

Dawood Public School
Course Outline 2017-2018
Class III
Math

Books:

Lu jitan, New Syllabus Primary Mathematics 3 along with practice books 3a and 3b, Singapore; Oxford University Press.

Monthly Syllabus for the Year 2017-2018

Syllabus Content:

Months	Topic	Time Period
August	<ul style="list-style-type: none"> • Numbers to 10,000 • Addition and Subtraction • Table of 2, 3 and 4 • Activity calendar 	2 weeks 2 weeks
September	<ul style="list-style-type: none"> • Word Problems(+ and -) • Multiplication • Division (long) • Table of 5,6 and 7 • Activity calendar 	2 week 1 week 1 week
October	<ul style="list-style-type: none"> • Divisibility Rules • Word Problems (x and \div) • Length (add, sub and conversion) • Angles(definition and recognition) • Parallel and Perpendicular lines • Table of 8 and 9 • Activity Calendar 	2 days 2 weeks 1 week 2 days 1 days
November	<ul style="list-style-type: none"> • Money (addition, subtraction and word problems) • Revision for Mid-Term Exams • Activity Calendar 	1 week 3 weeks
December	<ul style="list-style-type: none"> • Activity Calendar • Mid-Term Exams 	
January	<ul style="list-style-type: none"> • Fractions (proper and improper fractions, mix number simplification, add and sub with like fractions) • Table of 10 and 11 • Activity Calendar 	4 weeks
February	<ul style="list-style-type: none"> • Mass – Conversion • Area and Perimeter • Table of 12 • Activity Calendar 	2 weeks 2 weeks
March	<ul style="list-style-type: none"> • Time • Bar Graph • Table of 13 • Activity Calendar 	3 weeks 1 week
April	<ul style="list-style-type: none"> • Revision for final exams • Activity Calendar 	
May	<ul style="list-style-type: none"> • FINAL EXAMS 	

August

TOPIC	Numbers to 10 000		
Sub Topic	LEARNING OUTCOMES	WORKBOOK/BOOK PAGES	ACTIVITY
<ul style="list-style-type: none"> Place value Writing in words and figures Standard and expanded form Comparing and ordering Number patterns Roman numerals 	<p>Students should be able to:</p> <ul style="list-style-type: none"> *recognize large numbers *read the numbers *differentiate between digit and a number *write in words or in standard form. *recognize each digit's place value. *tell what each digit stands for *write the number in expanded form *how many thousands, hundreds, tens and ones in a number *what number comes before and after *make smaller and a bigger number from given digits *compare numbers *write numbers in ascending and descending order *complete the number pattern. *sort out odd and even numbers *Write roman numerals from I to XX *complete the pattern of roman numerals *match the number to roman numerals 	<p>*Pg No. 1 – 23 W/B 3A</p>	<p>By using</p> <ul style="list-style-type: none"> flash cards paper glass
<ul style="list-style-type: none"> Addition and Subtraction 	<ul style="list-style-type: none"> *Add two or more numbers involving carry to the next place value. * Borrow from the partner number when needed. *Show the correct borrowing when needed and subtract 	<p>Pg No.26, 32, 37, 42 , 50, 52 W/B 3A</p> <p>*Pg No. 45 book 3</p> <p>*Work will be done in the copy using 4 digits</p>	
<ul style="list-style-type: none"> Tables 2, 3, 4 	<ul style="list-style-type: none"> *Write and learn the table. *Write the answer of table asked in dodging form. *Match the answer to the question. *Fill in the blanks * Mental Math 		

Attainable Targets:

- Read and write numbers to 10, 000.
- Understand what each digit represents in a four-digit numbers.
- Compare three-digit numbers, use < and > signs, and find a number in between.
- Order four-digit numbers.
- Find half of even numbers.

- Convert Arabic numbers to Roman numbers.
- Number pattern
- Expanded form
- Place value of each digit in each number
- Add and subtract the horizontally given numbers vertically.
- Solve the given number wheel
- Find the sum and difference of
- Add down and across.
- Solve the given puzzle

Sample Questions:

NUMBERS TO 10,000:

Q. Write in words.

A. 2345 =

B. 7090 =

C. 5640 =

Q. Complete the pattern.

A. _____, 2030, 2040

B. 1100, _____, 3100, 4100

C. III, _____, V, _____, VII

Q. Fill in this table

Standard form	Expanded form	In words
2001		
	4000+400+40+9	
		Six hundred and six

Q) Look at the table below and answer these questions.

191	400	4000
113	78	441

1. The smallest odd number in the table is _____.
2. The sum of all the odd numbers in the given table is _____.
3. The smallest three digit number is _____.
4. Colour all the even numbers in the grid red.
5. The number having 4 in tens place is _____.
6. The number with all 4 even digits is _____.

There's some information missing from this place value table. See if you can fill in the blanks. first two rows have been done for you.

Number written with digits	Thousands	Hundreds	Tens	Units	Number written in words
	Th	H	T	U	
709	7	0	9		Seven hundred and nine
1,624	1	6	2	4	One thousand six hundred and twenty four
					One hundred and twenty three
					Five hundred and seven
569		5	6	9	
					Seven thousand
	4	5	0	0	
		1	1	9	
					Six hundred and forty
4,004					
884					
					Nine thousand eight hundred and fifteen

ADDITION and SUBTRACTION:

- Q. Find the difference between 2098 and 340
 Q. Find the sum of 30, 450 and 1098.

Resource List

Books:

- Dr Fong Ho Kheong, Chelvi Ramakrishnan, Gan Kee Soon(2nd edition), My Pals are her Book 1a and 1b, Singapore; Marshall Cavendish Education
- Lawler, Dr Graham (4th Edition), Understanding Maths Book 1,2
- Winnie Tan and S. T. Rajah, Progressive Mathematics Book 1,2, Oxford University press;
- P.N. Singh, A. K. Roy, and S. Dudeja (Second edition), New Count Down Mathematics Book 1,2, Oxford University Press;
- SPMG Mathematics Book 1,2

Websites:

- www.teachingpacks.co.uk/the-mental-maths-pack/
- www.nrich.com
- www.softschools.com/math/worksheets

September:

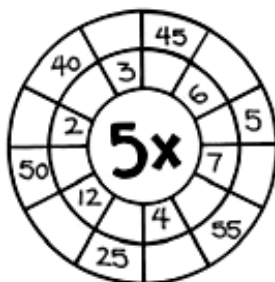
TOPIC	LEARNING OUTCOMES	WORKBOOK/BOOK PAGES	ACTIVITY
<ul style="list-style-type: none"> Multiplication 	Students will be able to: *Perform multiplication with 2 digit multiplier (double multiplication) * label the terms multiplicand, multiplier and product	Pages in workbook 3B 105,106,107,108,109	Colour pencils will be used to explain multiplication and division
<ul style="list-style-type: none"> Division (long) 	*label quotient, divisor, dividend and remainder * perform appropriate operation of either add or subtract	Pages in workbook 3B 121,122,123,125,128and 129	Introducing cartoon characters activity for word problems
<ul style="list-style-type: none"> Word problems (+ and -) 	*learn the tables *use the table according to the requirement.		
<ul style="list-style-type: none"> Table of 5,6 and 7 			

Sample Questions:

MULTIPLICATION and Division:

Q. Find the product and label the multiplicand, multiplier and product.

Q. Complete this 5 times table wheel.



WORD PROBLEMS:

Q. There are 3007 books in a library. 1500 are of English and rests are of Geography. How many Geography books are there in the library?

Q. Sana bought a sofa set and a dining table set. The sofa set cost Rs 3255 and the dining table set cost Rs 1203 less. How much did Sana spend altogether?

Q. There are 60 oranges packed in a box. How many oranges will be there in 18 such boxes?

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- SPMG Mathematics Book 1,2
-

Websites:

- www.teachingpacks.co.uk/the-mental-maths-pack/
- www.nrich.com
- www.softschools.com/math/worksheets

October:

TOPIC	LEARNING OUTCOMES	WORKBOOK/BOOK PAGES	ACTIVITY
Divisibility Rules 2, 5, 10	Students will be able to: *know the divisibility rules for 2, 5 and 10 *find out if the given number is divisible by 2, 5 or 10	----- Work will be done in copy+ page 115,116,131,132 and 133 in workbook 3A	Introducing cartoon characters activity for word problems
Word Problems: multiply and divide	*Perform the appropriate operation of either division or multiplication		
Length: Conversion, add, Subtract.	*measure in meters, centimeters, kilometers. *choose the suitable unit for an object *know the relationship between km, m and cm	57,64,65,66,68, 69,70,71, of W/B 3A	classroom activity will be conducted to measure different objects
• Angles	*Recognize/identify types of angles	Work in copy will be done.	Finding the angles in the Objects Show 3 kinds of angles by using their arms.
• Parallel & Perpendicular lines	* Differentiate between parallel and perpendicular lines *identify and draw perpendicular and parallel lines	Page number 121 till 129	Students will identify parallel and perpendicular lines/sides on different objects
• Tables 8 and 9	* Know tables in dotting form		

Attainable Targets:

- Label with divisor, dividend, quotient and remainder.
- Understand that division can leave a remainder (initially as 'some left over').
- Write suitable units in front of given objects
- Circle the most reasonable units of each object.
- Convert into cm, m, km
- Add or subtract the given measurements.
- Know the relationship between kilometers and meters, meters and centimeters.
- Finding the distance in kilometers and meters if they have been given map of different places with their distance.

Sample Questions:

DIVISION + DIVISIBILITY RULES:

Q. Find the quotient and remainder. $135 \div 2$

Q. Put tick or cross.

NUMBER	IS DIVISIBLE BY 2?	IS DIVISIBLE BY 5?	IS DIVISIBLE BY 10?
230			
465			

WORD PROBLEMS:

Q. Zara wants to use 42 beads in necklaces. She wants to prepare 12 such necklaces, how many beads will she need?

Q. There are 978 apples in 2 boxes. How many apples are there in each box?

Q. Sana bought 1202 pairs of shoes. She wants to arrange them in a shelf of 3 racks. How many pairs of shoes will she set in each rack?

LENGTH:

Q. Choose the appropriate unit for each object.

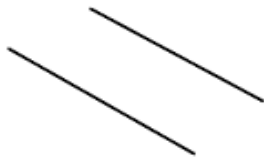
A. Carpet	2m	1cm	2km
B. building	5m	5km	5cm

Q. Convert 2013m into km and m.

Q. Convert 3m 40cm into m

PARALLEL AND PERPENDICULAR LINES:

Q. Identify the lines and circle the correct option.



- A. Perpendicular lines
- B. Parallel lines



- A. Perpendicular lines
- B. Parallel lines

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- www.teachingpacks.co.uk/the-mental-maths-pack/
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- www.softschools.com/math/worksheets

November:

TOPIC	Money		
SUB TOPICS	LEARNING OUTCOMES	WORKBOOK/BOOK PAGES	ACTIVITY
<ul style="list-style-type: none">• Add• Sub• Multiply• Divide• Word problems	Students will be able to: *Add and subtract rupees and paisas * align the sum properly * make a bill and find out change * solve word problems	Page number 139,142,146,148,154 and 155	Shopping and making bills.

Attainable Targets:

- Add or subtract the given price.
- Use addition and subtraction facts with a total of 100 or 50 to find change.
- Solve word problems related to money if any story or daily life example is shared.

Sample Questions:

MONEY:

Q. Add Rs. 500 and Rs. 12.15

Q. Subtract Rs. 27.30 from Rs. 100

Q. Sana bought 1kg apples of Rs. 340.45 and 1 watermelon of Rs. 150. She gave Rs. 500.00 to the cashier. How much change will she get back?

December:

MID TERM EXAM

1) $\frac{2}{16}$

2) $\frac{10}{15}$

3) $\frac{6}{18}$

Q) Solve these fractions.

1) $\frac{2}{8} + \frac{1}{8} + \frac{4}{8}$

2) $\frac{6}{10} - \frac{2}{10}$

Q) Arrange these fractions in ascending order.

$\frac{3}{4}, \frac{1}{3}, \frac{1}{2}$

Q) Arrange these fractions in descending order

$\frac{2}{6}, \frac{7}{12}, \frac{3}{8}$

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February:

Topic	Learning outcomes	Book pages/ Work book pages	Activity
<ul style="list-style-type: none">• Mass conversion• Area and Perimeter• Table of 12	<ul style="list-style-type: none">• Student should be able to:• Convert masses and lengths from one unit to another• Find the mass of missing object• Solve word problems related to mass• Define Area and perimeter• Find area and perimeter of the given shape with the help of grid	<p>Pg. No. 89,90,91,94,98 and 99 Book 3A</p> <p>Pg. No. 130-147 W/B 3B</p>	<p>Students will bring empty wrappers on which masses of ingredients will be written.</p> <p>Students will measure the perimeter of objects in classroom by measuring tape.</p>

Attainable targets:

- Convert Kg into grams and vice versa.
- Students will understand that area is measured in square units.
- Find the area of square and rectangular objects.

Sample questions

Q) Convert grams into kilo grams.

- a) 1092 grams b) 2453 grams

Q) Convert kilograms into grams.

- a) 1 kg 100 grams b) 4 kg 400 grams

Resource List

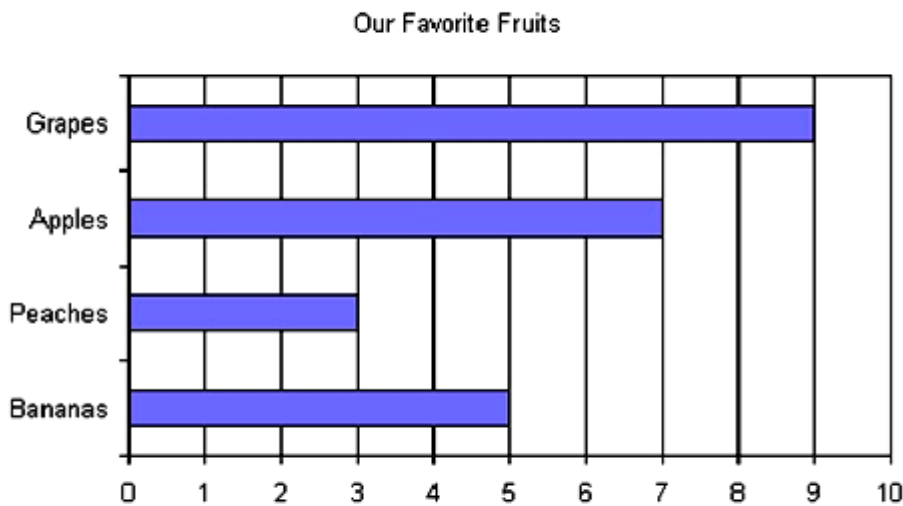
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BAR GRAPH:



Q. Read the bar graph carefully and answer the following questions.

A. Which fruit is liked most?

B. How many students like bananas?

April:

Revision of Final Exams

May:

FINAL EXAMS

Assessment and Homework:

Students will be assessed by taking test of each and every chapter. Home Work shall be given on daily basis.

Glossary/Keywords:

Pattern

Odd and Even number

Place value

Thousands, Hundreds, tens and ones Greater/lesser/less than/more than Ascending order

Descending order Roman numerals Number Sentence Carrying Borrowing

Sum

Story sums/ Word problems Altogether, total, in all, not, left, share Multiplicand

Multiplier Product Divisibility

mm, cm, m, km ounce, g, kg

Rupees, Paisas, Change

Bar graph

Improper, proper fraction and mixed no. Whole, half, quarter

Minute and second hand

O'clock, Half past, Quarter past, Quarter to

Digital time, a.m, p.m

Duration

Parallel and perpendicular lines

Angles (right, acute and obtuse angle)

Area and Perimeter

Mathematical Symbols:

+	Addition
-	Subtraction
×	Multiplication
÷	Division
<	Less than
>	Greater than
°	Degree
%	Percentage
$\frac{\square}{\square}$	Fraction
.	Decimal
=	Equal to

Keywords:

- **ABACUS** = An Abacus is a counting tool used in mathematics for early learners. The Abacus helps provide a concrete understanding of counting, adding, subtracting and dividing. The Abacus contains beads or disks that can be moved up or down or from side to side.
- **ADDEND** = A number which is involved in addition. Numbers being added are considered to be the addends. E.g. $3 + 2 = 4$ The three and the two are the addends.
- **Composite Number** - A composite number has at least one other factor aside from its own. A composite number cannot be a prime number.
- **Denominator** - The denominator is the bottom number of a fraction. (Numerator is the top number) The Denominator is the total number of parts.
- **Degree** - The unit of an angle, angles are measured in degrees shown by the degree symbol: °.
- **Difference** - The difference is what is found when one number is subtracted from another. Finding the difference in a number requires the use of subtraction.
- **Digit** - Digits are making reference to numerals. 176 is a 3 digit number.
- **Dividend** - The number that is being divided. The number found inside the bracket.
- **Divisor** - The number that is doing the dividing. The number found outside of the division bracket.
- **Even Number** - A number that can be divided or is divisible by 2.
- **Evaluate** - To calculate the numerical value.
- **Fraction** - A way of writing numbers that are not whole numbers. The fraction is written like $\frac{1}{2}$.
- **Geometry** - The study of lines, angles, shapes and their properties. Geometry is concerned with physical shapes and the dimensions of the objects.
- **Improper Fraction** - A fraction whereby the denominator is equal to or greater than the numerator.
- **Kilometer** - A unit of measure that equals 1000 meters.
- **Like Fractions** - Fractions having the same denominator. (Numerator is the top, denominator is the bottom)
- **Line** - A straight infinite path joining an infinite number of points. The path can be infinite in both directions.
- **Line Segment** - A straight path that has a beginning and an end - endpoints.
- **Mixed Numbers** - Mixed numbers refer to whole numbers with fractions or decimals. Example $3\frac{1}{2}$ or 3.5.
- **Multiple** - The multiple of a number is the product of the number and any other whole number. (2, 4, 6, 8 are multiples of 2)
- **Multiplication** - Often referred to as 'fast adding'. Multiplication is the repeated addition of the same number 4×3 is the same as saying $3+3+3+3$.
- **Numerator** - The top number in a fraction. In $\frac{1}{2}$, 1 is the numerator and 2 is the denominator. The numerator is the portion of the denominator.

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- **Odd Number** - A whole number that is not divisible by 2.
 - **Operation** - Refers to addition, subtraction, multiplication or division which is called the four operations in mathematics or arithmetic.
 - **Percent** - A ratio or fraction in which the second term on denominator is always 100.
 - **Perimeter** - The total distance around the outside of a polygon. The total distance around is obtained by adding together the units of measure from each side.
 - **Perpendicular** - When two lines or line segments intersect and form right angles.
 - **Prime Numbers** - Prime numbers are integers that are greater than 1 and are only divisible by themselves and 1.
 - **Product** - The sum obtained when any two or more numbers are multiplied together.
 - **Proper Fraction** - A fraction where the denominator is greater than the numerator.
 - **Protractor** - A semi-circle device used for measuring angles. The edge is subdivided into degrees.
 - **Quotient** - The solution to a division problem.
 - **Ray** - A straight line with one endpoint. The line extends infinitely.
 - **Rectangle** - A parallelogram which has four right angles.
 - **Remainder** - The number that is left over when the number cannot be divided evenly into the number.
 - **Subtraction** - The operation of finding the difference between two numbers or quantities. A process of 'taking away'.
 - **Triangle** - Three sided polygon.
 - **Vertex** - A point of intersection where two (or more) rays meet, often called the corner. Wherever sides or edges meet on polygons or shapes. The point of a cone, the corners of cubes or squares.
 - **Whole Number** - A whole number doesn't contain a fraction. A whole number is a positive integer which has 1 or more units and can be positive or negative.