



CURRICULUM OVERVIEW

YEAR 4 MATHEMATICS

TERM 1



NUMBER SYSTEM & CALCULATION INCLUDING MENTAL STRATEGIES

NUMBER SYSTEM

- Read and write number names and whole numbers greater than 1000 and less than 0.
- Understand and explain that the value of each digit in numbers is determined by its position (place value) in that number.
- Compose, decompose and regroup whole numbers.
- Round numbers to the nearest, 10, 100, 1000, 10 000 or 100 000.
- Use knowledge of place value to multiply and divide whole numbers by 10 and 100.
- Understand the relative size of quantities to compare and order positive and negative numbers, using the symbols $<$, $>$ and $=$, and on a number line.
- Count on and back in steps of constant size: ones, tens, hundreds, thousands, starting from any number and extending beyond zero and including negative numbers.
- Recognise and extend linear and non-linear sequences and describe term to term rule.

CALCULATION INCLUDING MENTAL STRATEGIES

- Know and can recall all multiplication and division facts from 1 to 10 times tables.
- Estimate, add and subtract whole numbers with up to three digits.



PROBLEM SOLVING, 2D AND 3D SHAPES & MEASUREMENT

PROBLEM SOLVING

- Recognise and explain generalisations when adding and subtracting combinations of even and odd numbers.
- Recognise the use of objects, shapes or symbols to represent unknown quantities in addition and subtraction calculations.
- Solve mathematical word problems involving whole numbers as measurements and money.

2D AND 3D SHAPES

- Identify 2D and 3D shapes, and describe their properties.
- Match nets to their corresponding 3D shapes.
- Identify all horizontal, vertical and diagonal lines of symmetry on 2D shapes and patterns.

MEASUREMENT

- Estimate and measure perimeter of 2D shapes.
- Draw rectangles and squares on square grids, and measure their perimeter.
- Derive and use formulae to calculate perimeters of rectangles and squares.

TERM 2



NUMBER SYSTEM & CALCULATION INCLUDING MENTAL STRATEGIES

NUMBER SYSTEM

- Recognise and extend square numbers.
- Recognise the decimal place value of tenths and hundreds, (including, as representation of money) explaining the digit's value is determined by its position (place value) in that number.
- Convert decimal numbers to tenths or hundredths, and Ringgit to cents.
- Compose, decompose and regroup decimal numbers and money.
- Round decimal numbers to the nearest whole number or Ringgit when dealing with money.
- Understand the relative size of quantities to compare and order money and decimal numbers, using the symbols $<$, $>$ and $=$, and on a numberline.
- Count on and back in steps of constant size: tenths and hundredths.

CALCULATION INCLUDING MENTAL STRATEGIES

- Know and can recall all multiplication and division facts from 1 to 10 times tables.
- Estimate and multiply whole numbers up to 1000 by 1-digit whole numbers.
- Estimate and divide whole numbers up to 100 by 1-digit whole numbers.
- Understand the associative property of multiplication, and use this to simplify calculations.



PROBLEM SOLVING, STATISTICAL METHODS & MEASUREMENT

PROBLEM SOLVING

- Recognise and explain generalisations when multiplying and dividing combinations of even and odd numbers.
- Solve mathematical word problems involving decimal numbers as measurements and money.

STATISTICAL METHODS

- Plan and conduct an investigation to answer statistical questions, considering what data to collect (categorical and discrete data).
- Record, organise and represent categorical and discrete data.
- Choose and explain which representation to use in a given situation:
 - Venn and Carroll diagrams
 - tally charts and frequency tables
 - pictograms and bar charts
 - dot plots (one dot per count).
- Interpret data, identifying similarities and variations, within and between data sets, to answer statistical questions.
- Discuss conclusions, considering the sources of variation.

MEASUREMENT

- Estimate and measure area of 2D shapes, understanding that two areas can be added together to calculate the area of a compound shape.
- Draw rectangles and squares on square grids, and measure their area.
- Derive and use formulae to calculate areas of rectangles and squares.
- Estimate the area of irregular shapes on a square grid (whole and part squares).



SRI KDU
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School
SUBANG JAYA

CURRICULUM OVERVIEW

YEAR 4 MATHEMATICS

TERM 3



NUMBER SYSTEM & CALCULATION INCLUDING MENTAL STRATEGIES

NUMBER SYSTEM:

- Understand and can explain that the more parts a whole is divided into, the smaller the parts become.
- Understand and can explain that a fraction can be represented as a division of the numerator by the denominator (unit fractions and three-quarters).
- Recognise and prove that two proper fractions can have an equivalent value.
- Understand and can show percentages as the number of parts in each hundred, and use the percentage symbol (%).
- Use knowledge of equivalence to compare and order proper fractions, using the symbols =, > and <.
- Use knowledge of fractions to read and interpret a measuring scale.

CALCULATION INCLUDING MENTAL STRATEGIES:

- Know and can recall all multiplication and division facts from 1 to 10 times tables.
- Understand and can show that unit fractions can act as operators.
- Estimate, add and subtract fractions with the same denominator.



PROBLEM SOLVING & PROBABILITY

PROBLEM SOLVING:

- Recognise and choose the number operation that is needed to solve a mathematical problem.
- Compare and evaluate mathematical ideas, representations or solutions to identify advantages and disadvantages. (critiquing)
- Refine mathematical ideas or representations to develop a more effective approach or solution (improving)

PROBABILITY:

- Use language associated with chance to describe familiar events, including reference to maybe, likely, certain, impossible.
- Conduct chance experiments, using small and large numbers of trials, and present and describe the results using the language of probability.



TIME & MEASUREMENT

TIME:

- Understand the direct relationship between units of time, and convert between them.
- Read and record time accurately in digital rotation (12 and 24 hour) and on analogue clock.
- Interpret and use the information in timetables (12 and 24 hour clock).
- Find time intervals between different units: days, weeks, months and years; seconds, minutes and hours that do not bridge through 60.

MEASUREMENT:

- Estimate, compare and classify angles, using geometric vocabulary including acute, right and obtuse.
- Interpret and create descriptions of position, direction and movement, including reference to cardinal and ordinal points, and their notations.
- Understand and show how position can be described using coordinate notation.
- Read and plot coordinates in the first quadrant (with the aid of a grid).

THINKING AND WORKING MATHEMATICALLY

- Choose an example and check to see if it satisfies or does not satisfy specific mathematical criteria. (specialising)
- Recognise an underlying pattern by identifying many examples that satisfy the same mathematical criteria. (generalising)
- Form mathematical questions or ideas. (conjecturing)
- Present evidence to justify or challenge a mathematical idea or solution. (convincing)
- Identify and describe the mathematical properties of an object. (characterising)
- Organise objects into groups according to their mathematical properties. (classifying)
- Compare and evaluate mathematical ideas, representations or solutions to identify advantages and disadvantages. (critiquing)
- Refine mathematical ideas or representations to develop a more effective approach or solution (improving)

WELCOME
TO YEAR 5