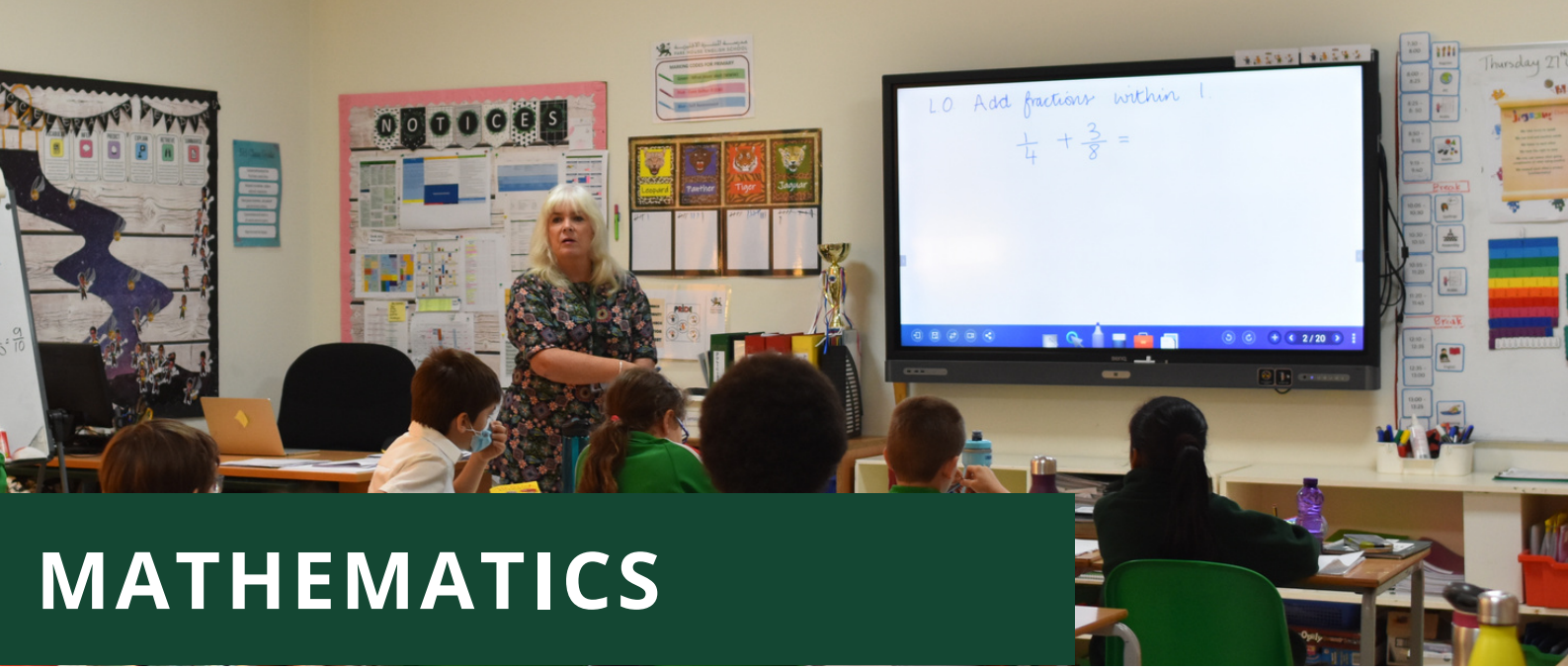

MATHEMATICS

Our Primary mathematics curriculum is designed to make pupils feel confident, supported and challenged. We want pupils to embrace mathematics and foster a lifelong love of the subject applying it to other areas of the curriculum. Pupils are eager to talk about their work, be engaged and question their understanding to further their learning. Pupils will understand the importance of mathematics in the real world as well as recognising and applying connections. At Park House, we apply the 'Teaching for Mastery' framework within our day-to-day practise to help encourage a deeper understanding of core mathematical concepts. In doing this, we create critical, independent thinkers in our classrooms.

Mathematics in Primary School is a crucial stage in a pupil's educational journey. Students begin with learning basic maths skills from numbers to shapes, space and measuring using concrete everyday objects to support their understanding. As they progress, these concepts become more challenging particularly as they move towards more abstract methods. We have embarked on a 'Teaching for Mastery' journey which allows all children to think critically about concepts that they have mastered. My role in leading mathematics in Primary School is to ensure that all children have the opportunity to grow into confident, independent resilient mathematicians ready to display their skill set as they move into secondary.

Alisha Fawziyyah - Head of Primary Mathematics

EARLY YEARS FOUNDATION STAGE

During the early years of children's school experience mathematics takes place both indoors and ours through a wide range of practical and "hands on" activities. The staff use their knowledge and expertise to plan for a high-quality learning environment which provides children with lots of opportunities to explore different aspects of numbers and shape, space and measure and learn new concepts. The children have a wide range of structured play resources available to them throughout the year – this is known as "continuous provision". The adults model the use of these resources and the appropriate mathematical language as they support the children in their play. In addition to the outdoor and indoor activities, teachers plan adult led activities for groups of children and individuals based on their observation of what children can do. They plan activities to address any misconceptions and to introduce new concepts.

KEY STAGE 1

As pupils move from reception to KS1 they continue to learn maths in a practical hands-on way, using everyday objects to solve problems and work through simple calculations. The children will be talking about their methods and using pictorial representations, lists and tables to present their results/answers. This is a crucial early stage of education where children's educational developments really begins as their cognitive abilities are explored, developed and put to the test.

KEY STAGE 2

During KS2 children become much more confident with key mathematical concepts particularly as they continue to revisit topics. They are learning to add, subtract, multiply and divide as well as using mental strategies and solving problems using time, measure and money. A key skill that children must learn in order to support their learning in maths lessons is the fluent recall of times tables up to 12. The expectation is that children know all facts up to 12 by the end of year 4. This helps to support trickier concepts they begin to learn in years 5 and 6.

MATHEMATICS
Medium Term Curriculum Map
Term 1 2022 - 2023

Park House English School

Park House English School

EYFS

Getting to know you
- Introduction to areas of provision
- Key times of the day
- Inside and outside
- Where do things belong
- Positional language

Just like me
- Matching objects
- Sorting objects
- Odd one out
- Compare amounts
- Compare size, mass and capacity
- Making simple patterns

It's me 1, 2, 3
- Representing 1, 2, 3
- Comparing 1, 2, 3
- Composition 1, 2, 3
- Circles and triangles
- Spatial awareness

Light and Dark
- Counting on and back from 4
- Counting on and back from 5
- One more and one less
- Shapes with 4 sides
- Night and Day

YEAR 1

Number: Place Value within 10
- Sorting objects
- Counting objects
- Counting objects from a larger group
- Representing objects
- Recognising numbers as words
- Count on from any number
- Finding 1 more
- Count backwards within 10
- Finding 1 less
- Comparing groups by matching
- Investigating fewer, more and same
- Investigating less than (<) greater than (>) and equal to (=)
- Introducing number line up to 10.

Number: Place Value within 10
- Introducing parts and wholes
- Using part-whole model
- Writing number sentences
- Investigating fact families-addition facts
- Number bonds within 10
- Systematic number bonds to 10
- Number bonds to 10
- Addition - add together
- Addition - add more
- Addition problems
- Find a part
- Subtraction - find a part
- Fact families - the eight facts
- Subtraction - take away/cross out (How many are left?)
- Take away (How many are left?)
- Subtraction on a number line
- Add or subtract 1 or 2

Geometry: Shape
- Recognise and name 3D shapes
- Sort 3D shapes
- Recognise and name 2D shapes
- Sort 2D shapes
- Identifying patterns withing 3D and 2D shapes

Number: Place Value within 20
- Count forwards and backwards
- Write numbers to 20 in numerals and words
- Tens and ones
- Count one and more and one less
- Compare groups of objects
- Compare numbers
- Order groups of objects
- Order numbers

YEAR 2

Number: Place Value
- Numbers to 20
- Counting objects to 100 by making 10s
- Recongising tens and ones
- Using a place value chart
- Partitioning numbers to 100
- Writing numbers to 100 in words
- Flexibly partitioning numbers to 100
- Write numbers to 100 in expanded form
- 20s on the number line to 100
- 10s and 2s on the number line to 100
- Estimate numbers on a number line
- Comparing objects
- Comparing numbers
- Ordering objects and numbers
- Counting in 2s, 5s, and 10s
- Counting in 3s

Number: Addition and Subtraction
- Bonds to 10
- Fact families-addition and subtraction bonds within 20
- Related addition and subtraction facts
- Bonds to 100 (tens)
- Adding and subtracting 1s
- Add by making 10
- Add three 1-digit numbers
- Add to the next 10
- Add across a 10
- Subtract across 10
- Subtract from a 10
- Subtract a 1-digit number from a 2-digit number (across a 10)
- 10 more, 10 less
- Add and subtract 10s
- Add two 2-digit numbers (not across a 10)
- Add two 2 -digit numbers (across a 10)
- Subtract two 2-digit numbers (not across a 10)
- Subtract two 2-digit numbers (across 10)
- Mixed addition and subtraction
- Comparing number sentences
- Solving missing number problems

Number: Addition and Subtraction
- Recognise 2D and 3D shapes
- Count sides on 2D shapes
- Count vertices on 2D shapes
- Draw 2D shapes
- Lines of symmetry on shapes
- Use line of symmetry to complete shapes
- Sort 2D shapes
- Count faces on 2D shapes
- Count edges on 3D shapes
- Count vertices on 3D shapes
- Sort 3D shapes
- Make patterns with 2D and 3D shapes

Park House English School

MATHEMATICS
Medium Term Curriculum Map
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Park House English School

YEAR 3

Number: Place Value

- Recognise numbers to 100
- Partition numbers to 100
- Number line to 100
- Investigating hundreds
- Representing numbers to 1,000
- Partitioning numbers to 1,000
- Flexible partitioning of numbers to 1,000
- Hundreds, tens, ones
- Find 1, 10, 100 more or less
- Number line to 1,000
- Estimating on a number line to 1,000
- Comparing numbers to 1,000
- Ordering numbers to 1,000
- Counting in 50s

Number: Addition and Subtraction

- Apply number bonds within 10
- Add and subtract 1s
- Add and subtract 10s
- Add and subtract 100s
- Add 10s across a 100
- Add 10s across a 100
- Subtract 1s across a 10
- Subtract 10s across a 100
- Add two numbers (no exchange)
- Subtract two numbers (no exchange)
- Add two numbers (across 10)
- Add two numbers (across 100)
- Subtract two numbers (across a 10)
- Subtract two numbers (across a 100)
- Add 2-digit and 3-digit numbers
- Subtract a 2-digit number from a 3-digit number
- Complements to 100
- Estimate answers
- Inverse operations to check answers

Number: Multiplication and Division

- Multiplication- equal groups
- Using arrays
- Multiples of 2
- Multiples of 5 and 10
- Sharing and grouping
- Multiplying by 3
- Dividing by 3
- The 3 times-table
- Multiplying by 4
- Dividing by 4
- The 4 times –tables
- Multiplying by 8
- Dividing by 8
- The 8 times-tables
- The 2, 4 and 8 times-tables

YEAR 4

Number: Place Value

- Represent numbers to 1,000
- Partition numbers to 1,000
- Number lines to 1,000
- Investigating thousands
- Representing numbers to 10,000
- Flexible portioning of numbers up to 10,000
- Find 1, 10, 100, 1,000 more or less
- Number lines to 10,000
- Estimate on a number line to 10,000
- Compare numbers to 10,000
- Order numbers to 10,000
- Investigating Roman Numerals to 100
- Rounding to the nearest 10
- Rounding to the nearest 100
- Rounding to the nearest 1,000
- Round to the nearest 10, 100 or 1,000

Number: Addition and Subtraction

- Add and subtract 1, 10s, 100s and 1,000s
- Add up to two 4-digit numbers-no exchange
- Add two 4-digit numbers- one exchange
- Add up to two 4- digit numbers- more than one exchange
- Subtract two 4 -digit numbers- no exchange
- Subtract two 4-digit numbers- one exchange
- Subtract two 4-digit numbers-more than one exchange
- Efficient subtraction
- Estimating answers
- Checking strategies

Measurement: Area

- What is area?
- Counting squares to find area
- Making shapes with given areas

Number: Multiplication and Division

- Multiple of 3
- Multiply and divide by 6
- 6 times tables and division facts
- Multiple and divide by 9
- 9 times tables and division facts
- The 3, 6 and 9 times tables
- Multiply and divide by 7
- 7 times tables and division facts
- 11 times tables and division facts
- 12 times tables and division facts
- Multiply by 1 and 0
- Divide a number by 1 and itself
- Multiply three numbers

Number: Multiplication and Division B

- Factor pairs
- Efficient multiplication
- Written methods for multiplying
- Multiplying 2-digit by 1-digit (column method)
- Multiply 3- digits by 1-digit (column method)
- Divide 2-digit by 1-digit (short division)
- Divide 3-digits by 1 digit (short division)
- Correspondence problems

MATHEMATICS
Medium Term Curriculum Map
Term 1 2022 - 2023

Park House English School

Park House English School

YEAR 5

Number: Place Value

- Roman numerals to 1,000
- Numbers to 10,000
- Numbers to 100,000
- Numbers to 1,000,000
- Read and write numbers to 1,000,000
- Powers of 10
- 10/100/1,00/10,000/100,000 more or less
- Partitioning numbers to 1,000,000
- Number lines to 1,000,000
- Compare and order numbers to 100,000
- Compare and order numbers to 1,000,000
- Round to the nearest 10,1000 or 1,000
- Round withing 100,000
- Round within 1,000,000

Number: Addition and Subtraction

- Using mental strategies
- Add whole number with more than four digits
- Subtract whole numbers with more than four digits
- Round to check answers
- Inverse operations (addition and subtraction)
- Multiply-step addition and subtraction problems
- Comparing calculations
- Find missing numbers

Number: Multiplication and Division

- Investigating multiples
- Common multiples
- Factors
- Common factors
- Prime numbers
- Square numbers
- Cube numbers
- Multiply by 10, 100 and 1,000
- Divide by 10,100 and 1,000

Number: Fractions A

- Find fractions equivalent to a unit fraction
- Find fractions equivalent to a non-unit fraction
- Recognise equivalent fractions
- Convert improper fractions to mixed numbers
- Convert mixed numbers to improper fractions
- Compare fractions less than 1
- Order fractions less than 1
- Compare and order fractions greater than 1
- Add and subtract fractions with the same denominator
- Add fractions within 1
- Add fractions with total greater than 1
- Add to a mixed number
- Add two mixed numbers
- Subtract fractions
- Subtract from a mixed number
- Subtract from a mixed number-breaking the whole
- Subtract two mixed numbers

YEAR 6

Number: Place Value

- Numbers to 1,000,000
- Numbers to 10,000,000
- Read and write numbers to 10,000,000
- Powers of 10
- Number lines to 10,000,000
- Compare and order integers
- Round any integer
- Negative numbers

Number: Addition, Subtraction, Multiplication and Division

- Add and subtract integers
- Common factors
- Common multiples
- Rules of divisibility
- Primes to 100
- Square and cube numbers
- Multiplying up to a 4-digit number by a 2-digit number
- Solve problems with multiplication
- Short division
- Division using factors
- Introduction to long division
- Long division with remainders
- Solve problems with remainders
- Solve multi-step problems
- Order of operations
- Mental calculations and estimation
- Reason from know facts

Number: Fractions A

- Equivalent fractions and simplifying
- Equivalent fractions on a number line
- Compare and order (denominators)
- Compare and order (numerators)
- Add and subtract simple fractions
- Add and subtract any two fractions
- Add mixed numbers
- Subtract mixed numbers
- Multi-step problems

Number: Fractions A

- Multiply fractions by integers
- Multiply fractions by fractions
- Divide a fraction by an integer
- Mixed questions with fractions
- Fraction of an amount
- Fraction of an amount finding a whole

Measurement: converting units

- Metric measures
- Covert metric measures
- Calculate with metric measures
- Miles and kilometres
- Imperial measures