

MATHEMATICS

YEAR 4

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9 Zulhijjah 1426H –Salam Aidil Adha

TOPIC & LEARNING AREA	LEARNING OBJECTIVES & LEARNING OUTCOMES
<p style="text-align: center;">1 WHOLE NUMBERS</p> <p>1. Numbers to 100 000</p> <p>2. Addition with the highest total of 100 000</p> <p>3. Subtraction within the range of 100 000</p> <p>4. Multiplication with the highest product of 100 000</p> <p>5. Division with the highest dividend of 100 00</p>	<p>Develop number sense involving numbers of up to 100 000.</p> <ol style="list-style-type: none"> i. Name and write numbers up to 100 000. ii Determine the place value of digits in any whole number up to 100 000 iii Compare value of numbers to 100 000 iv Round off numbers to the nearest tens, hundreds and thousands. <p>Add numbers to the total of 100 000</p> <ol style="list-style-type: none"> i Add any two numbers to four numbers to 100 000 ii Solve addition problems. <p>Subtract numbers from a number less than 100 000</p> <ol style="list-style-type: none"> i Subtract one or two numbers from a bigger numbers less than 100 000 ii Solve subtraction problems. <p>Multiply any two numbers with the highest product of 100 000</p> <ol style="list-style-type: none"> i Multiply three-digit numbers with <ol style="list-style-type: none"> a) 100 b) two-digit numbers ii Multiply four-digit numbers with <ol style="list-style-type: none"> a) one-digit numbers b) 10 c) two-digit numbers iii Multiply two-digit numbers with 1 000 iv Solve multiplication problems. <p>Divide a number less than 100 000 by a two-digit numbers.</p> <ol style="list-style-type: none"> i Divide four-digit numbers by <ol style="list-style-type: none"> a) one-digit numbers b) 10, 100 and 1 000 c) two-digit numbers ii Divide five-digit numbers by <ol style="list-style-type: none"> a) one-digit numbers b) 10, 100 and 1 000 c) two-digit numbers iii Solve division problems.

<p>6. Mixed operations</p>	<p>Perform mixed operation involving addition and subtraction</p> <ul style="list-style-type: none"> i Perform mixed operation involving addition and subtraction with numbers less than <ul style="list-style-type: none"> a) 100 b) 1 000 c) 10 000 ii Solve mixed operation problems
<p style="text-align: center;">2 FRACTIONS</p> <p>1. Proper Fractions</p> <p>2. Equivalent fractions</p> <p>3. Addition of fractions</p> <p>4. Subtraction of fractions</p>	<p>Name and write proper fractions with denominators up to 10.</p> <ul style="list-style-type: none"> i Name and write proper fractions with denominators up to 10 ii Compare the value of two proper fractions with <ul style="list-style-type: none"> a) the same denominators b) the numerator of 1 and different denominators up to 10. <p>Express equivalent fractions for proper fractions.</p> <ul style="list-style-type: none"> i Express and write equivalent fractions for proper fractions. ii Express equivalent fractions to its simplest form <p>Add two proper fractions with denominators up to 10</p> <ul style="list-style-type: none"> i Add two proper fractions with the same denominator up to 10 to its simplest form. <ul style="list-style-type: none"> a) with 1 as the numerator for both fractions b) with different numerators ii Add two proper fractions with different denominators up to 10 to its simplest form. <ul style="list-style-type: none"> a) with 1 as the numerator for both fractions b) with different numerators iii Solve problems involving addition of proper fractions. <p>Subtract proper fractions with denominators up to 10</p> <ul style="list-style-type: none"> i Subtract two proper fractions with the same denominator up to 10 to its simplest form. <ul style="list-style-type: none"> a) with 1 as the numerator for both fractions b) with different numerators ii Subtract two proper fractions with different denominators up to 10 to its simplest form. <ul style="list-style-type: none"> a) with 1 as the numerator for both fractions b) with different numerators iii Solve problems involving subtraction of proper fractions.

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DECIMALS

1. Decimal numbers

Understand decimal numbers

- i Name and write decimals with
 - a) one decimal place
 - b) two decimal places
- ii Recognise the place value of
 - a) tenths
 - b) hundredths
 - c) tenths and hundredths
- iii Convert fraction to decimals of
 - a) tenths
 - b) hundredths
 - c) tenths and hundredths, and vice versa

2. Addition of decimal numbers

Add decimals up to two places

- i Add any two to four decimals of one decimal place involving
 - a) decimals only
 - b) whole numbers and decimals
 - c) mixed decimals
- ii Add any two to four decimals of two decimal place involving
 - a) decimals only
 - b) whole numbers and decimals
 - c) mixed decimals
- iii Solve problems involving addition of decimal numbers.

3. Subtraction of decimal numbers

Subtract decimals up to two decimal places

- i Subtract one to two decimals from decimal of one decimal place involving
 - a) decimals only
 - b) mixed decimals
 - c) whole numbers and decimals (mixed decimals)
- ii Subtract one to two decimals of one or two decimal places
- iii Solve problems involving subtraction of decimals

4. Multiplication of decimal numbers

Multiply decimals up to two decimal places with a whole number.

- i Multiply any decimals of one decimal place with
 - a) one-digit number
 - b) 10, 100 and 1000
- ii Multiply any decimals of two decimal places with
 - a) one-digit number
 - b) 10, 100 and 1000
- iii Solve problems involving multiplication of decimals

<p>5. Division of decimal numbers</p>	<p>Divide decimals up to two decimal places by a whole number.</p> <ul style="list-style-type: none"> i Divide any decimals of one decimal place with <ul style="list-style-type: none"> a) one-digit number b) 10 ii Divide decimals of two decimal places by one-digit number iii Divide decimals by a whole number with the dividend value of up to two decimal places iii Solve problems involving division of decimals
<p style="text-align: center;">4 MONEY</p> <p>1. Money up to RM10 000</p>	<p>Understand and use vocabulary related to money</p> <ul style="list-style-type: none"> i Read and write the value of money up to RM10 000 ii Add money up to RM10 000 iii Subtract money from up to RM10 000 iv Multiply money to the highest product of RM10 000 v Divide money with dividend not more than RM10 000 vi Perform mixed operation involving addition and subtraction involving money up to RM10 000 vii Round off money to the nearest “ringgit” viii Solve problems involving of up to RM10 000
<p style="text-align: center;">5 TIME</p> <p>1. Reading and writing time</p> <p>2. Time schedule</p> <p>3. Relationship between units of time</p>	<p>Understand, read and write time in hours and minutes</p> <ul style="list-style-type: none"> i Read time in hours and minutes according to the 12-hours system. ii Write time in hours and minutes according to the 12-hours system <p>Construct a simple schedule</p> <ul style="list-style-type: none"> i Construct, read and extract information from a simple schedule ii Extract information from a calendar iii Solve simple real life problems involving reading the calendar <p>Understand the relationship between units of time</p> <ul style="list-style-type: none"> i State the relationship between units of time <ul style="list-style-type: none"> a) 1 day = 24 hours b) 1 year = 365 / 366 days c) 1 decade = 10 years

<p>4. Basic operations involving time</p>	<ul style="list-style-type: none"> ii Convert <ul style="list-style-type: none"> a) years to days, and vice versa b) decades to years, and vice versa c) years to months, and vice versa d) hours to day, and vice versa iii Convert time from <ul style="list-style-type: none"> a) hours to minutes, and vice versa b) hours and minutes to minutes, and vice versa c) minutes to hours and minutes, and vice versa <p>Add, subtract, multiply and divide units of time</p> <ul style="list-style-type: none"> i Add time involving conversion of units with answers in compound units of : <ul style="list-style-type: none"> a) hours and minutes b) years and months c) decades and years ii Subtract time involving conversion of units with answers in compound units of : <ul style="list-style-type: none"> a) hours and minutes b) years and months c) decades and years iii Multiply time involving conversion of units with answers in compound units of : <ul style="list-style-type: none"> a) hours and minutes b) years and months c) decades and years iv Divide time involving conversion of units with answers in compound units for time duration of : <ul style="list-style-type: none"> a) hours and minutes b) years and months c) decades and years v Solve problems involving basic operations of time: <ul style="list-style-type: none"> a) hours and minutes b) years and months c) decades and years
<p>5. Time duration</p>	<p>Use and apply knowledge of time to find the duration</p> <ul style="list-style-type: none"> i Read and state the start and end of an event from a schedule ii Calculate the duration of an event from a schedule in <ul style="list-style-type: none"> a) minutes b) hours c) hours and minutes within a day and two consecutive live days iii Calculate the start or the end of an event from a given duration of time and read the start or end of an event

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LENGTH

1. Measuring length

Measure lengths using standard units

- i Read measurement of length using units of millimetre
- ii Write measurement of length to the nearest scales of tenth division for :
 - a) centimetre
 - b) metre
- iii Measure and record lengths of objects using units of
 - a) millimetre
 - b) centimetre and millimetre
 - c) metre and centimetre
- iv Estimate the lengths of objects in
 - a) millimetre
 - b) metre and millimetre
 - c) centimetre and millimetre

2. Relationship between units of length

Understand the relationship between unit of length

- i State the relationship between centimetre and millimetre
- ii Convert units of length from
 - a) millimetre to centimetre and vice versa
 - b) compound units to a single unit

3. Basic operation involving length

Add and subtract length

- i Add units of length, involving conversion of units in:
 - a) millimetre
 - b) metre and millimetre
 - c) centimetre and millimetre
- ii Subtract units of length involving conversion of units in:
 - a) millimetre
 - b) metre and millimetre
 - c) centimetre and millimetre

Multiply and divide length

- i Multiply units of length involving conversion of units by:
 - a) a one-digit number
 - b) 10, 100, 1000
- ii Divide units of length, involving conversion of units by:
 - a) a one-digit number
 - b) 10, 100, 1000
- iii Solve problems involving basic operation on length

<p style="text-align: center;">7 MASS</p> <p>1. Measuring Mass</p> <p>2. Relationship between units of mass</p> <p>3. Basic operations involving mass</p>	<p>Measure mass using standard units</p> <ul style="list-style-type: none"> i Measure of masses using units of kilogram and gram ii Read measurement of masses to the nearest scales division of kilograms and grams iii Estimate the masses of objects using kilograms and grams <p>Understands the relationship between units of mass</p> <ul style="list-style-type: none"> i Convert units of mass from <ul style="list-style-type: none"> a) kilograms to grams b) kilograms and grams to grams c) kilograms and grams to kilograms <p>Add and subtract involving units of mass.</p> <ul style="list-style-type: none"> i Add mass involving units of mass in: <ul style="list-style-type: none"> a) kilograms b) grams c) kilograms and grams ii Subtract mass involving units of mass in: <ul style="list-style-type: none"> a) kilograms b) grams c) kilograms and grams <p>Multiply and divide units of mass</p> <ul style="list-style-type: none"> iii Multiply mass involving conversion of units with <ul style="list-style-type: none"> a) a one-digit number b) 10, 100, 1000 iv Divide mass involving conversion of units <ul style="list-style-type: none"> a) a one-digit number b) 10, 100, 1000 v Solve problems involving basic operations with mass
<p style="text-align: center;">8 VOLUME OF LIQUID</p> <p>1. Measuring volume of liquid</p>	<p>Measure and compare volume of liquid using standard units</p> <ul style="list-style-type: none"> i Read measurement of volume of liquid in litres and millilitres ii Write measurement of volume of liquid to the nearest scales of tenth division for <ul style="list-style-type: none"> a) litre b) millilitre iii Measure and record the volume of liquid in litres and millilitres iv Estimate the volume of liquid in litres and millilitres

<p>2. Relationship between units of volume of liquid</p> <p>3. Basic operation involving volume of liquid</p>	<p>Understand the relationship between units of volume of liquid</p> <ul style="list-style-type: none"> i Convert units of volume from: <ul style="list-style-type: none"> a) litres to millilitres b) millilitres to litres c) litres and millilitres to litres d) litres and millilitres to millilitres <p>Add and subtract units of volume</p> <ul style="list-style-type: none"> i Add volume of liquid involving conversion of units in: <ul style="list-style-type: none"> a) litre b) millilitre c) litre and millilitre ii Subtract volume of liquid involving conversion of units in: <ul style="list-style-type: none"> a) litre b) millilitre c) litre and millilitre <p>Multiply and divide units of volume</p> <ul style="list-style-type: none"> i Multiply volume of liquid involving conversion of units in: <ul style="list-style-type: none"> a) one-digit number b) 10, 100, 1000 ii Divide volume of liquid involving conversion of units by: <ul style="list-style-type: none"> a) one-digit number b) 10, 100, 1000 iii Solve problems involving volume of liquids
<p style="text-align: center;">9 SHAPE AND SPACE</p> <p>1. Two-Dimensional shapes</p>	<p>Understand the perimeter of a two-dimensional shape</p> <ul style="list-style-type: none"> i Identify the sides of a <ul style="list-style-type: none"> a) square b) rectangle c) triangle ii Measure and record the perimeter of a <ul style="list-style-type: none"> a) square b) rectangle c) triangle <p>Understand the area of a two-dimensional shape</p> <ul style="list-style-type: none"> i Identify the dimension of a <ul style="list-style-type: none"> a) square b) rectangle ii Compare with unit squares the size of a <ul style="list-style-type: none"> a) square b) rectangle iii Measure and record the dimensional of squares and rectangles

<p>2. Three-Dimensional Shapes</p>	<p>Find the area and perimeter two-dimensional shapes</p> <ul style="list-style-type: none"> i Calculate the area of squares and rectangles ii Solve problems involving perimeter and area of two-dimensional shape <p>Understand the volume for cubes and cuboids</p> <ul style="list-style-type: none"> i Identify the dimensions of cubes and cuboids ii Compare with a unit cube <ul style="list-style-type: none"> a) Cuboid b) Cube iii Measure and record the dimension of cubes and cuboids <p>Find the volume for cubes and cuboids</p> <ul style="list-style-type: none"> i Calculate the volume of cubes and cuboids ii Solve problems involving of cubes and cuboids
<p style="text-align: center;">10 DATA HANDLING</p> <p>1. Pictograph</p> <p>2. Bar Graph</p>	<p>Use a pictograph to read and display data</p> <ul style="list-style-type: none"> i Describe a pictograph featuring <ul style="list-style-type: none"> a) the picture used to represent data, b) the title of the graph c) what the axes represent d) what one unit of picture represent ii Extract and interpret information from pictographs iii Construct pictographs to illustrate given information iv Solve a given problem by organising and interpreting numerical data in pictographs <p>Use bar graph to read and display data</p> <ul style="list-style-type: none"> i Describe a bar graph featuring <ul style="list-style-type: none"> a) the title of the graph b) what the axes represent ii Extract and interpret information from bar graphs iii Construct bar graphs to illustrate given information iv Solve a given problem by organising and interpreting numerical data in bar graphs