



## Course Outline

### Math FS2

*Inspiring excellence, empowering global minds*

#### Overview

Math comes under the specific area of the Early Years Foundation Stage. The Math Syllabus at GEMS Wesgreen International Primary School aims to support students to develop their ability to calculate fluently, to reason and solve problems through application of knowledge and transferable skills. Throughout the year we recover and extend objectives as the focus is on securing an understanding in the subject by developing a greater depth.

#### Learning Outcomes

The aims of all subjects state what a teacher may expect to teach and what a student may expect to experience and learn. These aims suggest how the student may be changed by the learning experience.

The aims of the Math Syllabus are to encourage and enable students to:

- Understand numbers and numerical patterns at a greater depth.
- Be taught as part of 'Problem solving, Reasoning and Numeracy', as the children get to grips with the ideas of numbers and calculations.
- To work with numbers every day, in a range of different ways. They will be using familiar objects to help them learn about how numbers are used in everyday life, and they will also be linking numbers to topic work.
- 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.
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.
- Build on a basic understanding of time: putting familiar events in sequence; measuring time
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Verbally count beyond 20, recognising the pattern of the counting system
- Build on a basic understanding of time: putting familiar events in sequence; measuring time
- Recognise and create their own simple patterns
- Put two or three items in order, according to their length or weight

- Name and describe the shape and size of solid (3D) and flat (2D) shapes

## Unit Overviews

### Term 1

#### Unit 1 – Numbers

**Approximate length: 2 weeks**

In this first unit the children will build their knowledge on number recognition, counting, ordering numbers, formation of numbers and problem solving up to 10.

Specific National Curriculum Objectives Covered:

- Count and match numicon shape to numeral. Recognises numerals 1-5
- Counts up to three or four objects by saying one number name for each item.
- Counts action or objects which cannot be moved
- Count accurately 1:1 and match sets of objects with numeral. Match quantities and objects
- Know the value of numerals 1-10
- Missing numbers

#### Unit 2 – Sorting

**Approximate length: 1 weeks**

In this first unit the children will build their knowledge on number recognition, counting, ordering numbers, formation of numbers and problem solving up to 10.

Specific National Curriculum Objectives Covered:

- Sort different objects according to property.
- Learning how to sort using groups or set with the 'same' properties.

#### Unit 3 – Comparing Groups within 5

**Approximate length: 2 weeks**

In this first unit the children will build their knowledge on number recognition, counting, ordering numbers, formation of numbers and problem solving up to 10.

Specific National Curriculum Objectives Covered:

- Recognises numerals and their quantities
- Comparing amounts
- Matching amounts
- More and fewer (one more one less)
- Counts up to three or four objects by saying one number name for each item.
- Counts action or objects which cannot be moved
- Matching numeral symbol to its cardinal value
- Match quantities and objects
- Know the value of numerals 1-5

#### Unit 4 – 2D shapes

**Approximate length: 2 weeks**

In this unit, the children explore shapes around us. They recognise 2D shapes in everyday objects. The students compare and contrast 2D shapes according to their features.

Specific National Curriculum Objectives Covered:

- To explore characteristics of 2D shapes and uses mathematical language to describe them
- To explore characteristics of everyday objects and shapes and uses mathematical language to describe them
- Recognise 2d shapes
- Describe properties of common 2d shapes

**Unit 5 - Patterns****Approximate length: 2 weeks**

In this unit, the children will be introduced to a variety of repeating patterns, progressing from ABC and ABB to ABBC. It will help them to focus on 'What is the same and what is different?' and to see the underlying pattern structure.

Specific National Curriculum Objectives Covered:

- To use familiar objects and common shapes to create and recreate patterns and build models
- To recognise, create and describe patterns

**Unit 5 - Addition and subtraction****Approximate length: 1 week**

In this unit, the children will be introduced to simple addition and subtraction using concrete objects.

Specific National Curriculum Objectives Covered:

- To use quantities and objects to subtract two single-digit numbers and count back to find the answer
- To subtract one single digit from another
- Add and subtract single-digit numbers to 10

**Unit 6 - Measuring time****Approximate length: 1 week**

In this unit, the Children use everyday language to talk about time, to compare quantities and to solve problems. The unit will also encourage children to think about times of day and the order in which they do different activities throughout the day.

Specific National Curriculum Objectives Covered:

- To use everyday language to talk about time to compare and to solve problems
- To talk about changes over time
- To talk about events, using the days of the week

**Unit 7 - Positional language****Approximate length: 1 week**

In this unit, the children explore prepositions. Positional words teach children about language and the relationships of objects in a given space.

Specific National Curriculum Objectives Covered:

- To know positional language vocabulary
- To use everyday language to talk about position
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**Unit 8 – Number bonds****Approximate length: 1 week**

In this unit, the children explore how numbers are split and combined up to 5. Children will count familiar real-world objects and then use counters to represent the real-world objects. From here, they progress to grouping counters into two groups.

Specific National Curriculum Objectives Covered:

- To add up two sets of objects
- To recall number bonds
- To solve practical problems that involve combining groups of 2, 5 or 10

**Term 2****Unit 9 – Numbers****Approximate length: 2 weeks**

In this unit the children will continue to build their knowledge on number recognition, estimating sets of numbers, problem solving, recording data via tally charts and placing numbers in order up to 20.

Specific National Curriculum Objectives Covered:

- To recognise numerals 1 to 20
- To record, using marks that they can interpret and explain
- Select the correct numeral to represent 1-5, then 1-10 objects
- To be able to use tallying to record
- To count objects which cannot be used
- To count numbers from 1 to 20
- To subitize numbers
- To group quantities according to the correct number
- To count in order
- Missing numbers
- Explore composition of numbers

**Unit 10 – Measurement (length/height/weight/capacity)****Approximate length: 2 weeks**

In this unit, the children are introduced to the different ways of measuring objects using nonstandard units of measurement. The students look at a variety of objects and compare them by height, length, weight and capacity. They are encouraged to use everyday language to talk about height, length, weight and capacity.

Specific National Curriculum Objectives Covered:

- To Order two or three items by length and height
- To use everyday language to talk about size to compare quantities and objects to solve problems
- To use 'longer' and 'shorter' to compare items
- To use 'taller' and 'shorter' to describe objects

**Unit 11 – 3D shapes****Approximate length: 2 weeks**

In this unit, the children explore shapes around us. They recognise 3D shapes in everyday objects. The students compare and contrast 3D shapes according to their features. The students also explore the different 2D shapes that create the 3D shape.

Specific National Curriculum Objectives Covered:

- Use mathematical language to describe 3D shapes
- Explores characteristics of everyday objects and 3-D shapes and uses mathematical language to describe them

**Unit 12 – Money****Approximate length: 1 week**

In this unit, the children explore the basics of money, the value of coins and notes in dhs and combining coins and notes to create different values.

Specific National Curriculum Objectives Covered:

- To know different sets of coins have the same value
- Uses everyday language to talk about money to compare quantities and objects to solve problems

**Unit 13 – Addition and subtraction****Approximate length: 2 week**

In this unit, the children will continue to build on their knowledge of simple addition and subtraction using by concrete objects up to 10.

Specific National Curriculum Objectives Covered:

- To use quantities and objects to subtract two single-digit numbers and count back to find the answer
- To subtract one single digit from another
- Add and subtract single-digit numbers to 10
- To use concrete objects to find the total number
- To know what is more and fewer
- One more one less
- To subitise numbers

**Unit 14 – Odd and Even Numbers****Approximate length: 1 week**

In this unit, the students develop their number senses by exploring odd and even numbers

Specific National Curriculum Objectives Covered:

- To say the number that is odd and even
- To identify odd and even numbers

**Unit 15 - Number bonds****Approximate length: 1 week**

In this unit, the children explore how numbers are split and combined up to 10. Children will count familiar real-world objects and then use counters to represent the real-world objects. From here, they progress to grouping counters into two groups.

Specific National Curriculum Objectives Covered:

- To look at number composition
- To find part and whole number
- To use concrete objects to create numbers

**Term 3****Unit 16 - Numbers****Approximate length: 3 weeks**

In this unit the children will continue to consolidate their knowledge on number recognition, estimating sets of numbers, problem solving, recording data via tally charts and placing numbers in order up to 20.

Specific National Curriculum Objectives Covered:

- To recognise numerals 1 to 20
- To record, using marks that they can interpret and explain
- Select the correct numeral to represent 1-5, then 1-10 objects
- To be able to use tallying to record
- To count objects which cannot be used
- To count numbers from 1 to 20
- Subitise numbers
- Count to 20 and beyond
- To match quantity to the correct number
- One to one number correspondence
- Odd and even numbers
- Skip counting
- Explore composition of numbers
- Missing numbers

**Unit 17 Doubling/Halving/Sharing****Approximate length: 1 week**

In this unit, the children explore shapes around us. They recognise 3D shapes in everyday objects. The students compare and contrast 3D shapes according to their features. The students also explore the different 2D shapes that create the 3D shape.

Specific National Curriculum Objectives Covered:

- To identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
- To identify 2-D shapes on the surface of 3-D shapes.
- To compare and sort common 3-D shapes and everyday objects.

**Unit 18 – Number bonds****Approximate length: 1 week**

In this unit, the children explore how numbers are split and combined up to 20. Children will count familiar real-world objects and then use counters to represent the real-world objects. From here, they progress to grouping counters into two groups.

Specific National Curriculum Objectives Covered:

- To say the number that is one more than a given a number
- To find one more or one less from a group of up to five objects, then 10 objects
- Add one more to a number of objects
- Find one more or one less than a given number
- To automatically recall number bonds

**Unit 19 – Addition and Subtraction Approximate length: 1 week**

In this unit, the students develop their number senses by comparing numbers that are greater than and less than up to 20 using concrete materials.

Specific National Curriculum Objectives Covered:

- To say the number that is one more than a given a number
- To find one more or one less from a group of up to 10 objects, then 20 objects
- Add one more to a number of objects
- Find one more or one less than a given number
- To subitize using dice

**Assessment**

**Formative:** Throughout the units, the children will be observed daily during their focus and continuous provision activities. The observations will help inform next steps and planning.

**Summative:** At the end of each term, we complete internal and standardized tests. This allows us to measure the students' progress throughout the term and year. At the end of the academic year, the students complete the standardized GL and the EYFS profile.