



# **British School Al Rams (BSR)**

**Mathematics**

**Primary School (Key Stage 1 and Key  
Stage 2)  
Curriculum Book**

## **Intent**

- Mathematics is important in everyday life and, with this in mind, the purpose of Mathematics at BSR is to develop an ability to solve problems, to reason, to think logically and to work systematically and accurately.
- All children are challenged and encouraged to excel in English. New mathematical concepts are introduced using a 'Concrete, Pictorial and Abstract' approach; enabling all children to experience hands-on learning when discovering new mathematical topics and allows them to have clear models and images to aid their understanding.
- Arithmetic and basic math skills are practised daily to ensure key mathematical concepts are embedded and children can recall this information to see the links between topics in English.
- To develop number sense.
- The ability for children to explain mathematical thinking orally and in writing (including using pictures and mathematical symbols).
- To develop problem solving and reasoning skills that will benefit them in future learning.
- A belief that anyone can achieve in maths.
- To know key number facts by heart through the development of Mental Maths skills.
- To choose efficient calculation methods.
- To appreciate how maths is used and useful outside of school/education (real life situations).

## **Implementation**

Mathematics at BSR:

- Basic Mathematics skills are taught daily. Focusing on key mathematical skills including place value, the four operations and fractions.
- A range of reasoning resources are used to challenge all children and give them the opportunity to reason with their understanding.
- Mathematics meeting and immediate interventions are used to support children to ensure children are ready for their next Mathematics lesson.
- Children are taught through targeted differentiated small group and mixed ability whole class lessons.
- Lessons use a Concrete, Pictorial and Abstract approach to guide children through their understanding of mathematical processes. Pupils develop an understanding of Maths in stages, beginning with concrete objects (such as counters, Base 10 and number disks), then moving to pictorial representations (representing problems using pictures), and finally working in the abstract (where children represent problems using mathematical notation, such as  $12 \div 4 = 3$ ). Through this process, children learn numerous strategies to work with numbers and build understanding and confidence in Maths.
- Revise and Review consolidation lessons are used to revisit previous learning and ensure Mathematics skills are embedded.
- Homework is set to develop and review children's learning.
- Where possible, links are made with other subjects across the curriculum.

## **Impact**

As a result of our Mathematics teaching at BSR you will see:

- Engaged children who are all challenged.
- Confident children who can all talk about Mathematics and their learning and the links between Mathematical topics.
- Lessons that use a variety of resources to support learning.
- Different representations of mathematical concepts.
- Learning that is tracked and monitored to ensure all children make good progress.
- A reflection on standards achieved against the planned outcomes.

Grade KG2

<b>Number of Lessons Per Week</b>		5
<b>Topics Covered</b>		
Term 1	Term 2	Term 3
Numbers to 10 Number Bonds Addition Within 10 Subtraction Within 10 Positions Numbers to 20	Addition and Subtraction Within 20 Shapes and Patterns Length and Height Numbers to 40 Addition and Subtraction Word Problems Volume and Capacity Mass	Numbers to 100 Time Money Space Multiplication Division Fractions
<b>Skills Developed</b>		
Recognise and write correctly (no reversals) of digits 11-20 Number bonds to 5 mentally Number bonds to 6 mentally Number bonds to 7 mentally Number bonds to 8 mentally Number bonds to 9 mentally Number bonds to 10 mentally Number bonds to 20	Count forwards and backwards in multiples of 2 to 24 Count forwards and backwards in multiples of 5 to 60 Count forwards and backwards in multiples of 10 to 120 1 more than numbers up to 20 (mentally) 1 less than numbers up to 20 (mentally) Double any number within 20 Half any number within 20 Name and order of days of the week Name and order of months of the year Tell the time to o'clock	
<b>Assessment</b>		
Weekly Mental Maths Tests Mastery Checkpoints Marking of Books with What Went Well and Even Better If...	Teacher Judgement and Questioning in Lesson WRM - Beginning and End of Unit Assessments created by the teacher. Running records by the teacher GL Assessment Progress Tests in Maths - End of Year	
<b>Home Learning</b>		
Multiplication Facts (2x, 5x and 10x) WRM Parent resources - <a href="https://whiterosemaths.com/parent-workbooks/">https://whiterosemaths.com/parent-workbooks/</a> Prodigy Maths website - <a href="https://www.prodigygame.com/main-en/">https://www.prodigygame.com/main-en/</a>		
<b>Reading List &amp; E-books</b>		
CGP - <a href="https://www.cgpbooks.co.uk/all-products/maths">https://www.cgpbooks.co.uk/all-products/maths</a>		
<b>Useful Websites</b>		
<a href="http://www.primarycurriculum.me.uk/year1/mathematics">http://www.primarycurriculum.me.uk/year1/mathematics</a> - KG2 Maths Curriculum Overview <a href="https://www.topmarks.co.uk/maths-games/5-7-years/counting">https://www.topmarks.co.uk/maths-games/5-7-years/counting</a> - Maths fluency <a href="http://www.xtramath.org">www.xtramath.org</a> - Maths fluency <a href="http://www.ictgames.com/rhoodbeyond10.html">http://www.ictgames.com/rhoodbeyond10.html</a> - Doubling Numbers <a href="http://www.primarygames.co.uk/pg3/orderegg/ordereggsKS1.html">http://www.primarygames.co.uk/pg3/orderegg/ordereggsKS1.html</a> - Place Value Ordering		
<b>Setting (if any)</b>		

At BSR we do not set or stream for Mathematics. Lessons are carefully planned for all styles of learners and for the different abilities within the classroom.

Staff

Pinar Tasci, Habiba Hansrod, Samirah Sadiq, Mariam Iqbal

Grade 1

<b>Number of Lessons Per Week</b>		5
<b>Topics Covered</b>		
Term 1	Term 2	Term 3
Numbers to 100 Addition and Subtraction Multiplication of 2, 5 and 10 Multiplication and Division of 2, 5 and 10 Money	Multiplication and Division of 2, 5 and 10 Statistics Two-Dimensional Shapes Three-Dimensional Shapes Fractions	Time Volume Length and height Position and direction Mass Temperature More Word Problems
<b>Skills Developed</b>		
Number bonds to 10 and 20 mentally Number bonds to 100 (multiples of 10) 1 more than numbers up to 100 1 less than numbers up to 100 10 more than numbers up to 100 10 less than numbers up to 100 Count forwards and backwards in multiples of 2, 5 and 10 Multiplication facts for 2 times table up to $2 \times 12$ Division facts for 2 times table up to $24 \div 2$ Multiplication facts for 5 times table up to $5 \times 12$ Division facts for 5 times table up to $60 \div 5$ Multiplication facts for 10 times table up to $10 \times 12$	Strategies for adding 9 to any number up to 100 Strategies for subtracting 9 to any number up to 100 Name of months of the year Double any number within 100 Half any number within 100 Tell the time to o'clock and half past Know the names of all 2D shapes Know the names of all 3D shapes Using maths vocabulary to describe position, direction and movement Making patterns with shapes	
<b>Assessment</b>		
Weekly Mental Maths Tests Mastery Checkpoints Marking of Books with What Went Well and Even Better If... White Rose Challenges	Teacher Judgement and Questioning in Lesson WRM - End of Unit Assessments WRM - Termly assessments Running records by the teacher GL Assessment Progress Tests in Maths - End of Year	
<b>Home Learning</b>		
Multiplication Facts (2x, 5x, 10x) WRM Parent resources - <a href="https://whiterosemaths.com/parent-workbooks/">https://whiterosemaths.com/parent-workbooks/</a> Prodigy maths website - <a href="https://www.prodigygame.com/main-en/">https://www.prodigygame.com/main-en/</a>		
<b>Reading List &amp; E-books</b>		
CGP - <a href="https://www.cgpbooks.co.uk/all-products/maths">https://www.cgpbooks.co.uk/all-products/maths</a>		
<b>Useful Websites</b>		
<a href="http://www.primarycurriculum.me.uk/year2/mathematics">http://www.primarycurriculum.me.uk/year2/mathematics</a> - Grade 1 Maths Curriculum Overview <a href="https://thirdspacelearning.com/blog/year-2-maths/">https://thirdspacelearning.com/blog/year-2-maths/</a> - Explanation of Grade 1 Concepts <a href="http://www.xtramath.org">www.xtramath.org</a> - Maths fluency <a href="https://www.hardwickandcambourneprimary.co.uk/year-2-maths/">https://www.hardwickandcambourneprimary.co.uk/year-2-maths/</a> - Grade 1 Maths practice		

<https://www.bbc.co.uk/bitesize/topics/zjv39j6> - 2D and 3D shapes  
<https://www.ictgames.com/mobilePage/archeryDoubles/index.html> - Doubling activity

**Setting (if any)**

At BSR we do not set or stream for Mathematics. Lessons are carefully planned for all styles of learners and for the different abilities within the classroom.

**Staff**

Thomas Graham, Melane Mostert, Rachel Ellison

Grade 2

<b>Number of Lessons Per Week</b>		5
<b>Topics Covered</b>		
<b>Term 1</b>	<b>Term 2</b>	<b>Term 3</b>
Numbers to 10,000 Addition and Subtraction within 10,000 Multiplication and Division	Length and perimeter Fractions Money Picture and Bar Graphs Multiplication and Division	Angles and Lines Perimeter Fractions Time Mass Volume
<b>Skills Developed</b>		
Number bonds to 100 mentally (multiples of 10) Number bonds to 1000 (multiples of 100) 10 more and less than any number up to 1000 100 more and less than any number up to 1000 Strategies for adding 90 to any number up to 1000 Strategies for subtracting 90 to any number up to 1000 Multiplication facts for 3 times table up to $3 \times 12$ Division facts for 3 times table up to $36 \div 3$ Multiplication facts for 4 times table up to $4 \times 12$ Division facts for 4 times table up to $48 \div 4$ Multiplication facts for 8 times table up to $8 \times 12$ Division facts for 8 times table up to $96 \div 8$ Double any number within 1000 Half any number within 1000	Know the number of days in each month Know how many seconds in a minute Know how many hours in a day Know how many days in a year Tell the time to o'clock, half past, quarter past and quarter to Count up and down in tenths Be able to write tenths in decimals and fractions Know names of all 2D shapes and how many sides they have Know names and number of faces in a 3D shapes Convert between mm and cm Convert between m and cm Know number of degrees in a triangle and quadrilateral	
<b>Assessment</b>		
Weekly Mental Maths Tests Mastery Checkpoints Marking of Books with What Went Well and Even Better If... White Rose Challenges	Teacher Judgement and Questioning in Lesson White Rose End of Unit Assessments WRM - Termly assessments Running Records taken by the teacher GL Assessment Progress Tests in Maths - End of Year	
<b>Home Learning</b>		
Multiplication Facts (3x, 4x, 8x) WRM Parent resources - <a href="https://whiterosemaths.com/parent-workbooks/">https://whiterosemaths.com/parent-workbooks/</a> Prodigy maths website - <a href="https://www.prodigygame.com/main-en/">https://www.prodigygame.com/main-en/</a>		
<b>Reading List &amp; E-books</b>		
CGP - <a href="https://www.cgpbooks.co.uk/all-products/maths">https://www.cgpbooks.co.uk/all-products/maths</a>		
<b>Useful Websites</b>		
<a href="http://www.primarycurriculum.me.uk/year3/mathematics">http://www.primarycurriculum.me.uk/year3/mathematics</a> - Grade 2 Maths Curriculum Overview <a href="http://www.crickweb.co.uk/ks2numeracy.html">http://www.crickweb.co.uk/ks2numeracy.html</a> - Practice Curriculum Skills <a href="http://www.Mathsonttoast.org.uk">www.Mathsonttoast.org.uk</a> - 'Maths on Toast' works towards giving all families and communities creative, human and social experiences of maths. <a href="http://mathszone.co.uk/">http://mathszone.co.uk/</a> - A popular website with lots of mathematical games.		

<http://learnyourtables.co.uk/en/index2.htm> - n this website, you can choose which times table you want to practice. If you are confident with them all you can choose to do a mix of tables.

[www.xtramath.org](http://www.xtramath.org) - Increased Maths fluency

**Setting (if any)**

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**Staff**

[Karen Page](#), [Anya Reavley](#)



Grade 3

<b>Number of Lessons Per Week</b>		5
<b>Topics Covered</b>		
<b>Term 1</b>	<b>Term 2</b>	<b>Term 3</b>
Numbers to 10,000 Addition and Subtraction within 10,000 Multiplication and Division Length and Perimeter	Fractions Decimals Area Multiplication and Division	Money Geometry: Properties of Shape Geometry: Position and direction Position and Movement Roman Numerals Time Decimals Statistics: Graphs
<b>Skills Developed</b>		
Number bonds to 1000 mentally (multiples of 100) Number bonds to 1000 (multiples of 1000) Roman Numerals to 50 1000 more and less than any number up to 10,000 Double any number within 10,000 Half any number within 10,000 Strategies for adding 900 to any number up to 10,000 Strategies for subtracting 900 to any number up to 10,000 Round to the nearest 10, 100 and 1000 for any number up to 10,000 Multiply numbers by 10, 100 and 1000 Divide numbers by 10, 100 and 1000 Make sure children cover larger surfaces and have a clear understanding of the concept of area before moving onto counting small squares	Multiplication and division facts for 6 times table up to 6 x 12 Multiplication and division facts for 7 times table up to 7 x 12 Multiplication and division facts for 9 times table up to 9 x 12 Multiplication and division facts for 11 times table up to 11 x 12 Multiplication and division facts for 12 times table up to 12 x 12 Know the number of days in each month Tell the time to 5-minute intervals Count up and down in hundredths Be able to write hundredths in decimals and fractions Know names of all 2D shapes, how many sides they have and number of lines of symmetry Know names and number of faces and vertices in 3D shapes Know number of degrees in a full turn, half turn and quarter turn Know number of degrees in a right angle, obtuse and acute angle Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	
<b>Assessment</b>		
Weekly Mental Maths Tests Mastery Checkpoints Marking of Books with What Went Well and Even Better If... White Rose Challenges	Teacher Judgement and Questioning in Lesson White Rose End of Unit Assessments WRM - Termly assessments Running Records taken by the teacher GL Assessment Progress Tests in Maths - End of Year	
<b>Home Learning</b>		
Multiplication Facts (up to 12x) WRM Parent resources - <a href="https://whiterosemaths.com/parent-workbooks/">https://whiterosemaths.com/parent-workbooks/</a> Prodigy maths website - <a href="https://www.prodigygame.com/main-en/">https://www.prodigygame.com/main-en/</a>		
<b>Reading List &amp; E-books</b>		

CGP - <https://www.cgpbooks.co.uk/all-products/maths>

**Useful Websites**

<http://www.primarycurriculum.me.uk/year4/mathematics> - Grade 3 Maths Curriculum Overview

[www.xtramath.org](http://www.xtramath.org) - Maths fluency

<https://www.timestables.co.uk/multiplication-tables-check/> - Practice for the Grade 3 Times Table Assessment

<https://mathsframe.co.uk/en/resources/resource/116/telling-the-time> - Telling the time activities

<https://www.sheppardsoftware.com/mathgames/measurement/MeasurementLiters.htm> - Metric measurement activities.

<https://www.studyzone.tv/game86-code3dc5617c60ff2ca509aabc60944162d1> - Multiplying by 10, 100, 100

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**Staff**

Deon Mostert, Gabrielle Williams

Grade 4

<b>Number of Lessons Per Week</b>		5
<b>Topics Covered</b>		
Term 1	Term 2	Term 3
Numbers to 1,000,000 Addition and Subtraction Multiplication and Division Word Problems Graphs Area and Perimeter	Multiplication and Division Fractions Percentages Decimals	Geometry: Properties of shape Measurements Area and Perimeter Volume Roman Numerals
<b>Skills Developed</b>		
Number bonds to any given number Roman Numerals to 100 10,000 more and less than any number up to 100,000 Double any number within 100,000 Half any number within 100,000 Strategies for adding 9000 to any number up to 100,000 Strategies for subtracting 9000 to any number up to 100,000 Round to the nearest 10, 100, 1000 and 10,000 for any number up to 100,000 Multiply numbers by 10, 100 and 1000 Divide numbers by 10, 100 and 1000 Squared numbers up to 12 <sup>2</sup> Prime numbers up to 19 Round decimals to the nearest whole number Round decimals to 1DP	Multiplication and division facts for all multiplication tables Convert between mixed numbers and improper fractions Convert between different unit of measures Convert between analogue and digital time Tell the time to the nearest minute Count up and down in thousandths Be able to write thousandths in decimals and fractions Know names of all 2D shapes, how many sides they have, number of lines of symmetry, number of parallel and perpendicular lines Know names and number of faces, vertices and edges in 3D shapes Identify 3D shapes and nets Know number of degrees on a straight line Know number of degrees around a point	
<b>Assessment</b>		
Weekly Mental Maths Tests Mastery Checkpoints Marking of Books with What Went Well and Even Better If... White Rose Challenges	Teacher Judgement and Questioning in Lesson White Rose End of Unit Assessments WRM - Termly assessments Running Records taken by the teacher GL Assessment Progress Tests in Maths - End of Year	
<b>Home Learning</b>		
Multiplication Facts (up to 12x) WRM Parent resources - <a href="https://whiterosemaths.com/parent-workbooks/">https://whiterosemaths.com/parent-workbooks/</a> Prodigy maths website - <a href="https://www.prodigygame.com/main-en/">https://www.prodigygame.com/main-en/</a>		
<b>Reading List &amp; E-books</b>		
CGP - <a href="https://www.cgpbooks.co.uk/all-products/maths">https://www.cgpbooks.co.uk/all-products/maths</a>		
<b>Useful Websites</b>		
<a href="http://www.primarycurriculum.me.uk/year5/mathematics">http://www.primarycurriculum.me.uk/year5/mathematics</a> - Grade 4 Maths Curriculum Overview <a href="https://plprimarystars.com/for-families/play-game">https://plprimarystars.com/for-families/play-game</a> - Decimal number activities <a href="https://kids.classroomsecrets.co.uk/resource/year-5-angles-around-a-point-game/">https://kids.classroomsecrets.co.uk/resource/year-5-angles-around-a-point-game/</a> - Calculating angles		

<https://mathsframe.co.uk/en/resources/category/456/round-any-number-to-the-nearest-10-100-or-1000> - Grade 4 rounding activities  
<https://www.bernardsheathjnr.herts.sch.uk/adding-and-subtracting-fractions-games/> - Grade 4 Fraction activities

**Setting (if any)**

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**Staff**

Farag Mohamed

Grade 5

<b>Number of Lessons Per Week</b>		5
<b>Topics Covered</b>		
Term 1	Term 2	Term 3
Numbers to 1,000,000 Calculations - Four Operations Fractions Decimals Geometry Position and Movement	Decimals Measurements Word Problems Percentages Ratio Algebra Area and Perimeter Geometry	Graphs and Averages Negative Numbers Volume Properties of shapes
<b>Skills Developed</b>		
Number bonds to any given number Roman Numerals to 1000 100,000 more and less than any number up to a million Double any number up to a million Half any number up to a million Strategies for adding 90,000 to any number up to a million Strategies for subtracting 90,000 to any number up to a million Round any number to any degree of accuracy Multiply numbers by 10, 100 and 1000 Divide numbers by 10, 100 and 1000 Squared numbers up to $12^2$ Prime numbers Round decimals to 1DP Round decimals to 2DP	Multiplication and division facts for all multiplication tables Convert between mixed numbers and improper fractions Convert between different unit of measures Convert between analogue and digital Tell the time to the nearest minute Count up and down in thousandths Be able to write thousandths in decimals and fractions Know names of all 2D shapes, how many sides they have, number of lines of symmetry, number of parallel and perpendicular lines Know names and number of faces, vertices and edges in 3D shapes Identify 3D shapes and nets	
<b>Assessment</b>		
Weekly Mental Maths Tests Mastery Checkpoints Marking of Books with What Went Well and Even Better If... White Rose Challenges	Teacher Judgement and Questioning in Lesson White Rose Maths - End of Unit Assessments WRM - Termly assessments Running Records taken by the teacher GL Assessment Progress Tests in Maths - End of Year	
<b>Home Learning</b>		
Multiplication Facts (up to 12x) WRM Parent resources - <a href="https://whiterosemaths.com/parent-workbooks/">https://whiterosemaths.com/parent-workbooks/</a> Prodigy maths website - <a href="https://www.prodigygame.com/main-en/">https://www.prodigygame.com/main-en/</a>		
<b>Reading List &amp; E-books</b>		
CGP - <a href="https://www.cgpbooks.co.uk/all-products/maths">https://www.cgpbooks.co.uk/all-products/maths</a>		
<b>Useful Websites</b>		
<a href="http://www.primarycurriculum.me.uk/year6/mathematics">http://www.primarycurriculum.me.uk/year6/mathematics</a> - Grade 5 Maths Curriculum Overview <a href="https://www.bbc.co.uk/bitesize/subjects/z826n39">https://www.bbc.co.uk/bitesize/subjects/z826n39</a> - End of Grade 5 activities <a href="https://www.sheppardsoftware.com/math.htm">https://www.sheppardsoftware.com/math.htm</a> - Consolidation of Maths games and activities <a href="https://www.timestables.co.uk/">https://www.timestables.co.uk/</a> - Times tables games and activities <a href="https://thirdspacelearning.com/blog/year-6-maths-reasoning-questions-answers-ks2-sats/">https://thirdspacelearning.com/blog/year-6-maths-reasoning-questions-answers-ks2-sats/</a> - Problem solving questions		

**Setting (if any)**

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**Staff**

Laura Campbell