British School Khuzam (BSK)

Mathematics

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

Intent

- Mathematics is important in everyday life and, with this is mind, the purpose of Mathematics at BSK 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 BSK:

- 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 ÷ 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 Mathematic skills are embedded.
- Homework is set to develop and review children's learning. Ongoing homework would be the utilization of IXL and Xtramath to help with KIRF's (Key Instant Recall Facts).
- Where possible, links are made with other subjects across the curriculum.

Impact

As a result of our Mathematics teaching at BSK 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

Number of Lessons Per Week	5

Topics Covered

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 Multiplication Division Fractions	Numbers to 100 Time Money Volume and Capacity Mass Space

Skills Developed

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

Assessment

Weekly Mental Maths Tests Mastery Checkpoints Marking of Books with What Went Well and Even Better If...	Teacher Judgement and Questioning in Lesson Maths No Problem - Beginning and End of Unit Assessments created be the teacher. Running records by the teacher GL Assessment Progress Tests in Maths - End of Year

Home Learning

Multiplication Facts (2x, 5x and 10x)
Number bonds to 20
Skip counting in 2,5 and 10
www.ixl.com
www.xtramath.com

Reading List & E-books

Maths No Problem Work Book and Textbooks

Useful Websites

http://www.primarycurriculum.me.uk/year1/mathematics - KG2 Maths Curriculum Overview
https://www.topmarks.co.uk/maths-games/5-7-years/counting - Maths fluency
www.xtramath.org - Maths fluency

http://www.ictgames.com/rhoodbeyond10.html - Doubling Numbers http://www.primarygames.co.uk/pg3/orderegg/ordereggsKS1.html - Place Value Ordering
Setting (if any)
At BSK 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
Orla Murphy, Lauren Jones, Claire McKenna, Eleanor Ward, Banu Barissal, Cristina Mehmood, Katerina Vasic

Grade 1

Number of Lessons Per Week	5

Topics Covered

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 Length Mass	Temperature Picture Graphs More Word Problems Money Two-Dimensional Shapes	Three-Dimensional Shapes Fractions Time Volume

Skills Developed

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 x 12 Division facts for 2 times table up to 24 ÷ 2 Multiplication facts for 5 times table up to 5 x 12 Division facts for 5 times table up to 60 ÷ 5 Multiplication facts for 10 times table up to 10 x 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

Assessment

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 Maths No Problem – End of Unit Assessments Running records by the teacher GL Assessment Progress Tests in Maths – End of Year

Home Learning

Multiplication Facts (2x, 5x, 10x)
Skip counting in 3's and 4's
Number bonds to 100
Telling the time (o'clock and half past)
www.ixl.com
www.xtramath.com

Reading List & E-books

Maths No Problem Work Book and Textbooks

Useful Websites

http://www.primarycurriculum.me.uk/year2/mathematics - Grade 1 Maths Curriculum Overview
https://thirdspacelearning.com/blog/year-2-maths/ - Explanation of Grade 1 Concepts
www.xtramath.org – Maths fluency
https://www.hardwickandcambourneprimary.co.uk/year-2-maths/ - 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 BSK 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
Emma Lloyd, Beth Harvey, Katherine Spanswick, Natasha Hay, Sureya Fazal

Grade 2

Number of Lessons Per Week	5

Topics Covered

Term 1	Term 2	Term 3
Numbers to 10,000 Addition and Subtraction within 10,000 Multiplication and Division	Length Mass Volume Money Time	Picture and Bar Graphs Fractions Angles and Lines Perimeter

Skills Developed

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 x 12 Division facts for 3 times table up to 36 ÷ 3 Multiplication facts for 4 times table up to 4 x 12 Division facts for 4 times table up to 48 ÷ 4 Multiplication facts for 8 times table up to 8 x 12 Division facts for 8 times table up to 96 ÷ 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

Assessment

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 Maths No Problem - End of Unit Assessments White Rose End of Unit Assessments Running Records taken by the teacher GL Assessment Progress Tests in Maths - End of Year

Home Learning

Multiplication Facts (3x, 4x, 8x)
Number bonds to 1000
www.ixl.com
www.xtramath.com

Reading List & E-books

Maths No Problem Work Book and Textbooks

Useful Websites

http://www.primarycurriculum.me.uk/year3/mathematics - Grade 2 Maths Curriculum Overview
http://www.crickweb.co.uk/ks2numeracy.html - Practice Curriculum Skills
www.Mathsontoast.org.uk - 'Maths on Toast' works towards giving all families and communities creative, human and social experiences of maths.
http://mathszone.co.uk/ - 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 - Increased Maths fluency
Setting (if any)
At BSK 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
Emma O'Brien, Kirsty Jones, Ben Glanfield, Keith Staunton, Daniel Kowalski, Lameece Dibsi

Grade 3

Number of Lessons Per Week	5

Topics Covered

Term 1	Term 2	Term 3
Numbers to 10,000 Addition and Subtraction within 10,000 Multiplication and Division	Graphs Fractions Time Decimals	Money Mass, Volume and Length Area Geometry Position and Movement Roman Numerals

Skills Developed

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	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 Convert between g and kg Convert between ml and l 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

Assessment

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 Maths No Problem - End of Unit Assessments White Rose End of Unit Assessments Running Records taken by the teacher GL Assessment Progress Tests in Maths - End of Year

Home Learning

Multiplication Facts (up to 12x)
Number bonds to 1000
Telling the time
www.ixl.com
www.xtramath.com

Reading List & E-books

Maths No Problem Work Book and Textbooks

Useful Websites

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

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
Setting (if any)
At BSK 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
Jonathan Harvey, Mali Tambi, Alison Earnshaw, Brendan Chapman

Grade 4

Number of Lessons Per Week	5

Topics Covered

Term 1	Term 2	Term 3
Numbers to 1,000,000 Addition and Subtraction Multiplication and Division Word Problems Graphs	Fractions Percentages Decimals Geometry	Measurements Area and Perimeter Volume Roman Numerals

Skills Developed

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 12^2
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

Assessment

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
Maths No Problem - End of Unit Assessments
White Rose End of Unit Assessments
Running Records taken by the teacher
GL Assessment Progress Tests in Maths - End of Year

Home Learning

Multiplication Facts (up to 12x)
Word problems involving all 4 operations (+, -, x, ÷)
www.ixl.com
www.xtramath.com

Reading List & E-books

Maths No Problem Work Book and Textbooks

Useful Websites

http://www.primarycurriculum.me.uk/year5/mathematics - Grade 4 Maths Curriculum Overview
https://plprimarystars.com/for-families/play-game - Decimal number activities
https://kids.classroomsecrets.co.uk/resource/year-5-angles-around-a-point-game/ - 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)
At BSK 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
Marcus Earnshaw, Michael Taylor, Sally Betteridge, Wayne Spanswick

Grade 5

Number of Lessons Per Week	5

Topics Covered

Term 1	Term 2	Term 3
Numbers to 1,000,000 Calculations - Four Operations Fractions Decimals Measurements	Measurements Word Problems Percentages Ratio Algebra Area and Perimeter Geometry	Graphs and Averages Negative Numbers Volume Geometry Position and Movement

Skills Developed

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

Assessment

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 Maths No Problem - End of Unit Assessments 3 SATs prep papers per year Running Records taken by the teacher GL Assessment Progress Tests in Maths - End of Year End of Key Stage 2 SATs

Home Learning

Multiplication Facts (up to 12x)
Word problems involving all 4 operations (+, -, x, ÷)
www.ixl.com

Reading List & E-books

Maths No Problem Work Book and Textbooks

Useful Websites

http://www.primarycurriculum.me.uk/year6/mathematics - Grade 5 Maths Curriculum Overview
https://www.bbc.co.uk/bitesize/subjects/z826n39 - End of Grade 5 activities
https://www.sheppardsoftware.com/math.htm - Consolidation of Maths games and activities
https://www.timestables.co.uk/ - Times tables games and activities
https://thirdspacelearning.com/blog/year-6-maths-reasoning-questions-answers-ks2-sats/ - Problem solving questions

Setting (if any)
At BSK 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
Shaun Haywood, Rachel Hawkins