



KEMENTERIAN PENDIDIKAN

**KURIKULUM STANDARD SEKOLAH RENDAH (SEMAKAN 2017)**

**Dokumen Penjajaran Kurikulum**

**MATEMATIK**

**TAHAP I**

VERSI BAHASA INGGERIS

**EDISI 3**



## INTRODUCTION

The preparation of the 3rd Edition Aligned Document for KSSR (Semakan 2017) is part of an effort to enhance the effectiveness of curriculum implementation. This curriculum alignment involves updating and restructuring the content of existing Level I Mathematics Subject.

This document is provided as an option for teachers in the implementation of primary school curriculum. Mathematics teachers can use the existing *Dokumen Standard Kurikulum dan Pentaksiran* KSSR (Semakan 2017) (DSKP) or the 3rd Edition Aligned Document for KSSR (Semakan 2017). This aligned document can be used together with *Module Bimbingan* (MOBIM) or various supporting materials according to pupils' abilities.

## CONTENT ORGANIZATION

This update covers several aspects including:

- i) Changes in the implementation of content for skills that need to be learned in some topics,
- ii) The use of more concise and straightforward terms and sentences for Learning Standard writing; and

- iii) The combination of several Learning Standard and Content Standards.

The content of the 3rd Edition Aligned Document for KSSR (Semakan 2017) Mathematics Level I is organized into three main columns which are Content Standards (CS), Learning Standard (LS), and Notes. The Notes column contains descriptions and intentions for specific content in the curriculum. The Notes column also contains guides for teachers in the implementation of teaching and learning which emphasizes mastery of basic concepts and encourages thinking skills. Project-based learning methods are also suggested in the Notes column to help pupils learn specific topics.

## CLASSROOM-BASED ASSESSMENT

Classroom-Based Assessment (PBD) is the process of gathering information about pupil's progress. It is planned, implemented, recorded, and reported by the teacher. The assessment of pupil's Performance Level should be referred to the Performance Standards provided in the DSKP.



# **MATHEMATICS**

**YEAR 1**



**LEARNING AREA: NUMBERS AND OPERATIONS****TOPIC: 1.0 WHOLE NUMBERS UP TO 100**

CONTENT STANDARD	LEARNING STANDARD	NOTES
1.1 Quantity intuitively	1.1.1 State the quantity by comparing.	Compare two groups of objects by one-to-one matching to state: <ul style="list-style-type: none"> <li>• many or few</li> <li>• equal or not equal</li> <li>• more or less</li> </ul>
1.2 Number value	1.2.1 Name the numbers up to 100: <ul style="list-style-type: none"> <li>(i) Count objects in groups.</li> <li>(ii) State the number for a group of objects to represent its quantity.</li> <li>(iii) Write numbers in numerals and words.</li> </ul> 1.2.2 Compare the quantity of two groups of objects.	Use concrete materials and pictorials when counting objects.  Begin with naming numbers up to 10, then followed by up to 20, up to 50 and up to 100 according to the development of the pupil's ability. Example: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10  Use concrete materials and pictorials to count and write numbers in numerals and words. Example: 10 ten 11 eleven  Compare the quantity of two groups of objects using concrete materials and pictorials. Example: 34 is larger than 24

CONTENT STANDARD	LEARNING STANDARD	NOTES									
1.3 Place value	1.3.1 State the place value and digit value of any number.	<ul style="list-style-type: none"> <li>Begin with numbers up to 10, then followed by up to 20, up to 50 and up to 100.</li> <li>Use concrete materials and various of representations to state the place value and digit value. Example 1: Write 12 according to place value and digit value.</li> </ul> <table border="1" data-bbox="1291 553 1871 659"> <tbody> <tr> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>Place value</td> <td>tens</td> <td>ones</td> </tr> <tr> <td>Digit value</td> <td>10</td> <td>2</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Example 2: Partition the number according to place value and digit value. Place value: 1 tens + 2 ones Digit value: 10 + 2</li> <li>The word partition can be replaced with other suitable words according to the development of the pupil's ability. Example: Classify, separate or categorise.</li> </ul>		1	2	Place value	tens	ones	Digit value	10	2
	1	2									
Place value	tens	ones									
Digit value	10	2									
1.4 Number patterns	1.4.1 Identify and complete the pattern for a given set of numbers.	<p>Begin with number pattern up to 10. Then, when pupils mastered it, continue with number patterns up to 20, up to 50 and up to 100.</p> <p>Example 1: State the patterns as in ones, in twos, in fives, and in tens Number pattern in ones: 14, 15, 16, 17, 18 Number pattern in twos: 32, 34, 36, 38, 40 Number pattern in fives: 25, 30, 35, 40, 45 Number pattern in tens : 10, 20, 30, 40, 50</p>									



CONTENT STANDARD	LEARNING STANDARD	NOTES
		<p>Example 2: Complete the patterns as in ones, in twos, in fives and in tens. Number pattern in ones: 34, 35, 36, ....., .....</p> <p>Number pattern in twos: 20, 22, ....., 26, .....</p> <p>Number pattern in fives: 15, ....., 25, ....., 35</p> <p>Number pattern in tens: ....., 80, ....., 60, 50</p>
1.5 Combination of numbers	1.5.1 State combinations of one digit numbers.	<ul style="list-style-type: none"> <li>• Combination of numbers is a basic concept for addition.</li> <li>• Begin the combination of numbers up to 10 first. Then when pupils mastered it, proceed to combinations of numbers up to 20, 50 and 100.</li> <li>• Use daily life situations to introduce combinations of numbers. Example: Amir has 2 pencils. Yen has 4 pencils. There are 6 pencils in total. 2 and 4 is 6.</li> <li>• Encourage mental calculation to state combinations of two numbers within the range of basic facts. Example: 0 and 8 make 8 1 and 7 make 8 2 and 6 make 8 3 and 5 make 8 4 and 4 make 8 5 and 3 make 8 6 and 2 make 8 7 and 1 make 8 8 and 0 make 8</li> </ul>

**LEARNING AREAS: NUMBERS AND OPERATIONS****TOPIC: 2.0 BASIC OPERATIONS**

<b>CONTENT STANDARD</b>	<b>LEARNING STANDARD</b>	<b>NOTES</b>
2.1 The concepts of addition and subtraction	<p>2.1.1 Introduce symbols for addition, subtraction and equal to.</p> <p>2.1.2 Using addition and subtraction symbols and equal to for writing number sentences based on given situation.</p>	<ul style="list-style-type: none"> <li>• Use and vary appropriate sentences in the context of addition and subtraction.</li> <li>• Using body gestures or object to form addition, subtraction and equals to symbols. Example 1: Introduce words related to addition in context. Total, all, sum of and etc. Example 2: Introduce the words related to subtraction in context. Difference, remaining, balance and etc. Example 3: Introduce words related to equal to. Is, so and etc.</li> <li>• Construct number sentences based on the given situation with the correct use of symbols.</li> <li>• Situations can be delivered verbally or using concrete materials and pictorials. Example 1: Ali has 4 apples. Abu gave 2 apples to Ali. How many apples does Ali have? 4 and 2 is 6. <math>4 + 2 = 6</math> Example 2: There are 6 apples. Ali ate 2 apples. How many apples are left? <math>6 - 2 = 4</math></li> </ul>

CONTENT STANDARD	LEARNING STANDARD	NOTES
2.2 Add within 100	<p>2.2.1 Add in the range of basic facts.</p> <p>2.2.2 Add two numbers with the sum within 100.</p>	<p>Use concrete materials and pictorials to add numbers within the range of basic facts.</p> <p>Example:  <math>9 + 9 = 18</math>  <math>6 + 8 = 14</math></p> <ul style="list-style-type: none"> <li>• After the pupil has mastered the addition operation within the basic facts, then proceed to the sums up to 50 and 100, according to the development of the pupil's ability.</li> </ul> <p>Example:  <math>25 + 4 = 29</math>  <math>36 + 14 = 50</math></p> <ul style="list-style-type: none"> <li>• Use concrete materials or pictorials about daily life situations and pupils' experiences to express sentences verbally.</li> </ul> <p>Example based on daily life situations:  There are 15 male pupils and 20 female pupil.  The total number of pupils is 35.</p>
2.3 Subtract within 100	<p>2.3.1 Subtract in the range of basic facts.</p> <p>2.3.2 Subtract two numbers within 100.</p>	<p>Use concrete materials and pictorial to subtract numbers within the range of basic facts.</p> <p>Example:  <math>16 - 8 = 8</math>  <math>10 - 4 = 6</math></p> <ul style="list-style-type: none"> <li>• After the pupil has mastered the subtraction operation within the range of basic facts, then proceed to subtraction up to 50 and 100, according to the development of the pupil's ability.</li> </ul> <p>Example:  <math>46 - 25 = 21</math></p>

CONTENT STANDARD	LEARNING STANDARD	NOTES
		<ul style="list-style-type: none"> <li>Use concrete materials or pictorials that related with daily life situations and pupils' experience to express sentences verbally. Example: Class A has 26 pupils. 7 pupils are female. So, there are 19 male pupils.</li> </ul>
2.4 Repeated addition	2.4.1 Write number sentences of repeated addition in twos, fives and tens.	<ul style="list-style-type: none"> <li>Repeated addition is a basic concept of multiplication.</li> <li>Use concrete materials and pictorials to introduce repeated addition.</li> <li>Using daily life situations to write number sentence of repeated addition. Example: There are 5 boxes of donut. Each box has 4 donuts. How many donut in total? <math>4 + 4 + 4 + 4 + 4 = 20</math> There are 20 donuts in total.</li> </ul>
2.5 Repeated subtraction	2.5.1 Write repeated subtraction number sentences of twos, fives and tens.	<ul style="list-style-type: none"> <li>Repeated subtraction is a basic concept of division.</li> <li>Using concrete materials and pictorials to introduce repeated subtraction.</li> <li>Using daily life situations to write number sentences of repeated subtraction. Example: Dad bought 6 pieces of curry puffs. Dad gave the same amount to his 3 children. How many curry puffs each child get? <math>6 - 2 - 2 - 2 = 0</math> Each child gets 2 pieces of curry puffs.</li> </ul>

**LEARNING AREAS: NUMBERS AND OPERATIONS****TOPIC: 3.0 MONEY**

CONTENT STANDARD	LEARNING STANDARD	NOTES
3.1 Notes and coins	3.1.1 Identify coins and notes of Malaysian currency. 3.1.2 Represent the value of money in: (i) Sen up to RM1. (ii) Ringgit up to RM10. 3.1.3 Convert money in: (i) Coins up to RM1. (ii) Notes up to RM10.	Use real currency to introduce Malaysian currency.  Hands-on activities involving combination of notes up to RM10 and coins up to RM1. Example: 20 sen and 50 sen is 70 sen. RM1 and RM5 is RM6. <ul style="list-style-type: none"> <li>• Use concrete materials and pictorials to convert money.</li> <li>• Convert money does not involve the combination of coins and notes.</li> </ul>
3.2 Add and subtract operations	3.2.1 Add and subtract money within RM10.	<ul style="list-style-type: none"> <li>• Apply addition and subtraction operations using daily life situations or experiences with pupils' financial resources such as from parents, duit raya, gifts, wages or savings.</li> <li>• Conduct activities to record savings and daily spending and emphasise the importance of saving at young age.</li> <li>• Use concrete materials and pictorials for addition and subtraction :</li> </ul> Example: (i) 20 sen and 50 sen is 70 sen. $20 \text{ sen} + 50 \text{ sen} = 70 \text{ sen}$ (ii) RM1 and RM5 is RM6. $\text{RM1} + \text{RM5} = \text{RM6}$ (iii) 40 sen - 10 sen = 30 sen

**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 4.0 TIME**

CONTENT STANDARD	LEARNING STANDARD	NOTES
4.1 Days and months	<p>4.1.1 State the sequence of events in a day.</p> <p>4.1.2 Name the days of the week.</p> <p>4.1.3 Name the months of the year.</p>	<p>Use daily life situations with pictures or verbally to tell about time. Example: 7 in the morning go to school. 10 in the morning go to the canteen 1 in the evening back home. 6 in the evening playing in the field.</p> <p>Use daily life situations either verbally or with pictures to state the days of the week. Example 1: The assembly is on Monday. The PJK is on Tuesday. The Mathematic's Club is on Wednesday. Example 2: Today is Thursday. Yesterday was Wednesday. Tomorrow is Friday. The day after tomorrow is Saturday.</p> <ul style="list-style-type: none"> <li>• Use daily life situations either verbally or with pictures to state the months of the year.</li> <li>• Use a calendar to express events by month of the year.</li> </ul>

CONTENT STANDARD	LEARNING STANDARD	NOTES
4.2 Clock face	4.2.1 Identify the hour hand on the clock face.  4.2.2 State and write the time in hours, half an hour and a quarter hour using an analogue clock.	Use real analogue clocks and pictorials to introduce the hour hand and minute hands. Example: The short needle is the hour hand. The long needle is the minute hand. The numbers 1 to 12 can be seen on the clock face.  State and write time in hours using concrete materials and then followed by illustrative materials. Example: 2 o'clock. Half past 2. Quarter past 2.

**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 5.0 MEASUREMENT**

CONTENT STANDARD	LEARNING STANDARD	NOTES
5.1 Relative units for to measure length, mass and volume of liquids	<p>5.1.1 Measure the length and mass of objects and the volume of liquids using non-standard units.</p> <p>5.1.2 Compare the length, mass and volume of liquids of two or more objects using non-standard units.</p>	<p>Use of non-standard units and non-standard objects to measure an object.</p> <p>Examples of non-standard units: Hand span, cubit, crotch, arm span</p> <p>Examples of measuring lengths with non-standard objects: Measure the length of the book with an eraser or a pencil or a paper clip etc.</p> <p>Use daily life situations verbally or in stories when comparing two or more measurements. Example: Longer than, shorter than, less than, more than, much, little, most, least, same, lightest, heaviest, hardest, light, lighter or heavier.</p>



**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 6.0 SPACE**

CONTENT STANDARD	LEARNING STANDARD	NOTES
6.1 Three-dimensional shapes	<p>6.1.1 Name the shape of a cuboid, cube, cone, square pyramid, cylinder and sphere.</p> <p>6.1.2 State the number of faces, edges and vertices of a three-dimensional shape.</p> <p>6.1.3 Arrange objects according to the pattern.</p> <p>6.1.4 Build new models from combinations of three-dimensional shapes.</p>	<p>Relate three-dimensional shapes to shapes from everyday life. Example: A cuboid shape can be seen on the tissue box.</p> <p>Use materials that exist in three-dimensional shapes to show the number of faces, sides and vertices.</p> <p>Use concrete materials and pictorials to arrange three-dimensional shapes into patterns.</p> <p>Use situations from everyday life to build new shapes from three-dimensional materials. Example: Robots, houses and etc.</p>
6.2 Two-dimensional shapes	<p>6.2.1 Name the shapes of square, rectangle, triangle and circle.</p> <p>6.2.2 State straight lines, side, angle, corner and curved side of two-dimensional shapes.</p> <p>6.2.3 Arrange two-dimensional shapes according to the pattern.</p> <p>6.2.4 Create pattern based on two-dimensional shapes.</p>	<p>Relate two-dimensional shapes to shapes in everyday life. Example: You see the rectangular shape on classroom doors, textbooks, and so on.</p> <p>Use concrete materials and pictorials to show the number of straight lines, sides, angles and curves.</p> <p>Use concrete materials and pictorials to arrange two-dimensional shapes according to a pattern.</p> <p>Arrange and combine several two-dimensional shapes to create a pattern.</p>

**LEARNING AREA: STATISTICS AND PROBABILITY****TOPIC: 7.0 DATA MANAGEMENT**

<b>CONTENT STANDARD</b>	<b>LEARNING STANDARD</b>	<b>NOTES</b>
7.1 Collect, classify and arrange data	7.1.1 Collect data based on daily life situations.	Use daily life situations to find information. Example: favourite colour, favourite food, favourite animal, etc
7.2 Pictograph	7.2.1 Read and obtain information from pictographs.	<ul style="list-style-type: none"> <li>• Read and name information about real-life situations shown in pictographs.</li> <li>• The indicator provided involves one unit of picture representing one value.</li> <li>• Emphasize on how to read information from pictographs using the given indicators.</li> </ul>

# **MATHEMATICS**

**YEAR 2**

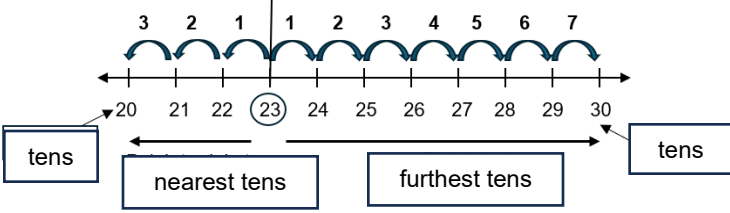


**LEARNING AREAS: NUMBERS AND OPERATIONS****TOPIC: 1.0 WHOLE NUMBERS UP TO 1000**

CONTENT STANDARD	LEARNING STANDARD	NOTES
1.1 Number value	1.1.1 Name the value of numbers up to 1000: (i) Count in hundreds up to 1000 and write in numerals and words.  (ii) Count in ones and in tens up to 1000 and write in numerals and words.	Use concrete materials and pictorials to count. Example 1: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000. One hundred, two hundred, three hundred, four hundred, five hundred, six hundred, seven hundred, eight hundred, nine hundred, one thousand. Example 2: 10 Hundred is one thousand. One thousand is written as 1000.  Use pictorials or representations to count. Example 1: Counting in ones, in fives and in tens. 100, 101, 102, 103, 104, 105 410, 415, 420, 425, 430, 435 300, 310, 320, 330, 340, 350 Example 2: Count the picotials given. 100, 200, 300, 400, 410, 420, 430, 431, 432 Example 3: Write in numbers and words. In numerals: 430 In words: four hundred and thirty Example 4: Match numbers with words.

CONTENT STANDARD	LEARNING STANDARD	NOTES												
	<p>1.1.2 Compare the values of two numbers.</p> <p>1.1.3 Complete the numbers in ascending and descending order.</p>	<p>Use an object representation to compare the values of two numbers.</p> <p>Example 1: Compare the hundreds place value between 294 and 315. 300 is greater than 200. 315 is greater than 294.</p> <p>Example 2: Compare the tens place value between 154 and 187. 150 is smaller than 180. 154 is smaller than 187.</p> <p>Example 3: Compare the ones place value between 472 and 477. 477 is greater than 472. 472 is smaller than 477.</p> <p>Example 1: 144, 154, ....., 174, 184, .....</p> <p>Example 2: 412, 512, 612, ....., ....., 912</p>												
1.2 Place value	1.2.1 State the place value and digit value of any number.	<ul style="list-style-type: none"> <li>Use concrete materials and pictorials to show place value and digit value.</li> </ul> <p>Example 1: Write 136 according to place value and digit value.</p> <table border="1" data-bbox="1249 1182 1921 1295"> <tbody> <tr> <td></td> <td>1</td> <td>3</td> <td>6</td> </tr> <tr> <td>Place value</td> <td><b>hundreds</b></td> <td><b>tens</b></td> <td><b>ones</b></td> </tr> <tr> <td>Digit value</td> <td><b>100</b></td> <td><b>30</b></td> <td><b>6</b></td> </tr> </tbody> </table> <p>Example 2: Partition the numbers according to place value and digit value.</p>		1	3	6	Place value	<b>hundreds</b>	<b>tens</b>	<b>ones</b>	Digit value	<b>100</b>	<b>30</b>	<b>6</b>
	1	3	6											
Place value	<b>hundreds</b>	<b>tens</b>	<b>ones</b>											
Digit value	<b>100</b>	<b>30</b>	<b>6</b>											

CONTENT STANDARD	LEARNING STANDARD	NOTES
		Place value: 1 hundred + 3 tens + 6 ones Digit value: 100 + 30 + 6 <ul style="list-style-type: none"> <li>Partition can be replaced by other suitable words, according to the development of the pupil's ability. Example: Classify, separate and categorise.</li> </ul>
1.3 Number pattern	1.3.1 State any number pattern of by ones, up to by tens and by hundreds.  1.3.2 Complete various simple number patterns.	State the number patterns of by ones, by tens and by hundreds in ascending and descending order.  Only need to complete the number patterns by ones, by twos, by fives and by tens without stating the number pattern.
1.4 Estimate	1.4.1 Give a reasonable estimate for the quantity of objects.	<ul style="list-style-type: none"> <li>Estimation is made by stating the quantity based on a reference set using the terms of less than or more than.</li> <li>Use concrete materials and pictorials as a reference set to estimate the number of objects. Example: Suppose the number of candies in container A is 100. What is the estimated number of candies in container B? Estimate by the students: Container B is more than 100.</li> </ul>

CONTENT STANDARD	LEARNING STANDARD	NOTES
1.5 Round off numbers	1.5.1 Round off whole numbers to the nearest tens and hundreds.	<ul style="list-style-type: none"> <li>• Use either number lines or simulation to introduce the concept of rounding off.</li> <li>• Use nearer or furthest comparison during simulations or number lines to introduce the concept of nearest in round off numbers. Example of simulation: Pupils stand in a line. Lily is closer to Diana. Hong is furthest from Sani. Sani is closer to David.</li> <li>• Round off can be made using the number line. Example of number line: Round off 23 to the nearest tens. 23 is between 20 and 30. 23 is nearer to 20. 20 is the nearest tens to 23. 23 when rounded off become 20.</li> </ul> 



**LEARNING AREAS: NUMBERS AND OPERATIONS****TOPIC: 2.0 BASIC OPERATIONS**

CONTENT STANDARD	LEARNING STANDARD	NOTES
2.1 Add within 1000	2.1.1 Add up to three numbers within the sum of 1000.	<ul style="list-style-type: none"> <li>Use Dienes block to add hundreds with ones, hundreds with tens, hundreds with hundreds according to the development of the pupils' ability. Example 1: Use number combinations to introduce the addition operation.. 120 and 40 is 160. <math>120 + 40 = 160</math></li> <li>Example 2: <math>115 + 4 = 119</math> <math>115 + 2 + 1 = 118</math> <math>115 + 20 + 30 = 165</math> <math>115 + 100 + 500 = 715</math></li> <li>Use the standard written method to show addition.</li> <li>Use real-life situations to solve addition problems. Example: Store A sells 70 pairs of socks, 135 pairs of pants and 200 pairs of shirts. Calculate the amount successfully sold. <math>70 + 135 + 200 = 405</math></li> </ul> $\begin{array}{r} 70 \\ + 135 \\ \hline 205 \end{array} \quad \begin{array}{r} 205 \\ + 200 \\ \hline 405 \end{array}$

CONTENT STANDARD	LEARNING STANDARD	NOTES
		<ul style="list-style-type: none"> <li>Use concrete materials or pictorials about daily life situations and pupils' experiences to state sentences verbally. Examples based on daily life situations: Aida has 285 oranges. Dad gave her 80 oranges. The total number of oranges are 365.</li> </ul>
2.2 Subtract within 1000	2.2.1 Subtract up to three numbers within 1000.	<ul style="list-style-type: none"> <li>Use Dienes block to subtract the hundreds with ones, hundreds with tens, hundreds with hundreds according to the development of pupil's ability. Example: <math>387 - 2 = 385</math> <math>387 - 1 - 4 = 382</math> <math>387 - 40 = 347</math> <math>387 - 20 - 40 = 327</math> <math>387 - 200 = 187</math> <math>387 - 100 - 100 = 187</math></li> <li>Use standard written method to show the subtraction operation.</li> <li>Solve subtraction problems in real everyday situations problems. Example: A school has 850 pupils. At the end of 2024, a total of 167 Year 6 pupils will transfer to secondary school. How many pupils are left? <math>850 - 167 = 683</math>   <math display="block">\begin{array}{r} 850 \\ - 167 \\ \hline 683 \end{array}</math> </li> </ul>

CONTENT STANDARD	LEARNING STANDARD	NOTES
		<ul style="list-style-type: none"> <li>Use concrete materials or pictorrials about daily life situations and pupils' experiences to state problem solving sentences verbally. Example: There are 480 durian. A total of 190 durians were sold. The number of unsold durians is 290.</li> </ul>
2.3 Multiply within 1000	<p>2.3.1 Multiply within the range of basic facts.</p> <p>2.3.2 Multiply a single digit number by 10.</p>	<ul style="list-style-type: none"> <li>Use repeated addition to introduce the basic concept of multiplication. Example: <math>2 + 2 + 2 = 6</math> <math>3 \times 2 = 6</math></li> <li>Basic facts include multiplying one-digit number by one-digit number. Example: <math>3 \times 2 = 6</math></li> <li>Shows the relationship between <math>a \times b = b \times a</math> Example: <math>3 \times 2 = 6</math> <math>2 \times 3 = 6</math> So, <math>3 \times 2 = 2 \times 3</math></li> <li>Provide daily life situations or illustrated situations to solve multiplication problems. Example: There are 5 people in each car. How many people are in 3 cars? <math>5 \times 3 = 15</math>  Example: <math>3 \times 10 = 30</math> <math>8 \times 10 = \dots</math> <math>\dots \times 10 = 60</math></li> </ul>

CONTENT STANDARD	LEARNING STANDARD	NOTES
2.4 Divide within 1000	<p>2.4.1 Divide within the range of basic facts.</p> <p>2.4.2 Divide any two-digit number by 10.</p>	<ul style="list-style-type: none"> <li>• Division as sharing, grouping, repeated subtraction and inverse multiplication.</li> <li>• Basic division facts including with remainder and without remainder. Example 1: Divide the 12 balloons equally among 3 people. <math>12 \div 3 = 4</math> Example 2: <math>17 \div 5 = 3</math> remainder 2 (Use the standard written method)</li> <li>• Provide daily life situations or illustrated situations to solve division problems. Example: 24 pencils are divided equally into 2 different boxes. How many pencils are in one box? <math>24 \div 2 = 12</math></li> </ul> <p>Example 1: <math>30 \div 10 = 3</math> <math>60 \div \dots = 6</math> <math>\dots \div 10 = 9</math> Example 2: There are 50 books. The books are distributed equally to 10 people. How much does each person get? <math>50 \div 10 = 5</math></p>

**LEARNING AREAS: NUMBERS AND OPERATIONS****TOPIC: 3.0 FRACTIONS AND DECIMALS**

CONTENT STANDARD	LEARNING STANDARD	NOTES
3.1 Concept of one over two and one over four in proper fraction	3.1.1 Identify one over two, one over four, two over four and three over four.	<ul style="list-style-type: none"> <li>Emphasize the concept of fractions by introducing the concept of <b>whole</b> and <b>parts</b>.</li> <li>Encourage paper folding activities to introduce one over two, one over four, two over four and three over four.</li> <li>Introduce one over two, one over four, two over four and three over four as <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math>, <math>\frac{3}{4}</math>.</li> </ul>
3.2 Proper fraction	3.2.1 State, write and name proper fractions with numerators 1 to 9 and denominators 1 to 10. 3.2.2 Compare the value of the two proper fractions given.	Use concrete materials, pictorials and paper folds to explain the concept of proper fractions. Use a diagram to represent the given fraction. Compare two fractions based on paper folds, fraction tables, and diagrams.
3.3 Decimals	3.3.1 Convert fractions of tenths into decimals. 3.3.2 Represent diagrams according to the decimal numbers given. 3.3.3 Compare the value of two given decimals.	Use diagrams and number lines to explain the concept of decimals. State and write decimals numbers from zero point one to zero point nine according to the shading on the diagram and on the number line. <ul style="list-style-type: none"> <li>Compare the values of two decimals based on paper folds, number lines and diagrams.</li> <li>Compare the values of fractions with the values of decimals using diagrams and number lines.</li> </ul>

**LEARNING AREAS: NUMBERS AND OPERATIONS****TOPIC: 4.0 MONEY**

CONTENT STANDARD	LEARNING STANDARD	NOTES
4.1 Notes and coins	4.1.1 Identify notes of Malaysian currency up to RM100.  4.1.2 Determine the value of money up to RM100.	Use concrete materials and pictorials to introduce money RM1, RM5, RM10, RM20, RM50 and RM100, then 10 sen, 20 sen and 50 sen.  Use concrete material and pictorials to determine the value of money. Example: RM20 is the same value as 2 pieces of RM10 or 4 pieces of RM5 or 20 pieces of RM1
4.2 Add values of money	4.2.1 Add up to three values of money within the sum of RM100.	<ul style="list-style-type: none"> <li>• Begin addition activities involves two values of money, then followed by three values of money.</li> <li>• Use daily life situations verbally and word problems to introduce addition of money.</li> </ul> Example 1: In January, Amy saved RM29. In February, Amy saved RM13. How much is Amy saving? $RM29 + RM13 = RM42$ Example 2: Mom bought a bookshelf worth RM22, a chair priced at RM32 and table priced at RM24. How much does mom have to pay?  $\begin{array}{r} + \quad RM22 \\ \quad RM32 \\ \hline \quad RM54 \end{array} \quad \begin{array}{l} \rightarrow \\ \leftarrow \end{array} \quad \begin{array}{r} + \quad RM54 \\ \quad RM24 \\ \hline \quad RM78 \end{array}$  $RM22 + RM32 + RM24 = \boxed{RM78}$

CONTENT STANDARD	LEARNING STANDARD	NOTES
4.3 Subtract values of money	4.3.1 Subtract up to three values of money within RM100.	<ul style="list-style-type: none"> <li>Subtract two values of money, then followed by three values of money.</li> <li>Use daily life situations to introduce the subtraction of money. Example 1: David has RM54. He has bought a book worth RM23. What is the remaining amount? <math>RM54 - RM23 = RM31</math></li> <li>Example 2: Sara has RM85. He has bought a shirt that cost RM15 and a pair of pants that cost RM27. What is the balance?  <math>RM85 - RM15 - RM27 =</math>   <math display="block">\begin{array}{r} \phantom{-} \phantom{RM}85 \\ - \phantom{RM}15 \\ \hline \phantom{RM}70 \end{array} \quad \begin{array}{l} \phantom{RM}70 \\ \phantom{RM}27 \\ \hline \phantom{RM}43 \end{array}</math>   <math>RM85 - RM15 - RM27 = \boxed{RM43}</math> </li> </ul>
4.4 Multiply values of money	4.4.1 Multiply values of money and the product up to RM100.	<ul style="list-style-type: none"> <li>Multiply the value of money using number sentences.</li> <li>Use daily life situations to introduce multiplication of money. Example 1: Raju receives RM5 of pocket money everyday. How much money did Raju receive for 5 days?  <math>RM5 \times 5 = RM25</math></li> </ul>

CONTENT STANDARD	LEARNING STANDARD	NOTES
4.5 Divide values of money	4.5.1 Divide values of money within RM100.	<ul style="list-style-type: none"><li>• Use sample notes to divide money values while solving number sentences.</li><li>• Use daily life situations to create number sentences. Example 1: Richard saved RM80 for 10 weeks. How much money did Richard save each week? <math>RM80 \div 10 = RM8</math> Example 2: The price of 6 kilograms of durian is RM48. How much does 1 kilogram of durian cost? <math>RM48 \div 6 = RM8</math></li></ul>



**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 5.0 TIME**

CONTENT STANDARD	LEARNING STANDARD	NOTES
5.1 Time in hours and minutes	5.1.1 Read and write time in hours and minutes.  5.1.2 Record time in hours and minutes.	<ul style="list-style-type: none"> <li>• Use a real analogue clock and pictorial representation to read the minute graduations on the clock face.</li> <li>• Introduce quarter hour, half an hour and 1 hour using the minute hand and hour hand of an analogue clock.</li> <li>• Use a daily life situations or pictorials to read and write time in hours and minutes. Example: Ten minutes past seven. 7:10</li> </ul> <p>Record time of pupils' daily life situations involving hours and minutes. Example: Going to school at 7:00 a.m. Recess at 10:30 a.m. Return from school at 1:00 p.m. Play at 6:00 p.m. Go to sleep at 10:00 p.m.</p>
5.2 Relationship in time	5.2.1 State the relationship between days with hours and hours with minutes.	Use a.an nalogue clocks or pictorials to show that 1 hour equals to 60 minutes and 1 day equals to 24 hours.

**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 6.0 MEASUREMENT**

CONTENT STANDARD	LEARNING STANDARD	NOTES
6.1 Length	6.1.1 Recognise unit of length.  6.1.2 Measure length.  6.1.3 Estimate length.	<ul style="list-style-type: none"> <li>• Introduce the concept of length as a measure of distance between two points.</li> <li>• Introduce units of centimetres (cm) and metres (m) by using appropriate measuring instrument. Example: Ruler and tape measure.</li> </ul> <p>Use concrete materials to measure and read lengths. Example: Textbooks, desks, erasers, pencils and etc.</p> <p>Estimate based on a set of reference of concrete materials and pictorials. Example: The length of book A is 20 cm. What is the approximate length of book B? Student's estimate: Less than 20 cm or More than 20 cm.</p>
6.2 Mass	6.2.1 Recognise unit of mass.  6.2.2 Weigh objects.	<p>Introduce the units kilogram (kg) and gram (g) by using a suitable measuring instrument. Example: Scales</p> <p>Use concrete materials to weigh and read the weight of objects. Example: Textbooks, school bags and etc.</p>



**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 7.0 SPACE**

CONTENT STANDARD	LEARNING STANDARD	NOTES
7.1 Three-dimensional shapes	7.1.1 Identify three-dimensional shapes based on descriptions.  7.1.2 Identify basic shapes of three-dimensional shapes.  7.1.3 Identify various nets of three-dimensional shapes.	<ul style="list-style-type: none"> <li>• Three-dimensional shapes including cube, cuboid, pyramid with a square base, cylinder and cone.</li> <li>• State the characteristics in terms of faces, sides and vertices.</li> </ul> <p>Use concrete materials followed by pictorials to introduce various nets of three-dimensional shapes.</p> <ul style="list-style-type: none"> <li>• Use hands-on activities to demonstrate various nets of three-dimensional shapes.</li> <li>• Name the correct three-dimensional shapes based on the given nets.</li> </ul>
7.2 Two-dimensional shapes	7.2.1 Identify two-dimensional shapes based on descriptions.  7.2.2 Draw basic shapes of two-dimensional shapes.	<ul style="list-style-type: none"> <li>• Two-dimensional shapes including square, rectangle, triangle and circle.</li> <li>• Identify two-dimensional shapes using pictorial representations.</li> <li>• State the characteristics in terms of straight sides, curved sides and vertices.</li> </ul> <p>Use concrete materials of three-dimensional shapes to draw two-dimensional basic shapes.</p>

**LEARNING AREA: STATISTICS AND PROBABILITY****TOPIC: 8.0 DATA MANAGEMENT**

<b>CONTENT STANDARD</b>	<b>LEARNING STANDARD</b>	<b>NOTES</b>
8.1 Collect, classify and arrange data	8.1.1 Collect data based on daily-life situations.	Use daily life situations to collect data, classify and arrange data.  Example: Favourite colour, favourite food, favourite animal and etc.
8.2 Bar chart	8.2.1 Read and obtain information from bar chart.	<ul style="list-style-type: none"> <li>• Introduce horizontal and vertical axes.</li> <li>• Explains information shown on horizontal and vertical axes.</li> <li>• Solve problems involving daily life situations based on the bar chart provided.</li> </ul>



# MATHEMATICS

YEAR 3

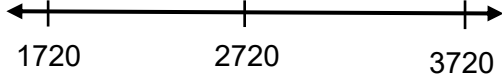




**LEARNING AREA: NUMBERS AND OPERATIONS****TITLE: 1.0 WHOLE NUMBERS UP TO 10 000**

CONTENT STANDARD	LEARNING STANDARD	NOTES																										
1.1 Number value	1.1.1 Name numbers up to 10 000:  (i) Count in thousands up to 10 000 and write in numerals and words.	<ul style="list-style-type: none"> <li>Use concrete materials and pictorials to represent counting in ones, in tens, in hundreds and in thousands. Example: Dienes block and etc.</li> <li>Count in thousands in ascending order up to 10 000. Example 1:</li> </ul> <table border="1" data-bbox="1226 667 1919 789"> <tr> <td>1000</td> <td>2000</td> <td>3000</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>One thousand</td> <td>Two thousand</td> <td>Three thousand</td> <td>Four thousand</td> <td>Five thousand</td> </tr> </table> <table border="1" data-bbox="1226 841 1919 967"> <tr> <td><b>6000</b></td> <td><b>7000</b></td> <td><b>8000</b></td> <td><b>9000</b></td> <td><b>10 000</b></td> </tr> <tr> <td>Six thousand</td> <td>Seven thousand</td> <td>Eight thousand</td> <td>Nine thousand</td> <td>Ten thousand</td> </tr> </table> Example 2: 10 blocks of Dienes of 1000 is 10 000.  Example 3: Count and write the values in numerals and words. <table border="1" data-bbox="1215 1201 1936 1235"> <tr> <td>1000</td> <td>1000</td> <td>1000</td> <td>500</td> <td>20</td> <td>7</td> </tr> </table> In numerals : 3527 In words: Three thousand five hundred and twenty seven	1000	2000	3000	4000	5000	One thousand	Two thousand	Three thousand	Four thousand	Five thousand	<b>6000</b>	<b>7000</b>	<b>8000</b>	<b>9000</b>	<b>10 000</b>	Six thousand	Seven thousand	Eight thousand	Nine thousand	Ten thousand	1000	1000	1000	500	20	7
1000	2000	3000	4000	5000																								
One thousand	Two thousand	Three thousand	Four thousand	Five thousand																								
<b>6000</b>	<b>7000</b>	<b>8000</b>	<b>9000</b>	<b>10 000</b>																								
Six thousand	Seven thousand	Eight thousand	Nine thousand	Ten thousand																								
1000	1000	1000	500	20	7																							



CONTENT STANDARD	LEARNING STANDARD	NOTES																
		<p>Example 2: Compare using the place values for 2971, 2716 and 6771.</p> <table border="1" data-bbox="1215 444 1908 586"> <thead> <tr> <th>Thousands</th> <th>Hundreds</th> <th>Tens</th> <th>Ones</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>9</td> <td>7</td> <td>1</td> </tr> <tr> <td>2</td> <td>7</td> <td>1</td> <td>6</td> </tr> <tr> <td>6</td> <td>7</td> <td>7</td> <td>1</td> </tr> </tbody> </table> <p>6771 is more than 2716 and 2971. 6771 is the largest. 2716 is the smallest. 2971 is more than 2716.</p> <p>Example 3: Compare 1720, 2720 and 3720 using number line.</p>  <p>1720 is the smallest. 3720 is the largest.</p> <ul style="list-style-type: none"> <li>• Arrange and complete numbers in ascending and descending order.</li> </ul> <p>Example 1: Arrange 2971, 2716 and 6771 in ascending and descending order. Arrange in ascending order: 2716, 2971, 6771 Arrange in descending order: 6771, 2971, 2716</p> <p>Example 2: Fill in the blanks. 4235, 4240, ....., ....., 4255</p>	Thousands	Hundreds	Tens	Ones	2	9	7	1	2	7	1	6	6	7	7	1
Thousands	Hundreds	Tens	Ones															
2	9	7	1															
2	7	1	6															
6	7	7	1															

CONTENT STANDARD	LEARNING STANDARD	NOTES
1.2 Estimate	1.2.1 Give reasonable estimation for the quantity	Estimation made based on reference set and using word of less than or more than. Example: The mass of jar A is 2500 <i>g</i> . Estimate mass of jar B and jar C. Pupils' estimation: Jar C is more than 2500 <i>g</i> . Pupils' estimation: Jar B is less than 2500 <i>g</i> .
1.3 Round off numbers	1.3.1 Round off whole numbers up to nearest thousands.	Round off can be made using number line. Example 1: Round off 6400 to the nearest thousands. 6400 is between 6000 and 7000. 6400 is closer to 6000. 6400 rounded off to the nearest thousands is 6000. Example 2: Round off 2637 to the nearest thousands. 2637 is between 2000 and 3000. 2637 is closer to 3000. 2637 rounded off to the nearest thousands is 3000.
1.4 Number pattern	1.4.1 Identify number patterns of given numbers in ascending and descending order from ones up to tens, hundreds and thousands.  1.4.2 Complete various simple number patterns.	Sequence of numbers can reach up to six numbers. Example: Ascending order: 4000, 5000, 6000, 7000, 8000 Descending order: 8700, 8600, 8500, 8400, 8300  Example: 6580, ....., 6560, 6550, ....., ..... 9100, 9200, ....., ....., 9500, 9600

**LEARNING AREAS: NUMBERS AND OPERATIONS****TOPIC: 2.0 BASIC OPERATIONS**

CONTENT STANDARD	LEARNING STANDARD	NOTES																
2.1 Add and subtract within 10 000	2.1.1 Solve addition and subtraction problems up to three numbers and the sum within 10 000, involving daily life situations.	<p>Use daily life situations to add and subtract progressively according to the development of pupil's ability.</p> <p>Example 1: Store A has 2347 cans of milk. Store B has 653 cans of milk. How many cans of milk altogether?</p> <table border="1" data-bbox="1297 662 1822 803"> <thead> <tr> <th>Thousands</th> <th>Hundreds</th> <th>Tens</th> <th>Ones</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>3</td> <td>4</td> <td>7</td> </tr> <tr> <td>+</td> <td>6</td> <td>5</td> <td>3</td> </tr> <tr> <td>3</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Example 2: Linda has 5064 apples. Mary has 28 more apples than Linda. How many apples do they have? <math>5064 + 28 = \dots</math></p> $\begin{array}{r} 5064 \\ + \quad 28 \\ \hline 5092 \end{array}$ <p>Example 3: Shop A has 3426 face masks. The number of face masks that have been sold is 392. How many face masks are left?</p> $3426 - 392 = \dots$	Thousands	Hundreds	Tens	Ones	2	3	4	7	+	6	5	3	3	0	0	0
Thousands	Hundreds	Tens	Ones															
2	3	4	7															
+	6	5	3															
3	0	0	0															

CONTENT STANDARD	LEARNING STANDARD	NOTES
	2.1.2 Solve mixed operations of addition and subtraction within 10 000, involving daily life situations.	$\begin{array}{r} 3426 \\ - 392 \\ \hline 3034 \end{array}$ <p>Use daily life situations to solve mixed operation problems. Example: Company A prepares 2060 gifts. 580 gifts were added due to the overwhelming response. 1550 gifts given to lucky visitors. How many gifts are left?</p> $2060 + 580 - 1550 = \boxed{\phantom{000}}$ $\begin{array}{r} 2060 \\ + 580 \\ \hline 2640 \end{array} \quad \begin{array}{r} 2640 \\ - 1550 \\ \hline 1090 \end{array}$ $2060 + 580 - 1550 = \boxed{1090}$
2.2 Multiplication and division within 10 000	2.2.1 Solve multiplication and division of any numbers up to four digits with a one-digit number, 10, 100 and 1000, with the product up to 10 000 involving daily life situations.	Use illustrated situations and word problems of multiplication and division progressively according to the development of the pupil's ability.

**LEARNING AREA: NUMBERS AND OPERATIONS****TOPIC: 3.0 FRACTIONS, DECIMALS AND PERCENTAGES**

CONTENT STANDARD	LEARNING STANDARD	NOTES
3.1 Fractions	3.1.1 State equivalent fractions of proper fraction involving denominator up to 10.	<ul style="list-style-type: none"> <li>Use daily life situations and diagrams to introduce equivalent fractions. Example: Raju has a pizza. He cut the pizza into two equal parts. Then, he cut the pizza again into four equal parts.  <math display="block">1 \rightarrow \frac{2}{2} \rightarrow \frac{4}{4}</math> <math>\frac{1}{2}</math> is equivalent to 2 pieces of <math>\frac{1}{4}</math>  <math display="block">\frac{1}{2} = \frac{2}{4}</math>  The same pizza is cut again into eight equal parts.  <math>\frac{1}{2}</math> is also equivalent to 4 pieces of <math>\frac{1}{8}</math>  <math display="block">\frac{1}{2} = \frac{4}{8}</math>  So, <math>\frac{1}{2}</math> is equivalent to <math>\frac{2}{4}</math> and <math>\frac{4}{8}</math>  <math display="block">\frac{1}{2} = \frac{2}{4} = \frac{4}{8}</math> </li> <li>Use fraction charts to reinforce the concept of equivalent fractions.</li> <li>Introduce proper fractions. Example:  <math>\frac{1}{2}</math>, <math>\frac{2}{4}</math> and <math>\frac{4}{8}</math> are examples of proper fractions.</li> </ul>

CONTENT STANDARD	LEARNING STANDARD	NOTES
	<p>3.1.2 Convert proper fractions to simplest form, denominators up to 10.</p> <p>3.1.3 Add and subtract two proper fractions.</p>	<ul style="list-style-type: none"> <li>Use equivalent fractions to introduce proper fractions in the simplest form.</li> <li>Use fraction charts and division operations to convert proper fractions to the simplest form. Example: The simplest fraction of <math>\frac{6}{10}</math>.  <math display="block">\frac{6 \div 2}{10 \div 2} = \frac{3}{5}</math> </li> <li>Use the fraction strip and number line to add two proper fractions progressively according to the development of the pupil's ability.</li> <li>Use the same denominator to add and subtract proper fractions, followed by different denominators progressively according to the development of the pupil's ability. Example 1: Add <math>\frac{2}{5}</math> and <math>\frac{1}{5}</math>.  <math display="block">\frac{2}{5} + \frac{1}{5} = \frac{3}{5}</math> </li> </ul> <p>Example 2: Subtract <math>\frac{5}{6}</math> from <math>\frac{1}{3}</math>.  <math display="block">\begin{aligned} \frac{5}{6} - \frac{1}{3} &amp;= \frac{5}{6} - \frac{1 \times 2}{3 \times 2} \\ &amp;= \frac{5}{6} - \frac{2}{6} \\ &amp;= \frac{3 \div 3}{6 \div 3} = \frac{1}{2} \end{aligned}</math> </p>



CONTENT STANDARD	LEARNING STANDARD	NOTES
	<p>3.1.4 Identify improper fractions and mixed numbers involving denominators up to 10.</p> <p>3.1.5 State the fractions of hundredths in decimals.</p>	<p>Use concrete materials and pictorials to show the relationship between improper fractions and mixed numbers in daily life situations.</p> <p>Example: There are two types of pizza. 1 pizza = whole quarter pizza = part</p> <p>1 is a whole number 1 quarter = <math>1\frac{1}{4}</math> = proper fraction <math>\frac{1}{4}</math></p> <p>1 quarter = mixed number <math>\frac{5}{4}</math> = improper fraction</p> <ul style="list-style-type: none"> <li>Use daily life situations to introduce the relationship between hundredths and decimals. Example 1: There are 100 Year 3 pupils. 16 of them wear glasses. 16 out of 100 = 16 percent</li> </ul> <p>= <math>\frac{16}{100}</math> = 0.16</p> <p>= zero point one six</p>

CONTENT STANDARD	LEARNING STANDARD	NOTES
3.2 Decimals	3.2.1 Compare the values of two decimal numbers up to two decimal places.  3.2.2 Add and subtract two decimals involves up to two decimal places, with the sums up to zero point nine nine.	Use diagrams and number lines to show the value of numbers in decimals.  <ul style="list-style-type: none"> <li>• Use diagrams and number lines to add and subtract decimals progressively according to the development of the pupil's ability.</li> <li>• Add and subtract two decimals involving daily life situations.</li> </ul>
3.3 Percentages	3.3.1 Represent percentages in hundred grid and vice versa.  3.3.2 State and write one percent up to one hundred percent.	<ul style="list-style-type: none"> <li>• Introduce percentages and its symbol based on daily life situations.</li> <li>• Use the hundred grid to represent decimals and vice versa.</li> </ul>
3.4 Relationship between fractions, decimals and percentages	3.4.1 State the relationships between fractions, decimals and percentages.	Represent hundredths with decimals, percentages and vice versa.  Example: $\frac{28}{100} = 0.28$ $\frac{28}{100} = 28\%$ $28\% = \frac{28}{100} = 0.28$

**LEARNING AREA: NUMBERS AND OPERATIONS****TOPIC: 4.0 MONEY**

CONTENT STANDARD	LEARNING STANDARD	NOTES
4.1 Add and subtract money	<p>4.1.1 Solve addition and subtraction problems up to three values of money and the summing up to RM10 000.</p> <p>4.1.2 Solve of mixed operation problems of addition and subtraction within RM10 000 involving daily life situations.</p>	<p>Example 1:  <math>RM215 + RM94 = RM309</math>            Example 2:            Dad bought a bike for RM560 and a helmet for RM78.            How much did dad pay?  <math>RM560 + RM78 = RM638</math></p>
4.2 Multiplication and division of money	4.2.1 Solve multiplication and division problems involving the values of money with a one-digit number, 10, 100 and 1000 and the product up to RM10 000.	<p>Use daily life situations to solve number sentences involving multiplication and division of money according to the development of the pupil's ability..</p> <p>Example 1: <math>RM240 \times 5 = RM \dots</math>            Example 2: <math>RM24.20 \times 7 = RM \dots</math>            Example 3: <math>RM13.70 \times 100 = RM \dots</math>            Example 4: <math>RM36.80 \times 1000 = RM \dots</math>            Example 5: <math>RM180 \div 6 = RM \dots</math>            Example 6: <math>RM29.40 \div 10 = RM \dots</math></p>
4.3 Foreign currencies	4.3.1 Recognise currencies of ASEAN countries.	<ul style="list-style-type: none"> <li>• Use real money or pictures to introduce the currencies of ASEAN countries.(activities such as folio preparation or simple project can be implemented)</li> <li>• State that the value of each country's currency is different.</li> </ul>

<b>CONTENT STANDARD</b>	<b>LEARNING STANDARD</b>	<b>NOTES</b>
4.4 Savings and expenditure	4.4.1 Explain needs and wants as a basis for saving and expenditure/spending.	<ul style="list-style-type: none"><li>• Use daily life situations to introduce the meaning of needs and wants, saving and expenditure/spending.</li><li>• Do not need to do calculations to show the difference between saving and expenditure/spending.</li></ul> Examples of needs: Food to provide an energy, house as living place or vehicle to move from one place to another and etc. Examples of wants: Watches, toys, ice cream and etc.

**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 5.0 TIME**

CONTENT STANDARD	LEARNING STANDARD	NOTES
5.1 Time in hours, minutes and seconds.	5.1.1 Read and record time for any activity.	<ul style="list-style-type: none"> <li>• Use class timetables and calendars to read activities. Example 1: Every Monday, 7:30 am to 8:00 am there is an assembly. Example 2: Christmas is celebrated on 25th December every year. Example 3: In 2024, February has 29 days.</li> <li>• Record the time for an activity in a daily life situation and make connections between week and day, year and month. Example: Record activities done by pupils during school holidays.               <ul style="list-style-type: none"> <li>○ The school holidays at the end of the year is 5 weeks which is for 1 month and 1 week.</li> <li>○ 1 week has 7 days.</li> <li>○ 1 month has 30 or 31 days except in February.</li> <li>○ 1 day has 24 hours.</li> <li>○ 1 year has 12 months.</li> </ul> </li> <li>• Use an analogue clock to show the relationship between hours, minutes and seconds.</li> </ul>
	5.1.2 Convert time involving hours and minutes and minutes and seconds.	<ul style="list-style-type: none"> <li>• Use daily life situations to show the conversion of hours to minutes, minutes to seconds and vice versa.</li> <li>• Use an analogue clock to introduce hour, minute and second hands and show the relationship between hours and minutes, minutes and seconds.</li> </ul> <p>Example 1: 1 hour = 60 minutes</p> <p>Example 2: 3 hours = 3 x 60 minutes = 180 minutes</p>

CONTENT STANDARD	LEARNING STANDARD	NOTES
		<p>Example 3: 1 minute = 60 seconds</p> <p>Example 4: 1 hour 20 minutes = ..... minutes</p>
5.2 Addition and subtraction of time	<p>5.2.1 Solve the number sentences involving addition and subtraction up to three units of time involving hours, minutes and seconds.</p> <p>5.2.2 Solve the number sentences of mixed operation of addition and subtraction of units of time involving hours, minutes and seconds.</p>	<ul style="list-style-type: none"> <li>Solve the number sentences involving addition and subtraction of units of time in daily life situations.</li> </ul> <p>Example 1: 5 hours + 1 hour + 2 hours = ..... hours</p> <p>Example 2: 30 minutes + 40 minutes + 5 minutes = ..... minutes</p> <p>Example 3: 15 seconds + 23 seconds + 10 seconds = ..... seconds</p> <p>Example 4: 9 hours 15 minutes + 3 hours 26 minutes = ..... hours ..... minutes</p> <p>Example 5: 23 minutes 14 seconds + 18 minutes 43 seconds = ..... minutes ..... seconds</p> <p>Solve problems involving mixed operation of addition and subtraction of time involving daily life situations.</p>
5.3 Multiplication and division of time	5.3.1 Solve number sentence of multiplication and division of units of time involving hours, minutes and seconds by a one-digit number.	<ul style="list-style-type: none"> <li>Use daily life situations to encourage pupils to form number sentences for multiplication and division of time.</li> <li>Solve the number sentences of multiplication and division of units of time.</li> </ul>

**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 6.0 MEASUREMENTS**

CONTENT STANDARD	LEARNING STANDARD	NOTES
6.1 Length	<p>6.1.1 Convert unit of length involving metre and centimetre.</p> <p>6.1.2 Solve the number sentences involving addition and subtraction up to three length measurements involving metre and centimetre.</p>	<p>Use a 1-metre ruler to show that 1 metre is equal to 100 centimeters. Asking questions verbally about the unit conversion from metres to centimeters and vice versa.</p> <p>Example 1:  <math>2 \text{ m} = 200 \text{ cm}</math>  <math>400 \text{ cm} = 4 \text{ m}</math></p> <p>Example 2:            Convert cm to m and cm  <math>128 \text{ cm} = 100 \text{ cm} + 28 \text{ cm}</math>  <math>= 1 \text{ m} + 28 \text{ cm}</math></p> <p>Example 3:            Convert 9 m 20 cm to cm  <math>9 \text{ m } 20 \text{ cm} = 900 \text{ cm} + 20 \text{ cm}</math>  <math>= 920 \text{ cm}</math></p> <p>Use daily-life situations to solve the number sentences involving addition and subtraction up to three measurements of length.</p> <p>Example 1:  <math>453 \text{ m} + 360 \text{ m} = \dots</math></p> $\begin{array}{r} 453 \text{ m} \\ + 360 \text{ m} \\ \hline 813 \text{ m} \end{array}$ <p>Example 2:</p>

CONTENT STANDARD	LEARNING STANDARD	NOTES
		<p><math>59 \text{ m} + 78 \text{ m} + 143 \text{ m} = \dots \text{ m}</math></p> $\begin{array}{r} 59 \text{ m} \\ + 78 \text{ m} \\ \hline 137 \text{ m} \end{array} \quad \begin{array}{r} + 137 \text{ m} \\ + 143 \text{ m} \\ \hline 280 \text{ m} \end{array}$ <p>Example 3:</p> <p><math>453 \text{ m} - 360 \text{ m} = \dots \text{ m}</math></p> $\begin{array}{r} 453 \text{ m} \\ - 360 \text{ m} \\ \hline 093 \text{ m} \end{array}$ <p>Example 4:</p> <p><math>643 \text{ m} - 59 \text{ m} - 78 \text{ m} = \dots \text{ m}</math></p> $\begin{array}{r} 643 \text{ m} \\ - 59 \text{ m} \\ \hline 584 \text{ m} \end{array} \quad \begin{array}{r} 584 \text{ m} \\ - 78 \text{ m} \\ \hline 506 \text{ m} \end{array}$ <p>Example 5:</p> <p><math>482 \text{ cm} - 1 \text{ m } 33 \text{ cm} - 1 \text{ m } 40 \text{ cm} = \dots \text{ m } \dots \text{ cm}</math></p> $\begin{array}{r} 4 \text{ m } 82 \text{ cm} \\ - 1 \text{ m } 33 \text{ cm} \\ \hline 3 \text{ m } 49 \text{ cm} \\ - 1 \text{ m } 40 \text{ cm} \\ \hline 2 \text{ m } 9 \text{ cm} \end{array}$
	6.1.3 Solve the number sentences of multiplication and division of	Solve the number sentences involving multiplication and division of length progressively.



CONTENT STANDARD	LEARNING STANDARD	NOTES
	length with a one-digit number involving metres and centimetres.	<p>Example 1:  <math>4 \times 95 \text{ cm} = \dots \text{ cm}</math></p> <p>Example 2:  <math>8 \times 3 \text{ m } 20 \text{ cm} = \dots \text{ m } \dots \text{ cm}</math></p> <p>Example 3:  <math>60 \text{ m } 70 \text{ cm} = \dots \text{ cm}</math></p> <p>Example 4:  <math>360 \text{ cm} \div 4 = \dots \text{ cm}</math></p> <p>Example 5:            Divide 2080 cm by 5  <math>2 \text{ 080 cm} \div 4 = \dots \text{ cm}</math></p> <p>Example 6:  <math>13 \text{ m } 50 \text{ cm} \div 3 = \dots \text{ cm}</math></p>
6.2 Mass	6.2.1 Convert unit of mass involving kilogram and gram.	<p>Use concrete materials and pictorials to show that 1 kilogram is equal to 1000 grams. Ask questions verbally about the unit conversion from kilograms to grams and vice versa.</p> <p>Example 1:  <math>3 \text{ kg} = 3000 \text{ g}</math>  <math>5000 \text{ g} = 5 \text{ kg}</math></p> <p>Example 2:            Convert g to kg and g.  <math>1347 \text{ g} = 1000 \text{ g} + 347 \text{ g}</math>  <math>= 1 \text{ kg } 347 \text{ g}</math></p> <p>Example 3:            Express 3 kg 700 g in g  <math>3 \text{ kg } 700 \text{ g} = 3000 \text{ g} + 700 \text{ g}</math>  <math>= 3700 \text{ g}</math></p>

CONTENT STANDARD	LEARNING STANDARD	NOTES
	<p>6.2.2 Solve the number sentences involving addition and subtraction up to three units of masses involving kilogram and gram.</p> <p>6.2.3 Solve the number sentences involving multiplication and division up to three units of masses involving kilogram and gram.</p>	<ul style="list-style-type: none"> <li>• Solve the number sentences involving addition and subtraction up to three units of mass.</li> <li>• Solve problems of mass involving addition and subtraction up to three units of mass in daily life situations.</li>   <li>• Solve the number sentences involving multiplication and division up to three units of mass.</li> <li>• Solve problems of mass involving multiplication and division up to three units of mass in daily life situations.</li> </ul>
6.3 Volume of liquid	<p>6.3.1 Convert units of volume of liquid involving litre and millilitre.</p> <p>6.3.2 Solve the number sentences involving addition and subtraction up to three volumes of liquid involving litre and millilitre.</p> <p>6.3.3 Solve the number sentences involving multiplication and division by a one-digit number involving litre and millilitre.</p>	<ul style="list-style-type: none"> <li>• Use concrete materials and pictorials to show the relationship 1 litre equals 1000 millilitres. Asking questions verbally about unit conversion from litres to millilitres and vice versa.</li> <li>• Use a beaker, measuring cylinder, measuring cup or water bottle to indicate the correct quantity.</li> <li>• Use simulations or hands-on activities to demonstrate unit conversion or basic operations.</li>   <li>• Solve the number sentences involving addition and subtraction up to three volumes of liquid involving litre and millilitre progressively.</li> <li>• Solve problems involving addition and subtraction involving litre and millilitre in daily life situations.</li>   <li>• Solve the number sentences involving multiplication and division up to three volumes of liquid involving litre and millilitre progressively.</li> <li>• Solve problems involving multiplication and division involving litre and millilitre in daily life situations.</li> </ul>

**LEARNING AREA: MEASUREMENT AND GEOMETRY****TOPIC: 7.0 SPACE**

<b>CONTENT STANDARD</b>	<b>LEARNING STANDARD</b>	<b>NOTES</b>
7.1 Prisms and non-prism	<p>7.1.1 Recognise square prisms, rectangular prisms and triangular prisms.</p> <p>7.1.2 State the characteristics of square prisms, rectangular prisms and triangular prisms according to surfaces, bases, vertices and edges.</p> <p>7.1.3 Compare prisms and non-prisms based on surfaces, bases, vertices and edges.</p>	<p>Use concrete materials to introduce square prisms, rectangular prisms and triangular prisms. Then, show the relationship between the cube and the cuboid with the prism. Example: A cube is a square prism. A cuboid is a rectangular prism.</p> <ul style="list-style-type: none"> <li>• Use concrete materials and pictorials to state verbally or write the number of surfaces, vertices and edges. Example: A rectangular prism has 6 flat surfaces, 8 vertices 12 edges and 2 bases.</li> <li>• Explain the characteristics of a prism: <ul style="list-style-type: none"> <li>- Has 5 or more flat surfaces.</li> <li>- Has 2 opposite surfaces of the same shape and size each called the base.</li> <li>- Has no curved surfaces.</li> </ul> </li> </ul> <p>Use concrete materials and pictorials to make comparisons between prisms and non-prisms, consisting of spheres, cones, pyramids and cylinders.</p>
7.2 Regular polygon shape	7.2.1 Recognise the regular polygon such as pentagon, hexagon, heptagon and octagon.	<p>Use concrete materials and pictorials to recognize the shape of a regular polygon based on its characteristics. Example: The pentagon has 5 straight sides.</p>

CONTENT STANDARD	LEARNING STANDARD	NOTES
	7.2.2 Create patterns based on regular polygons.	Use daily life situations in hands-on activities to explore the patterns that can be produced using regular polygons. Example: Situation in the playground, has butterflies, trees and the sun.
7.3 Axis of symmetry	7.3.1 Recognise and draw the axis of symmetry.	<ul style="list-style-type: none"> <li>• Use hands-on activities to introduce the axis of symmetry.</li> <li>• Use regular polygons to introduce an axis of symmetry.</li> <li>• Draw and state the number of axes of symmetry.</li> <li>• Making a connection between the number of axes of symmetry and the number of straight sides of a regular polygon.</li> </ul> Example: Pentagon has 5 axes of symmetry because there are 5 straight sides that can divide the pentagon to five equal halves.

**LEARNING AREA: RELATIONSHIP AND ALGEBRA****TOPIC:8.0 COORDINATES**

<b>CONTENT STANDARD</b>	<b>LEARNING STANDARD</b>	<b>NOTES</b>
8.1 Coordinates in the first quadrant	<p>8.1.1 Identify the position of an object based on the reference point using the relevant vocabulary.</p> <p>8.1.2 Identify the object based on its position at the horizontal and vertical axes.</p> <p>8.1.3 Determine the position of an object at the horizontal and vertical axes.</p>	<p>Use classroom situations and compass to identify the position of objects based on the reference points. Example: To the right, to the top, to the east, and to the north.</p> <p>Introduce the horizontal and vertical axis, followed by simulating daily life situations to identify objects. Example: Move three steps to the right. Then, move 5 steps to the north. Finally, state the object in that position.</p> <p>Use pictures or simulations to find the position of the object on the horizontal and vertical axis.</p>

**LEARNING AREA: STATISTICS AND PROBABILITY****TOPIC: 9.0 DATA MANAGEMENT**

<b>CONTENT STANDARD</b>	<b>LEARNING STANDARD</b>	<b>NOTES</b>
9.1 Collect, classify and sort data	9.1.1 Collect, classify and sort data based on daily life situations.	Use daily-life situations to collect, classify and sort data. Example: Favourite color, favourite food, favourite animal and etc.
9.2 Pie chart	9.2.1 Reading and obtain information from pie charts. 9.2.2 Relate between pictograph, bar chart and pie chart to represent any information.	Read a pie chart that represents daily life situations and state the information shown. Use similar examples to represent data in pictographs, bar charts and pie charts to show relationships.



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