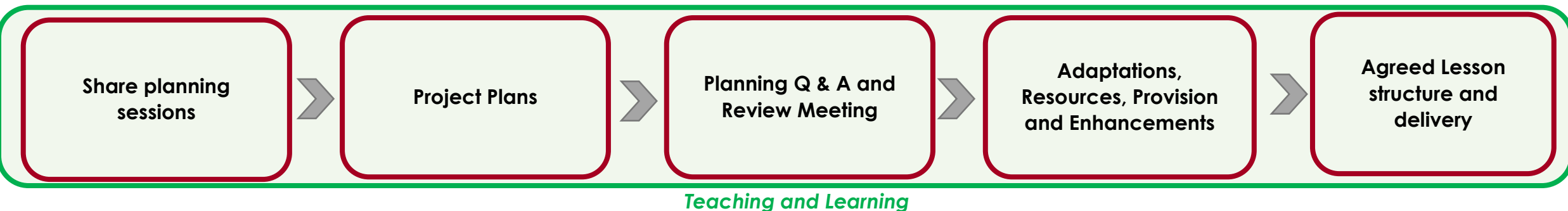
Curriculum Design Processes



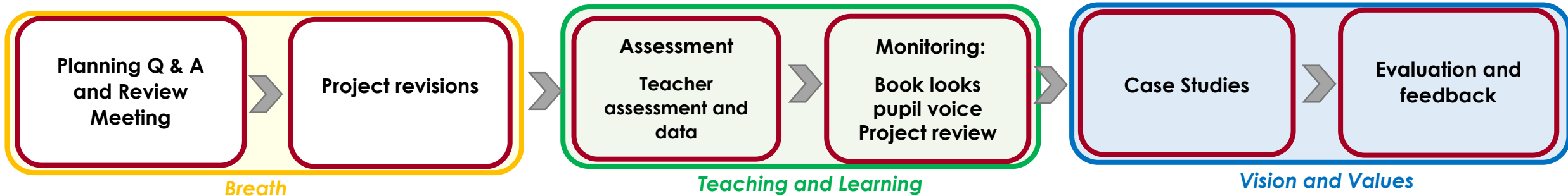
INTENT



IMPLEMENTATION



IMPACT



Maths Intent

At Blackrod Primary School, we aim to provide an ambitious, broad and balanced curriculum that is designed to meet the needs of all children. Our curriculum provides our children with meaningful experiences and opportunities alongside the knowledge and skills they need for life beyond Blackrod.

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 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.

Therefore, mathematics forms an important part of our curriculum where we endeavour to ensure that children develop an enjoyment and enthusiasm for maths that will stay with them throughout their lives and empower them in future life.

Maths Intent

The aims of our mathematics curriculum provision are to support children to:

Have rich and enjoyable experiences;

Develop positive and confident attitudes;

Reason mathematically by following a line of enquiry

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;

Develop the correct mathematical vocabulary;

Work independently and collaboratively;

Use and apply mathematical knowledge to real-life contexts;

Become fluent in the fundamentals of mathematics.

Our ambition is to develop the 'whole child', nurturing children's talents and celebrating their achievements and successes. Our values, alongside our vision 'A joy in learning and life,' underpin all that we do at Blackrod Primary School.

Our Curriculum Choice Rationale

Why we chose White Rose Maths

- **At Blackrod**, to ensure whole consistency and progression, we use the nationally recognised White Rose Maths scheme. The White Rose curriculum is a cumulative curriculum, so that once a topic is covered, it is met many times again in other contexts. For example, place value is revisited in addition and subtraction and multiplication and division.
- The curriculum is designed to have an emphasis on number, with a large proportion of time spent reinforcing number to build competency. Lessons are planned to provide plenty of opportunities to build reasoning and problem solving elements into the curriculum. When introduced to a new concept, children have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.
- Alongside this, children are encouraged to use pictorial representations. These representations can then be used to help reason and solve problems. Both concrete and pictorial representations support children's understanding of abstract methods.
- Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. These teaching blocks are broken down into smaller steps, to help children understand concepts better. This approach means that children do not cover too many concepts at once which can lead to cognitive overload.
- Each lesson phase provides the means for children to achieve greater depth, with children who are quick to grasp new content, being offered rich and sophisticated problems, within the lesson as appropriate. The school's status as a sustaining mastery school, as part of the DfE funded Maths Hubs programme, continues to ensure that staff at all levels understand the pedagogy of the approach.

EYFS

Long term Plans

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Getting to know you	Compare	Compare	Measure and patterns	It's me 1, 2, 3		Circles and triangles		1, 2, 3, 4, 5		Shapes with 4 sides	
Spring term	Alive in 5	Mass and capacity	Growing 6, 7, 8	Length, height and time	Building 9 and 10	Explore 3-D shapes						
Summer term	To 20 and beyond	Manipulate,	Sharing and grouping	Visualise, build and map								



BLACKROD PRIMARY SCHOOL



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value (within 10)					Number Addition and subtraction (within 10)					Geometry Shape	Consolidation
Spring	Number Place value (within 20)			Number Addition and subtraction (within 20)			Number Place value (within 50)		Measurement Length and height		Measurement Mass and volume	
Summer	Number Multiplication and division			Number Fractions		Geometry Position and direction	Number Place value (within 100)		Measurement Money	Measurement Time		Consolidation

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value			Number Addition and subtraction			Geometry Shape					
Spring	Measurement Money		Number Multiplication and division			Measurement Length and height		Measurement Mass, capacity and temperature				
Summer	Number Fractions			Measurement Time								

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value			Number Addition and subtraction			Measurement Area	Number Multiplication and division A			Consolidation	
Spring	Number Multiplication and division B			Measurement Length and perimeter		Number Fractions		Number Decimals A				
Summer	Number Decimals B		Measurement Money		Measurement Time		Consolidation	Geometry Shape		Geometry		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value			Number Addition and subtraction			Number Multiplication and division A					
Spring	Number Multiplication and division B			Measurement Length and perimeter		Number Fractions A		Measurement Mass and capacity				
Summer	Number Fractions B		Measurement Money		Measurement Time		Geometry Shape		Statistics		Consolidation	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value		Number Addition and subtraction		Number Multiplication and division A		Number Fractions A					
Spring	Number Multiplication and division B		Number Fractions B		Number Decimals and percentages		Measurement Perimeter and area		Statistics			
Summer	Geometry Shape		Geometry Position and direction		Number Decimals		Number Negative numbers		Measurement Converting units		Measurement Volume	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value			Number Addition, subtraction, multiplication and division				Number Fractions A		Number Fractions B		
Spring	Ratio		Algebra		Number Decimals		Number Fractions, decimals and percentages		Measurement Area, perimeter and volume		Statistics	
Summer	Geometry Shape		Geometry Position and direction		Application of skills: Problem Solving, logical reasoning and further algebra focus							

Maths planning examples

I do

The only factors of 5 are 1 and 5

5 is a prime number

1 row of 5

Integers that have exactly two factors are called **Prime Numbers**

We do

Is 6 a **prime number**? Use your counters to make arrays:

1 row of 6

2 rows of 3

1 and 6 are factors of 6

2 and 3 are also factors of 6

The factors of 6 are 1, 2, 3 and 6 so it is not a prime number.

Integers that have **more than two factors** are called **composite numbers**.

You do

Let's investigate

Using counters, make arrays

If you can't make another array than $1 \times ?$ Then it is a prime number

Make arrays with:

- 3 counters
- 4 counters
- 7 counters
- 8 counters

For each array, write:

The factors of ? are
so it is/is not a prime number.

We plan using the gradual release metacognitive model
I do - We do - You do

Maths Curriculum Guarantee



Quality First Teaching in Mathematics KS1 and KS2

Fluency – In order to practise 'declarative knowledge', we give the children daily chance to practise fluency of number facts and concepts to keep these fresh in their minds and allow regular practise and recall. This is currently done by using Flashback 4 questions – four daily questions plus a roman numeral to convert.

Projects - Projects are the main body of our maths sessions and allow the children to develop procedural methods and conditional knowledge and strategies. Children have opportunity to develop fluency in new concepts and have opportunity to practise and develop confidence before applying in more challenging contexts .

All children will undertake an assessment/'quiz' prior to each new project e.g. place value or time. Assessments will be either practical with teacher assessment of an agreed criteria or written assessments. This will determine what needs and support the children will receive for the project.

Assessments are to be marked by class teacher identifying key misconceptions for each child. The marking notes will be copied and shared with the key stage team so staff know the specific needs of the children they teach in maths lessons. This is repeated at the end of the project to review progress and identify next steps.

The key stage teachers will be accountable for the progress and data of the children in each year group.

Planning - Key Stage teams will plan together. High quality resources identified in the Planning Support folder to be used when planning number to support teaching sequence. Agreed Project and Essential Skills planning format to be used. Termly overviews will indicate approximate timings for each project.

Lowest 20% - Children working within the lowest 20% of the year group will receive additional high quality maths teaching for an agreed timescale based on the project.

SEND - Children with an identified SEND in mathematics have short intervention provision based on their needs from our Wave 3 offer.

Exemplar Curriculum Progressions



Place Value – counting

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count numbers to 100 in numerals; count in multiples of twos, fives and tens 	<ul style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward 	<ul style="list-style-type: none"> count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number 	<ul style="list-style-type: none"> count in multiples of 6, 7, 9, 25 and 1000 count backwards through zero to include negative numbers 	<ul style="list-style-type: none"> count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 count forwards and backwards with positive and negative whole numbers, including through zero 	
Autumn 1 Spring 1 Spring 3 Summer 4	Autumn 1	Autumn 1 Autumn 3	Autumn 1 Autumn 4	Autumn 1 Summer 4	

Addition and Subtraction - Problems

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> add and subtract one-digit and two-digit numbers to 20, including zero 	<ul style="list-style-type: none"> add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> a two-digit number and ones a two-digit number and tens two two-digit numbers adding three one-digit numbers 	<ul style="list-style-type: none"> add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones a three-digit number and tens a three-digit number and hundreds add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction 	<ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate 	<ul style="list-style-type: none"> add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) add and subtract numbers mentally with increasingly large numbers 	<ul style="list-style-type: none"> perform mental calculations, including with mixed operations and large numbers use their knowledge of the order of operations to carry out calculations involving the four operations
Autumn 2 Spring 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2

Multiplication and division - calculations

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs 	<ul style="list-style-type: none"> write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods 	<ul style="list-style-type: none"> multiply two-digit and three-digit numbers by a one-digit number using formal written layout 	<ul style="list-style-type: none"> multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers multiply and divide numbers mentally drawing upon known facts divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 	<ul style="list-style-type: none"> multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context perform mental calculations, including with mixed operations and large numbers
	Spring 2	Autumn 3 Spring 1	Spring 1	Autumn 3 Spring 1	Autumn 2

Fractions: Compare

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ 	<ul style="list-style-type: none"> recognise and show, using diagrams, equivalent fractions with small denominators compare and order unit fractions, and fractions with the same denominators 	<ul style="list-style-type: none"> recognise and show, using diagrams, families of common equivalent fractions 	<ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number 	<ul style="list-style-type: none"> use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions > 1
	Summer 1	Spring 3	Spring 3	Autumn 4	Autumn 3

Measures

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> compare, describe and solve practical problems for: <ul style="list-style-type: none"> lengths and heights mass/weight capacity and volume time measure and begin to record the following: <ul style="list-style-type: none"> lengths and heights mass/weight capacity and volume time (hours, minutes, seconds) 	<ul style="list-style-type: none"> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels compare and order lengths, mass, volume/capacity and record the results using >, < and = 	<ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 	<ul style="list-style-type: none"> Convert between different units of measure [for example, kilometre to metre; hour to minute] estimate, compare and calculate different measures 	<ul style="list-style-type: none"> convert between different units of metric measure understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling 	<ul style="list-style-type: none"> solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 d.p. where appropriate use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 d.p. convert between miles and kilometres
Spring 4 Spring 5 Summer 6	Spring 3 Spring 4	Spring 2 Spring 4	Spring 2 Summer 3	Spring 4 Summer 5 Summer 6	Autumn 5

Maths Curriculum Guarantee



Our EYFS Curriculum

- At Blackrod, we understand the importance of meaningful early mathematical experiences for all children. We have created a spiral curriculum, derived from quality sources (e.g. NCETM, White Rose Maths Schemes of Learning, NRICH) and taught through quality first teaching. Our curriculum is inclusive for all children and mathematical experiences are carefully planned for and accessed through all areas of our continuous provision. All reception children receive three taught whole class or small group maths lessons a week and four NCETM Mastering Number sessions. Learning has been meticulously mapped throughout the year to ensure that our children receive rich opportunities that allow them to revisit and build on their prior learning, supporting their development and early identification of emerging needs.
- Children in EYFS explore mathematical concepts through active exploration and their everyday play-based learning. Children are taught key concepts and develop number sense using a hands-on practical approach. EYFS Teachers provide opportunities for children to manipulate a variety of objects which supports their understanding of quantity and number. Pupils explore the 'story' of numbers to twenty, the development of models and images for numbers are used as a solid foundation for further progress. Teachers allow children time for exploration and the use of concrete objects helps to support children's mathematical understanding. Mathematics in the early years provides children with a solid foundation that will enable them to develop skills as they progress through their schooling and ensures that all children are ready for the transition to the National Curriculum.
- We have high expectations of all children and strongly believe that everyone can achieve in mathematics. We recognise that some may take longer to grasp concepts, but we identify this in session and provide careful scaffolding or extra time/support to ensure they keep up. Any children who are not achieving the mathematical concepts within the lessons receive additional support and intervention 1:1. This is planned for carefully to allow children to experience a broad and balanced curriculum.





Cultural Capital for Maths

Our understanding of 'knowledge and cultural capital' is derived from the following wording in the national curriculum:

'It is the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement.'

Ofsted School Inspection Handbook 2019

As Maths is in all aspects of our daily life we look closely at STEM, and significant figures. These then also link to other areas of our curriculum. We give the children the opportunity to see the possibilities maths provides and understanding how it fits in to the wider world.

Cultural Capital is the essential knowledge that children need to prepare them for their future success – in the world of work, in relationships forged throughout life and as a valued contributor to society. When beginning their primary school journey in the EYFS, many children arrive to school with different and sometimes more limited experiences than others.

Therefore, our aim is to give children the knowledge and skills to prepare them for what comes next in their lives. This includes the relevant vocabulary needed throughout their education and the opportunity to link maths to real-world problem solving.

Maths Cultural Capital Offer Includes:

A progressive **vocabulary** overview

Maths books key stage **reading area enhancements**

Maths project provision **resources**

Significant people - individuals who have changed the direction of maths are embedded into linked subject journeys e.g. Computing - Alan Turing /Ada Lovelace

Extra curricular clubs –

Numicon club

Times table rocks stars club

STEM club

School trips –

Rivington high school times tables competition

LEAF cobble hay farm – farm to fork

School visitors –

STEM morning – whole school

Enhancement days and assemblies

Maths day which includes exploring significant mathematicians, completing scavenger hunt, maths tuck shop to support home learning, make me a number activities, theme work for display

Mini enterprise - children gain the opportunities to develop financial literacy and the knowledge and skills to prepare them for what come next in their lives

Cultural Capital for Maths



CPD Offer

- Turing Maths Hub – regular Sustaining Group training and updates
- Mastering Number for EYFS and KS1 and KS2
- First Class for Number
- Third Space Learning
- Maths Manipulatives
- Times Tables
- Regular cluster meetings to moderate and discuss

Workbooks

1. Could these calculations be correct?
 a. $3,924 \div 3 = 1,307 \text{ r}3$ b. $3,242 \div 4 = 810 \text{ r}2$
 c. $5,626 \div 5 = 1,124 \text{ r}6$

Could be correct	Definitely incorrect
a. $1,307 \text{ r}3$ ✓	b. $810 \text{ r}2$ ✓
c. $1,124 \text{ r}6$ ✓	

2. Write the calculations in the correct column of the table.

A. $5,066 \div 4$ B. $9,513 \div 4$ C. $1,234 \div 4$
 D. $6,562 \div 4$ E. $6,563 \div 4$ F. $9,515 \div 4$

Remainder of 1	Remainder of 2	Remainder of 3	Remainder of 4
C, E	A, D	B, F	

3. Are any columns empty? Talk to a partner about why this has happened.

7,816 7,861 6,781 1,786

I know that if I divide these numbers by 5, the remainder will be 1.

Handwritten notes on the right page:
 $1,307 \cdot 3 = 3,921$
 $3,924 - 3,921 = 3$
 $810 \cdot 4 = 3,240$
 $3,242 - 3,240 = 2$
 $1,124 \cdot 5 = 5,620$
 $5,626 - 5,620 = 6$
 $5,066 \div 4 = 1,266 \text{ r}2$
 $9,513 \div 4 = 2,378 \text{ r}1$
 $1,234 \div 4 = 308 \text{ r}2$
 $6,562 \div 4 = 1,640 \text{ r}2$
 $6,563 \div 4 = 1,640 \text{ r}3$
 $9,515 \div 4 = 2,378 \text{ r}3$
 Yes none of them have a remainder of 4. You can't have a remainder bigger than your divisor.

1. Could these calculations be correct?
 a. $3,924 \div 3 = 1,307 \text{ r}3$ b. $3,242 \div 4 = 810 \text{ r}2$
 c. $5,626 \div 5 = 1,124 \text{ r}6$

Could be correct	Definitely incorrect
a. $1,307 \text{ r}3$ ✓	
c. $1,124 \text{ r}6$ ✓	

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A. $5,066 \div 4$ C. $9,513 \div 4$ E. $1,234 \div 4$
 B. $6,562 \div 4$ D. $6,563 \div 4$ F. $9,515 \div 4$

Remainder of 1	Remainder of 2	Remainder of 3	Remainder of 4
C, E	A, B, D, F		

3. Are any columns empty? Talk to a partner about why this has happened.

7,816 7,861 6,781 1,786

I know that if I divide these numbers by 5, the remainder will be 1.

Handwritten notes:
 What do you notice about the remainders and divisors?
 v.f. - practise the divisions.
 you can't have a remainder the same or greater than a divisor.
 x6 v.f. 3 leftover
 x6 v.f. 4 leftover

1. Could these calculations be correct?
 A. $3,924 \div 3 = 1,307 \text{ r}3$ B. $3,242 \div 4 = 810 \text{ r}2$
 C. $5,626 \div 5 = 1,124 \text{ r}6$

Could be correct	Definitely incorrect
A, B, C	

2. Write the calculations in the correct column of the table.

A. $5,066 \div 4$ C. $9,513 \div 4$ E. $1,234 \div 4$
 B. $6,562 \div 4$ D. $6,563 \div 4$ F. $9,515 \div 4$

Remainder of 1	Remainder of 2	Remainder of 3	Remainder of 4
	A, B, C, D, F	E	

3. Are any columns empty? Talk to a partner about why this has happened.

7,816 7,861 6,781 1,786

I know that if I divide these numbers by 5, the remainder will be 1.

Handwritten notes:
 Divide with remainders
 Find the missing numbers.
 Work out the divisions.
 Amir is thinking of a 3-digit number that is less than 500.
 When my number is divided by 9, the remainder is 3. When my number is divided by 2, the remainder is 1. When my number is divided by 5, the remainder is 4.
 What could Amir's number be?
 Is the statement always true, sometimes true or never true?
 When a 3-digit number made of consecutive, descending digits is divided by the next digit, the remainder is 1.
 For example, $765 \div 4 = 191 \text{ r}1$
 The remainders aren't above the divider. They are correct. If what does it mean? It means the number is divisible.
 Sometimes true. - Why? Because $178 \text{ r}1$
 $2 \mid 345$
 152
 $3 \mid 456$
 Yes because of the last digit and the divider.
 No because the could have a remainder before the 1.

Assessment Model



Microsoft Word Document

- Children complete pre and post quizzes for every project this inform planning and support.
- Children are assessed termly using NTS assessments
- Their scaled score and progress is entered onto SIMS and progress tracked.
- Gaps analysis informs planning and support
- Interventions are put in place to support those who are not meeting their target

Intent

Blackrod Maths Overview
High quality resources
Research base
Calculation Policy
3-part lesson sequencing
Use of retrieval and careful sequencing to structure thinking
Curriculum Overview
Q&A Planning and review meetings in teams

Implementation

Shared Key Stage Planning
Pre and post subject assessment ('quizzes')
AFL
Helicopter marking and verbal feedback
Delivery of projects
Q&A Planning and Review Meetings

Impact

Teacher Assessment
AFL
NTS assessments termly
SIMS

M&E of Impact

Q&A Planning and Review Meetings
Pupil progress meetings
Project reviews
Learning Talks
Book Looks
Case Studies



Maths pathway

Year Group	Assessments (summative)	Expectations	Intervention	Learning Support
R	On Entry Assessment Teacher Assessment	Children working below 40-60	Numbers 1-5 / 2D Shape Pinny time White Rose 1 Minute Maths	White Rose 1 Minute Maths
	NTS Assessment (Summer only)	Children working at 40-60 or below in number spring in assessment <i>Times table expectation: Begin to understand concept of x1 Solve problems with doubling and halving</i>	Becoming 1 st class @ Number (Spring/Summer Term)	White Rose 1 Minute Maths Numbots Purple Mash
1	NTS Assessment – Termly	B/WT autumn term assessment B/WT spring/summer assessment	Becoming 1 st class @ Number 1 st Class @ Number 1	White Rose 1 Minute Maths Numbots Purple Mash
	Diagnostic Pre Project Assessment Diagnostic Post Project Assessment	Children not accessing pre assessment Children not accessing post assessment <i>Times table expectation: Count in multiples of 2x, 5x and 10x (skip counting) X1 table ('one group of')</i>	Pre teach session Follow up or Review lesson	White Rose 1 Minute Maths Numbots Purple Mash
2	NTS Assessment – Termly	B/WT autumn term assessment B/WT spring/summer assessment	1 st Class @ Number 1 1 st Class @ Number 2	White Rose 1 Minute Maths Numbots Purple Mash CGP Booklets (summer)
	Times Table Assessment - Half termly	Targeted times tables in maths journals and as home learning	White Rose 1 Minute Maths	Purple Mash Times Table Rock Stars Maths Frame Targeted TT Sheet
	Diagnostic Pre Project Assessment Diagnostic Post Project Assessment	Children not accessing pre assessment Children not accessing post assessment <i>Times Table Expectation: Count in steps of 2,3 and 5 from 0 and in 10s from any number forwards or backwards. (skip counting) • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</i>	Pre teach session Follow up or review lesson	White Rose 1 Minute Maths Numbots Purple Mash
3	NTS Assessment – Termly	B/WT autumn term assessment	1 st Class @ Number 2 Talk for Number*	White Rose 1 Minute Maths Numbots Purple Mash
	Times Table Assessment - Half termly	Targeted times tables in maths journals and as home learning sheet Explicit teaching of times tables in lessons	Times tables club White Rose 1 Minute Maths	Purple Mash Times Table Rock Stars Maths Frame Targeted TT Sheet White Rose 1 Minute Maths
	Diagnostic Pre Project Assessment Diagnostic Post Project Assessment	Children not accessing pre assessment Children not accessing post assessment <i>Times Table expectation: Secure 2x, 5x and 10x as tables facts in any order</i>	Pre teach session Follow up or review lesson	Purple Mash



Microsoft Word
Document

Our EYFS Curriculum: Built for Blackrod

At Blackrod, we understand the importance of meaningful early mathematical experiences for all children. We have created a spiral curriculum, derived from quality sources (e.g. NCETM, White Rose Maths Schemes of Learning, NRICH) and taught through quality first teaching. Our curriculum is inclusive for all children and mathematical experiences are carefully planned for and accessed through all areas of our continuous provision. All reception children receive three taught whole class or small group maths lessons a week and four NCETM Mastering Number sessions. Learning has been meticulously mapped throughout the year to ensure that our children receive rich opportunities that allow them to revisit and build on their prior learning, supporting their development and early identification of emerging needs.

Our EYFS Curriculum: Built for Blackrod

Children in EYFS explore mathematical concepts through active exploration and their everyday play-based learning. Children are taught key concepts and develop number sense using a hands-on practical approach. EYFS Teachers provide opportunities for children to manipulate a variety of objects which supports their understanding of quantity and number. Pupils explore the 'story' of numbers to twenty, the development of models and images for numbers are used as a solid foundation for further progress. Teachers allow children time for exploration and the use of concrete objects helps to support children's mathematical understanding. Mathematics in the early years provides children with a solid foundation that will enable them to develop skills as they progress through their schooling and ensures that all children are ready for the transition to the National Curriculum.

We have high expectations of all children and strongly believe that everyone can achieve in mathematics. We recognise that some may take longer to grasp concepts, but we identify this in session and provide careful scaffolding or extra time/support to ensure they keep up. Any children who are not achieving the mathematical concepts within the lessons receive additional support and intervention 1:1. This is planned for carefully to allow children to experience a broad and balanced curriculum

Exemplar EYFS planning

Spring 1							
Week 1			Find 6, 7, 8 Represent 6, 7, 8 1 more 1 less Composition of 6, 7, 8		Composition	Composition	<ul style="list-style-type: none"> -show numbers to 5 using their fingers -see that 5 can be partitioned into 4 and 1. -show ways of making 5 on their fingers -see that 5 can be partitioned into 3 and 2. -find ways to partition a set of 5. -understand that 5 can be partitioned (split) into different parts -be able to explain what the parts are -use what they know about 5 to work out a hidden number. <p>BBC iPlayer - Numberblocks - Series 3: Zero</p> <p>BBC iPlayer - Numberblocks - Series 1: The Whole of Me</p> <p>BBC iPlayer - Numberblocks - Series 1: Holes</p> <p>BBC iPlayer - Numberblocks - Series 3: Once Upon a Time</p>
Week 2		Growing 6, 7, 8	Make pairs – odd and even Double to 8 (find a double) Double to 8 (make a double)		Comparison	Counting, Ordinality and Cardinality	<ul style="list-style-type: none"> -recognise numerals 1–5 -order numbers from 1–5. -match numerals to quantities in order -help to build towers in order from 1–5 squares -see the staircase pattern and recognise that each number is 1 more. -order towers of 1–5 interlocking cubes -notice when we have '1 more' and when we do NOT have '1 more'. -match numerals to representations -represent staircase patterns in different ways, knowing that each new 'step' is 1 more than the last. <p>BBC iPlayer - Numberblocks - Series 1: Stampolines</p> <p>BBC iPlayer - Numberblocks - Series 1: The Terrible Twos</p> <p>BBC iPlayer - Numberblocks - Series 1: Hide and Seek</p> <p>BBC iPlayer - Numberblocks - Series 3: The Numberblocks Express</p>