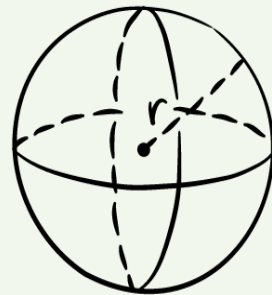
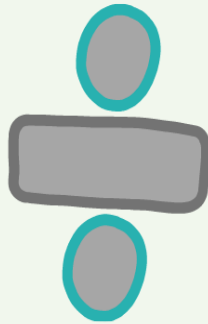
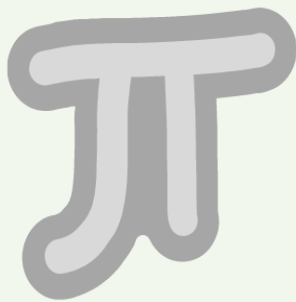


# MathStep 5

(Revised/ SNC Version)



$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$V = \frac{4}{3} \pi r^3$$

## Lesson Planner

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# Unit 1: Whole Numbers and Operations

## Lesson 1: Number up to 1 Million

**Objectives:** Read and write numbers up to 1,000,000 in Numerals and words and write its expanded form.

**Teaching Resources:** - Book pg. 2, place Value chart

### Introduction (5min)

Write 5 digits and 6 digits numbers on teacher's board and ask children to read the numbers. Discuss the place value of each digit, observe the prior knowledge of children how they can read the numbers.

### Teaching Procedure (15min)

Ask children to observe book pg. 2 and draw/paste Place value chart on teacher's board ,write the number in the Place value chart and discuss each digit place value ,recap place value up to 6 digits with children .tell them when we add one more to 999,999 we can get 1,000,000(1 million) 7 digit number.

Tell them how to write the expanded form by putting the number of zeroes after each digit by counting the after digits.

Million	Hundred thousand	Ten thousand	Thousand	Hundred	Ten	Ones
5	1	2	3	4	5	6

Numerals: 5,123,456

Words: Five million one hundred twenty three thousand four hundred and fifty six

Expanded form:  $5,000,000 + 1,00,000 + 20,000 + 3,000 + 400 + 50 + 6$

Discuss the real life example, have you ever visit bank, do you know how to write the values in cheque or have you ever seen someone how to write the cheque book to get money from bank. How to write or read 7 digit number.

### Task(15min)

Exercise 1 (Q1) : Children should read the given numbers and write the numbers in words .the first one is done for them

Exercise 1(Q2) : Children should read the numbers in words and then write in numerals(numbers)

Exercise 1(Q3) :Children should write the given numbers in expanded form.

### H.W: Explanation (2min)

Children should observe the H.w questions 4 and 5 and teacher will explain them one sample questions, ask them to do question 4 and 5.

## Lesson 2: Addition and Subtraction up to 6 digits numbers

**Objectives:** : Add and Subtract up to 6 digits numbers

**Teaching Resources:** - Book pg. 5, number cards, and teacher's board

### Introduction (5min)

Write 4 digits and 5 digits numbers on teacher's board and ask children to add and subtract step by step ones, tens, hundreds, thousands, ten thousands values. Recall the prior knowledge of adding and Subtracting up to 5 digit number by carrying and borrowing values through standard Method

### Teaching Procedure (18min)

Use Standard method of Addition and Subtraction, ask children to add and subtract from ones value

Addition						Subtraction					
362574 + 125437 =488011						898374- 421536=476,838					
H.th	T.th	Th	H	T	O	H.th	T.th	Th	H	T	O
		①	①	①		8	9	<del>8</del> 7	13	<del>7</del> 6	14
3	6	2	5	7	4	4	2	1	5	3	6
1	2	5	4	3	7	4	7	6	8	3	8
4	8	8	0	1	1	Borrowing the values from the previous values					
Carrying the values to next values											

Tell them the key words more than (+) means Add and less than (-) means Subtract and find the number. Tell them the inverse method (opposite method) to find the missing number like

Q: What number should we add in 121314 to get 345678?

**Solution:** We will subtract both values  $345678-121314 = 22, 4364$  is the number which we will add to get 345678

Discuss the real life example, by adding and subtracting items from the items list. Discuss the bookshop situation, a shopkeeper have 296381 books he sold 173,657.How many books left?

$296,351-173657=122,723$  books left

### Task(15min)

Exercise 2 (Q1) : Children should add 6 digits numbers (a-e) parts .the first one is done for them

Exercise 2(Q2) : Children should subtract 6 digits numbers (a-e) parts .the first one is done for them.

Exercise 2(Q3): Children should find the numbers by adding, subtracting and using inverse method (I—VI) parts

### H.W: Explanation (2min)

Children should observe the H.w and do remaining Q1, Q2, Q3 parts in H.w

### Lesson 3: Multiplying by 10,100 and 1000

**Objectives:** Multiply a number up to 5 digit by 10,100 and 1000

**Teaching Resources:** - Book pg. 10, Dodging table charts, and teacher's board

#### Introduction (5min)

Write any 3 or 4 digit number on teacher's board and discuss with children that when they multiply any number with tens one zero will increase its right, when they multiply any number with hundreds two zeroes will increase its right, and when they multiply any number with thousand three zeroes will increase its right.

Read the number before multiplying with 10, 100, and 1000 and after increases the zeroes also read again to show the children the values increases,

Like  $2468 \times 10 = 24680$

$6352 \times 100 = 635200$

$4851 \times 1000 = 4851000$

#### Teaching Procedure (15min)

Ask children to tell the answers

1)  $375 \times 100 = \dots\dots\dots$  2)  $\dots\dots\dots \times 10 = 43250$  3)  $46216 \times 10 = \dots\dots\dots$  4)  $\dots\dots\dots \times 100 = 6843500$

Tell them the method to increase 1 zero multiply by 10 , 2 zeroes multiply by 100 and 3 zeroes multiply by 1000 to its right.

Discuss the real life example, how they increase their amount by multiplying numbers by 10, 100, 1000

$48Rs \times 10 = 480Rs$

$357Rs \times 100 = 35700Rs$

$625 \times 1000 = 625000Rs$

#### Task (20min)

Exercise 3(Q1) : Children should find the answers by multiplying the numbers 10,100,1000 then write the answer in the blanks.(the first one is done for them) (I till v)

Exercise 3(Q2) : Children should multiplying the number by 10 and put one zero to its right .the first one is done for them.

Exercise 3(Q3): Children should multiplying the number by 100 and put two zero to its right .the first one is done for them

#### H.W: Explanation (2min)

Children should observe the H.w and do Q4 in H.w

## Lesson 4: Multiplying 5 digits number by 2 digit and 3 digit number

**Objectives:** Multiplying numbers up to 5 digit by a number up to 3 digit number

**Teaching Resources:** - Book pg. 10, teacher's board and mental math questions.

### Introduction (5min)

Ask children what is  $2 \times 5$  is 10

4 times 6 is 24

If we multiply 3 with 12 = 36

What is the product (answer) of 7 by 8 = 56?

Double of 6 means  $(6 \times 2)$  is 12

Observe the prior knowledge of children and make them ready to multiply 2 digit number with 2 digit like  $12 \times 15 = 180$

### Teaching Procedure (15min)

Ask children to observe book page 10 then Write 5 digit number on teacher's board and multiply with 2 digit number step by step. Inform children to multiply the ones with ones then tens, hundreds, thousands then ten thousand .when they multiply the ones with all 5 digits in next product place they will write zero and start tens digit multiplication with again the same 5 digits after that they will add to find the final product by using standard method of multiplication.

The same steps they will follow when children will multiply 5 digits with three digits after getting 2 answers (products) they will write 2 zeroes and multiply the hundreds with the given 5 digits after that they will add to find the final product.

Sample question (Multiply 21038 By 123) given on book pg. 10

Discuss the real life example that how long multiplication helps them in calculations.

Task 18 min

Exercise 3(Q8) : Children should multiply the 5 digits by 3 digits by using standard method of multiplication then solve the given sums.(the first one is done for them)

### H.W: Explanation (2min)

Children should complete the remaining sums of Q8 in H.w

## Lesson 5: Dividing by 10,100 and 1000

**Objectives:** Divide a number up to 5 digit by 10,100 and 1000

**Teaching Resources:** - Book pg. 10, Quick division chart, and teacher's board

### Introduction (5min)

Write any 3 or 4 digit number on teacher's board and discuss with children that when they divide any number with tens one zero will remove from the right, when they divide any number with hundreds two zeroes will remove from the right, and when they divide any number with thousand three zeroes will remove from the right.

Read the number before divide by 10, 100, and 1000 and after removing the zeroes also read again to show the children the values decreases.

Like  $24680 \div 10 = 2468$

$635200 \div 100 = 6352$

$4851000 \div 1000 = 4851$

### Teaching Procedure (15min)

Ask children to tell the answers

**1)  $67500 \div 100 = 675$  2)  $432500 \div 10 = 43250$  3)  $7462100 \div 100 = 74621$  4)  $683500 \div 100 = 6835$**

Tell them the method to decrease 1 zero divide by 10 , 2 zeroes divide by 100 and 3 zeroes divide by 1000 from the right.

Discuss the real life example, how they decrease their amount by dividing numbers by 10, 100, 1000

$780Rs \div 10 = 78Rs$

$95700Rs \div 100 = 957Rs$

$725000 \div 1000 = 725Rs$

### Task (20min)

Exercise 3(Q1) : Children should find the answers by dividing the numbers 10,100,1000 then write the answer in the blanks.(the first one is done for them) (v till x)

Exercise 3(Q5): Children should dividing the number by 10 and remove one zero from the right .the first one is done for them.

Exercise 3(Q6): Children should dividing the number by 100 and remove two zero from the right .the first one is done for them

### H.W: Explanation (2min)

Children should observe the H.w and do Q7 in H.w

## Lesson 6: Dividing 5 digit number by 2 digit number

**Objectives:** Dividing numbers up to 5 digit by a number up to 2 digit number

**Teaching Resources:** - Book pg. 11, teacher's board and mental math questions.

### Introduction (5min)

Ask children what is  $35 \div 5$  is 7

56 divided by 6 is 7

If we divide 81 with 9 = 9

What is the quotient (answer) of 72 by 2 =36?

Half of 16 means ( $16 \div 2$ ) is 8

Observe the prior knowledge of children and make them ready to divide 3 digit number with 2 digit  
924 divided by 44 is 21 .it's completely divided not get any remainder.

### Teaching Procedure (15min)

Ask children to observe book page 11 then write 5 digit number on teacher's board and divide with 2 digit number step by step. Inform children to divide the 2 digits with starting 2 digits then subtract first to find the first dividend answer after write the remaining value at second dividend place and check the number and divide in the same way by using long division method

The same steps they will follow when children will divide the last dividend number .if they get remainder then they will mention the quotient, remainder both in answer at the end.

Sample question (divide 23412 by 12) given on book pg. 11

Discuss the real life example that how long division helps them in calculations.

### Task 18 min

Exercise 3(Q9) : Children should divide the 5 digits by 2 digits by using long method of division then solve the given sums.(the first one is done for them)

### H.W: Explanation (2min)

Children should complete the remaining sums of Q9 in H.w

## Lesson 7: Real life Problems

**Objectives:** Solve real life situations involving operation of Addition, Subtraction, Multiplication and Division

**Teaching Resources:** - Book pg. 14, teacher's board. Word problem keywords chart

### Introduction (5min)

Ask children to read the sample word problem question from teacher's board, then ask children what we will do?

### Teaching Procedure (15min)

Ask children to read the real life problem from book page 14 then discuss the keywords to identify the solution

Word Problem Keywords			
<b>Addition</b> sum plus total of together added to combined more than older than farther than consecutive greater than increased by	<b>Subtraction</b> left less minus less than difference fewer than smaller than younger than decreased by diminished by subtracted from	<b>Multiplication</b> of twice triple each times product of multiplied by	<b>Division</b> in per split out of ratio of average percent quotient of equal pieces

Tell them the steps to solve the real life problem.

1. Read the problems carefully
2. Understand the facts (numbers, data)
3. Draw a picture if u need
4. Write a number sentence (which operation)
5. Solve the problem show your calculations
6. check your answer and write answer statement.

Ask from children then discuss to solve the real life problem.

### Task 18 min

Exercise 4(Q1 TILL 8) : Children should solve the real life problem after identify the keywords and operation.

### H.W: Explanation (2min)

Children should complete the remaining real life problems of Ex 4 Q9 TILL 12 in H.w



## Lesson 7: Number Pattern

**Objectives:** Identify and apply a pattern rule to determine missing elements for a given pattern.

Identify the pattern rule of a given increasing and decreasing pattern and extended the pattern for next three terms.

Describe the pattern found in the given table or chart

**Teaching Resources:** - Book pg. 15, teacher's board, Ascending and descending number pattern rule chart.

### Introduction (5min)

Write number sequence on board like 0, 3, 6, 9, ----, ----- and ask children observe the sequence and how can we get 3 after 0. Tell them we add 3 in previous number 0 to get 3 they add 3 in the last digit 9 to get 12 find the next missing number in the sequence.

### Teaching Procedure (15min)

Ask children to observe the number sequence given on book page 18 then discuss the ascending and descending rule of number sequencing on teacher's board. They will extend the sequence by following the same rule of ascending to add and multiply and for descending minus and divide.

Ask student to observe the number pattern rule in the given table on book pg. 17

11	12	19	22	100	101
16	17	24	27	105	106

Rule: Add 5 in previous term (value) like  $11+5=16$  and  $12+5=17$  also write  $n+5$

Discuss the real life example that how number pattern help us to complete counting and we can also use the pictorial pattern to complete the designs.

### Task (20 min)

Exercise 5(Q1): Children should find the missing number in the number sequence. (The first one is done for them)

Exercise 5(Q2): Children should extend the given sequence by apply the ascending and descending rule. .the first one is done for them.

Exercise 5(Q3): Children should find the rule and pattern in the given table .the first one is done for them

### H.W: Explanation (2min)

Children should do review Qs pg. 20 Q10 in H.w

## **Lesson 8 : Review Exercise**

**Objectives:** Revise the concepts given about the whole number and operations.

**Teaching Resources:** - Book pg. 19,20, teacher's board

### **Introduction (5min)**

Write questions on board and ask children to revise the taught concepts and discuss the answers in class.

### **Teaching Procedure (15min)**

Design a short test from the review exercises and ask students to solve independently .teacher will observe their working during class.

Task (20 min)

Children will complete the given review Exercise question test.

Teacher will check their test in copies and give them feedback and identify their area of improvement.

## **Unit 2: Highest Common Factor (HCF) & Least Common Multiple (LCM)**

## **Unit 3: Fractions**

# Unit 4: Decimals Numbers and Percentages

## Lesson 1: Comparison of Decimal Numbers

**Objectives:** Compare numbers up to 3-digit number with 2 decimal places using signs  $<$ ,  $>$  or  $=$

**Teaching Resources:** - Book pg. 51, teacher's board, decimals place value chart

### Introduction (5min)

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
3	5	2	8	.	7	4

Show the children decimal place value chart and ask children to read the decimal number and its places and values. Explain about the difference of whole number and decimals and decimal point .

### Teaching Procedure (20 min)

Write two decimal number on teacher's board and explain them to observe the very first value for comparison if whole number value same and only decimal part value difference then compare accordingly like

$345.67 > 345.23$  .Ask them to observe all values and then compare .Explain them the example 1,2 pg. 51 .write more decimal numbers for practice work on board and ask children to practice the concept.

Discuss the real life examples like decimal number help us compare the minute values easily

### Task 15min

Exercise 1(Q1): Children should compare the 3-digit numbers with 2 decimal place. (The first one is done for them)

### H.W: Explanation (2min)

Children should do Review Exercise page 66 Q1 in Homework.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 2: Ordering of Decimal Numbers

**Objectives:** Arrange numbers up to 3-digit number with 2 decimal places in Ascending and Descending orders.

**Teaching Resources:** - Book pg. 52, teacher's board, Ascending and descending chart

### Introduction (5min)

Tell children ascending means (smallest to biggest) increasing order

Descending means (biggest to smallest) decreasing order

Write few decimal number and ask randomly from children which number is bigger, which number comes first.

### Teaching Procedure (20 min)

Write few decimal number on teacher's board and explain them to observe the very first value then decimals tenth value if first value is same then order according the tenth value.

Like 345.96, 345.63, 345.02

Ascending order: 345.02, 345.63, 345.96

Descending order: 345.96, 345.63, 345.02

.Explain them the example 3,4 pg. 52 .Write more decimal numbers for practice work on board and ask children to practice the concept.

Discuss the real life example of decimals ordering to find increase and decrease of values in a minute level.

### Task 15min

Exercise 1(Q2): Children should order the 3-digit numbers with 2 decimal place in ascending order. (The first one is done for them) (a-c) parts
---

Exercise 1(Q3): Children should order the 3-digit numbers with 2 decimal place in descending order. (The first one is done for them)(a-c) parts
---

### H.W: Explanation (2min)

Children should do Q2 and Q3 remaining parts in Homework.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 3: Addition and Subtraction of Decimal Numbers

**Objectives:** Add and Subtract 4 digit numbers up to 3 decimal places

**Teaching Resources:** - Book pg. 53, teacher's board

### Introduction (5min)

Discuss the addition and subtraction rule of whole numbers then tell the children about the decimal numbers .Write few decimal number and ask children to add and subtract decimal numbers same like whole numbers but start from left to right

### Teaching Procedure (20 min)

Write few decimal number on teacher's board and explain them to add and subtract the decimal numbers .Explain them the example 1,2 pg. 53 .Write more decimal numbers for practice work on board and ask children to practice the concept. Ask children to observe the both decimal number if among both any decimal number have only 2 decimal place then write for 3<sup>rd</sup> place 0 at empty place.

## Adding & Subtracting Decimals

- Steps:**
1. Stack your decimals.
  2. Put placeholders (zeroes) in empty spaces, if needed.
  3. Drop your decimal point.
  4. Add or Subtract

$$\begin{array}{r} 34.567 \\ + 65.371 \\ \hline 99.938 \end{array}$$

### Task 15min

Exercise 1(Q4): Children should Add 4 digit numbers up to 3 decimal places. (The first one is done for them)

Exercise 1(Q5): Children should Subtract 4 digit numbers up to 3 decimal places. (The first one is done for them)

### H.W: Explanation (2min)

Children should do Ex 2 Q1 and Q2 page 59 in Homework.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 4: Addition and Subtraction of Decimal Numbers

**Objectives:** Solve real life situations involving operation of Addition, Subtraction of decimal numbers

**Teaching Resources:** - Book pg. 54, teacher's board. Word problem keywords chart

### Introduction (5min)

Ask children to read the sample word problem question from teacher's board, then ask children what we will do?

### Teaching Procedure (15min)

Ask children to read the real life problem from book page 54 then discuss the keywords to identify the solution

Word Problem Keywords			
<b>Addition</b> sum plus total of together added to combined more than older than farther than consecutive greater than increased by	<b>Subtraction</b> left less minus less than difference fewer than smaller than younger than decreased by diminished by subtracted from	<b>Multiplication</b> of twice triple each times product of multiplied by	<b>Division</b> in per split out of ratio of average percent quotient of equal pieces

Tell them the steps to solve the real life problem.

1. Read the problems carefully
2. Understand the facts (numbers, data)
3. Draw a picture if u need
4. Write a number sentence (which operation)
5. Solve the problem show your calculations
- 6 .check your answer and write answer statement.

Ask from children then discuss to solve the real life problem.

### Task 18 min

Exercise 1(Q6 TILL 8): Children should solve the real life problem after identify the keywords and operation.

### H.W: Explanation (2min)

Children should do Review Exercise Q2 and Q3 in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 5: Multiplication of Decimal Numbers by 10,100, 1000

**Objectives:** Multiply a 3 digit number up to 2 decimal places by 10,100 and 1000

**Teaching Resources:** - Book pg. 54, 55, teacher's board, decimal number multiplication rule

### Introduction (5min)

Ask the children what will happen if we multiply any number by 10,100 and 1000.

If we multiply decimal numbers by 10,100 and 1000 then the value increases? Observe prior knowledge of children.

### Teaching Procedure (20 min)

#### Multiplication of a Decimal by 10, 100, 1000

When the multiplier is 10, 100 or 1000, we move the decimal point to the right by as many places as number of zeroes after 1 in the multiplier.

For Example:

$$\begin{array}{l} 8.597 \times 10 = 85.97 \\ 8.597 \times 100 = 859.7 \\ 8.597 \times 1000 = 8597.0 \end{array}$$

Write few decimal numbers on teacher's board and explain them how to multiply decimal number by 10,100 and 1000.

.Explain them the example 1,2 pg. 54, 55. Write more decimal numbers for practice work on board and ask children to practice the concept.

### Task 15min

Exercise 1(Q3): Children should multiply 3 digit number up to 2 digit place by 10,100 and 1000 . (The first one is done for them)

### H.W: Explanation (2min)

Children should do practice of concept at home.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson

## Lesson 6: Multiplication of Decimal Numbers by a whole number

**Objectives:** Multiply a 3 digit number up to 2 decimal places by a whole number up to 2 digit

Multiply a 3 digit number up to 2 decimal places by a whole number up to 2 decimal places

**Teaching Resources:** - Book pg. 55, 56, teacher's board and mental math questions.

### Introduction (5min)

Ask children what is  $1.5 \times 2$  is 3

4 times 2.6 is 10.4

If we multiply 3.5 with 4 = 14

What is the product (answer) of 6.7 by 8 = 53.6?

Double of 6 means  $(6 \times 2.5)$  is 15

Observe the prior knowledge of children and make them ready to multiply decimal number by 2 digit number.

### Teaching Procedure (15min)

Ask children to observe book page 55 then Write decimal number on teacher's board and multiply with 2 digit number step by step. Inform children to multiply the ones with hundredth place digit then tenth then ones .when they multiply the ones with first decimal number place then they will write zero and start tens digit multiplication with again with same decimal number after that they will add to find the final product by using standard method of multiplication and write the decimal in answer by observing the decimal number (multiplicand)

Children observe the example 2 on page 56 and follow the same steps they will follow when children will multiply decimal number with decimal number after getting 2 answers (products) they will write 2 zeroes and multiply the hundreds with the given number after that they will add to find the final product write the decimal in answer by observing the decimal number (multiplicand)

Discuss the real life example that how decimal number help to count the minute values

Task 18 min

Exercise 2(Q4): Children should multiply the decimal numbers by 2 digits by using standard method of multiplication then solve the given sums.(the first one is done for them)(a-c)

Exercise 2(Q5): Children should multiply the decimal numbers by decimal number by using standard method of multiplication then solve the given sums. (The first one is done for them)(Part a-c)

### H.W: Explanation (2min)

Children should complete the remaining sums of Q4 and Q5 in Homework

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson



## Lesson 7: Division of Decimal Numbers by 10,100, 1000

**Objectives:** Divide a 3 digit number up to 2 decimal places by 10,100 and 1000

**Teaching Resources:** - Book pg. 57, teacher's board, decimal number Division rule

### Introduction (5min)

Ask the children what will happen if we divide any number by 10,100 and 1000.

If we divide decimal numbers by 10,100 and 1000 then value decrease? Observe prior knowledge of children.

### Teaching Procedure (20 min)

**Division of a Decimal Number by 10, 100 or 1000**

Division of a decimal number by 10, 100 or 1000 can be performed by moving the decimal point to the left by as many places as the number of zeroes in the divisor.

For Example:

$752.3 \div 10$	=	75.23
$752.3 \div 100$	=	7.523
$752.3 \div 1000$	=	0.7523

Write few decimal number on teacher's board and explain them how to divide decimal number by 10,100 and 1000.

Explain them the example 1, 2, 3 pg. 57. Write more decimal numbers for practice work on board and ask children to practice the concept.

Discuss the real life example of dividing decimals by 10, 100, 1000 we can get quick decreased values for calculations.

### Task 15min

Exercise 1(Q3): Children should divide 3 digit number up to 2 digit place by 10,100 and 1000. (The first one is done for them)

### H.W: Explanation (2min)

Children should do practice of concept at home.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson

## Lesson 8: Division of Decimal Numbers by a whole number

**Objectives:** Divide a 3 digit number up to 2 decimal places by a whole number up to 2 digit

**Teaching Resources:** - Book pg. 57, 58, teacher's board and mental math questions.

### Introduction (5min)

Ask children what is  $73.5 \div 15$  is 4.9

5.6 divided by 1.6 is 3.5

If we divide 8.1 with 9 = 0.9

What is the quotient (answer) of 7.2 by 2 = 3.6?

Half of 16 means ( $3.6 \div 2$ ) is 1.8

Observe the prior knowledge of children and make them ready to divide decimal 3 digit number with 2 decimal place

### Teaching Procedure (15min)

Ask children to observe book page 57 then write decimal number on teacher's board and divide with 2 digit number step by step. Inform children to divide the decimal value we remove the decimal point by writing in fraction form then use reciprocal method to divide the decimal number. They can also divide the decimal by decimal number by reducing its decimal to change into fractions then use reciprocal method to get answer and at last divide the fraction to get answer again in decimals,

Discuss the real life example that how long division helps them to convert the fractions into decimals.

### Task 18 min

Exercise 2(Q7): Children should divide the decimal 3 digits by 2 decimal place by using reciprocal method (the first one is done for them) (a-c) parts
--

Exercise 2(Q8): Children should divide the decimal number by decimal number place by using reciprocal method (the first one is done for them) (a-c) parts
---

### H.W: Explanation (2min)

Children should complete the remaining sums of Q7 and Q8 in Homework

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson

## Lesson 9: Change fractions into decimals

**Objectives:** convert the fractions into decimals using Division method

**Teaching Resources:** - Book pg. 58, teacher's board and mental math questions.

### Introduction (5min)

What is the half of 0.5? 0.25, Divide 45.5 by 15=3.033, Quotient of 34.7 and 21.2=1.636

Observe the prior knowledge of children and make them ready to divide decimal 3 digit number with 2 decimal place

### Teaching Procedure (15min)

$$\frac{3}{8} = 0.375$$

8	30
	24
	60
	56
	40
	40
	0

The long division process for  $\frac{3}{8}$  is shown. The quotient 0.375 is circled, and an arrow points from it to the equation  $\frac{3}{8} = 0.375$ .

Ask children to observe book page 58 then write fraction on teacher's board and divide with long division method to change into decimals step by step. Inform children that we can change fraction into decimal by using long division method.

Solve example 1, or 2 pg. 58 on teacher's board. Discuss the real life example that how long division helps them to convert the fractions into decimals.

### Task 18 min

Exercise 2(Q9): Children should convert the fractions into decimals by using long method of division then solve the given sums. (The first one is done for them)

H.W: Explanation (2min)

Children should complete the remaining sums of Q9 in Homework

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson

## Lesson 10: Real life Problems involving division of decimals

**Objectives:** Solve real life situations involving division of 3 –digits numbers up to 2 decimal places.

**Teaching Resources:** - Book pg. 60, teacher’s board. Word problem keywords chart

### Introduction (5min)

Ask children to read the sample word problem question from teacher’s board, then ask children what we will do?

### Teaching Procedure (15min)

Ask children to read the real life problem from book page 60 then discuss the keywords to identify the solution

Tell them the steps to solve the real life problem.

1. Read the problems carefully
  2. Understand the facts (numbers, data)
  3. Draw a picture if u need
  4. Write a number sentence (which operation)
  5. Solve the problem show your calculations
  - 6 .check your answer and write answer statement.
- Ask from children then discuss to solve the real life problem.

### Task 18 min

Exercise 2(Q10 till 12): Children should solve the real life problem division of decimals after identify the keywords

### H.W: Explanation (2min)

**Research base homework:** Children should practice the word problem from other books in Homework and discuss with teacher next day.

**Teachers’ Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

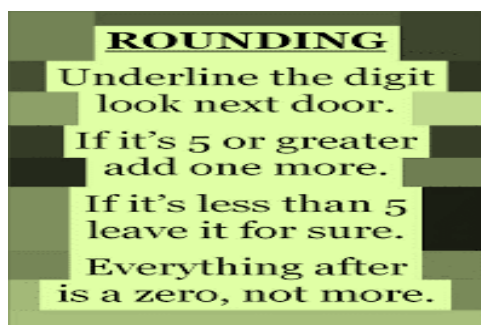
## Lesson 11: Rounding off Decimals

**Objectives:** Round off a 4 digit number up to 3 decimal places to the nearest tenth and hundredth places

**Teaching Resources:** - Book pg. 60 and 61, teacher's board, rounding off rule chart

### Introduction (5min)

Draw a number line between 10 and 11 and ask children to find which decimal number is closer to 10 or 11 like 10.2 round off 10 and 10.7 round off 11. tell the children round off rules



Observe the prior knowledge of children and make them ready to divide decimal 3 digit number with 2 decimal place

### Teaching Procedure (15min)

Ask children to observe book page 60 and 61 then write decimal number on teacher's board and circle the value which are going to round off. Then check the next place value if next place value is less than 5 it will remain same but if 5 or more than 5 it will increase in the circle value. Children will round off the decimal numbers to the nearest tenth and hundredth.

Solve example 1, or 2 pg. 60, 61 on teacher's board. Discuss the real life example that how rounding off values use for finding nearest close value for calculations.

### Task 18 min

Exercise 3(Q1): Children should round off decimal numbers to the nearest tenth the then solve the given sums. (The first one is done for them)

Exercise 3(Q2): Children should round off decimal numbers to the nearest hundredth the then solve the given sums. (The first one is done for them)

### H.W: Explanation (2min)

Children should complete the remaining sums of Q1 and Q2 in Homework

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson

## Lesson 12: Estimate sum and difference of the numbers

**Objectives:** Estimate sum and difference of the numbers (up to 4 digit)

**Teaching Resources:** - Book pg. 61, teacher's board, number line

### Introduction (5min)

Draw a number line between 20 and 21 and ask children to find which decimal number is closer to or 20 and 21 like 20.2 round off 20 and 20.7 round off 21. discuss the children round off rules

Observe the prior knowledge of children and make them ready to divide decimal 3 digit number with 2 decimal place

### Teaching Procedure (15min)

Ask children to observe book page 61 then write two decimal number on teacher's board and circle the value which are going to round off. Then check the next place value if next place value is less than 5 it will remain same but if 5 or more than 5 it will increase in the circle value. Children will round off the both given decimal numbers to the nearest tenth and hundredth then add and subtract to find the estimate sum and estimate subtraction by horizontal addition or standard method.

Solve example 1, or 2 pg. 60, 61 on teacher's board. Discuss the real life example about the use of estimation in real life make work easier and get quick answers ,by investing any amount in any project.

### Task 18 min

Exercise 3(Q3): Children should round off decimal numbers to the nearest tenth then add the estimate answers. (The first one is done for them) (a-c) parts
--

Exercise 3(Q4): Children should round off decimal numbers to the nearest hundredth then subtract the estimate answer (The first one is done for them) (a-c) parts
---

H.W: Explanation (2min)

Children should complete the remaining sums of Q3 and Q4 in Homework

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson

## Lesson 13: Percentage as a special kind of fraction

**Objectives:** Recognize the percentage as a special kind of fraction

**Teaching Resources:** - Book pg. 63, teacher's board, percentage (sales promotion tags)

### Introduction (5min)

Ask children about the term percentage (out of hundred) and they have ever heard that term in daily life activities. Then inform them we calculate our test score total in percentage, quantity of items in percentage. We use % symbol to show the percentage

Observe the prior knowledge of children and make them ready to know about the special kind of fraction we use to represent percentage

### Teaching Procedure (15min)

$$25\% = \frac{25}{100}$$

Ask children to observe book page 63 then write percentage on teacher's board and write percentage into fraction by writing 100 as denominator of that percentage numbers like 25% =25/100

Solve example 1, or 2 pg. 63 on teacher's board. Discuss that Percentages are used widely and in many different areas. For example, **discounts in shops**, bank interest rates, rates of inflation and many statistics in the media are expressed as percentages. Percentages are important for understanding the financial aspects of everyday life.

### Task 18 min

Exercise 4(Q1): Children should convert the percentage into fractions (The first one is done for them)

H.W: Explanation (2min)

Children should complete Review Exercise Q14 in Homework

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson

## Lesson 14: Change percentage to fraction, decimals

**Objectives:** Convert the percentages into fraction and to decimal number and vice versa

**Teaching Resources:** - Book pg. 63 and 64, teacher's board and mental math questions.

**Introduction (5min)** Do you know?

0.5 is equal to  $50/100 = 50\% = \text{half}$

0.25 is equal to  $25/100 = 25\% = \text{quarter}$

0.75 is equal to  $75/100 = 75\% = \text{third quarter}$

Observe the prior knowledge of children and make them ready to convert the fractions into percentage and decimal into percentages vice versa

### Teaching Procedure (15min)

Ask children to observe book page 63, 64 then write percentage on teacher's board and explain them the method by solving example 1 and 2 step by step. Inform children that we can change percentage into decimals (divided by 100), decimals into percentage (write decimal in fraction then change denominator 100) and fraction into percentage (multiply numerator and denominator to make denominator 100 get answer in fraction form then convert fraction into percentage. Discuss the real life example that how long conversion of percentage help to show our answers in many ways.

### Task 20 min

Exercise 4(Q2): Children should convert the fractions into percentage then solve the given sums. (The first one is done for them) (a-c) parts
Exercise 4(Q3): Children should convert the percentage into decimals then solve the given sums. (The first one is done for them) (a-c) parts
Exercise 4(Q4): Children should convert the decimals into percentage then solve the given sums. (The first one is done for them) (a-c) parts

Teacher may complete the plan in two periods as per their easiness.

### H.W: Explanation (2min)

Children should complete the remaining sums of Q2, Q3, and Q4 in Homework

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lesson



## Lesson 15: Real life Problems involving percentages

**Objectives:** Solve real life situations involving percentages

**Teaching Resources:** - Book pg. 65, teacher's board. Word problem keywords chart

### Introduction (5min)

Ask children to read the sample word problem question from teacher's board, then ask children what we will do?

### Teaching Procedure (15min)

Ask children to read the real life problem from book page 60 then discuss the keywords to identify the solution

Tell them the steps to solve the real life problem.

1. Read the problems carefully
  2. Understand the facts (numbers, data)
  3. Draw a picture if u need
  4. Write a number sentence (which operation)
  5. Solve the problem show your calculations
  - 6 .check your answer and write answer statement.
- Ask from children then discuss to solve the real life problem.

### Task 18 min

Exercise 4(Q5 till Q7): Children should solve the real life problem involving percentages after identify the keywords

**H.W: Explanation (2min)** Children should do Q8 in Homework

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

# Unit 5: Distance and Time

## Lesson 1: Conversion of units of length

**Objectives:** Convert measures of length given in kilometers to meters and vice versa

**Teaching Resources:** - Book pg. 69, teacher's board, Standard Metric unit of length chart, measuring scale

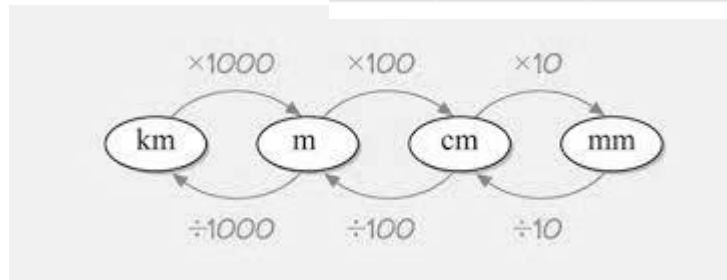
### Introduction (5min)

Show the children SI unit chart and ask children to read the discuss the symbols which we use for metres ,kilometers .show them the measuring scale and explain them about the difference of mm, cm ,m and km

Quantity	SI unit	Symbol
Length	Meter	m
Mass	Kilogram	Kg
Time	Second	s
Area	Square meter	m <sup>2</sup>
Volume	Cubic meter	m <sup>3</sup>

### Teaching Procedure (20 min)

Tell the children short form  
SBD=SMALLER TO BIGGER DIVIDE and  
BSM=BIGGER TO SMALLER MULTIPLY



Explain them when we convert the smaller unit to bigger we divide like how many cm in 40mm are 4cm(40÷10)and when we convert the bigger unit to smaller we will multiply like how many m in 4km are 4000m (4 x1000=4000)

Ask them to observe all the units then convert, solve example 1 pg. 69

Discuss the real life examples Converting is important because it **will help you measure the size of an object easily it will help you measure an amount easily**. Conversion factor is used to convert a measured quantity to a different unit of measure without changing the relative amount.

### Task 15min

Review Exercise: Children should solve Review Exercise Q1, Q2, and Q3.

### H.W: Explanation (2min)

Children should do Review Exercise Q4 page 79 in Homework.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 2: Addition and Subtraction of units

**Objectives:** Add and subtract the given units of length

**Teaching Resources:** - Book pg. 70, teacher's board, Standard Metric unit of length chart,

### **Introduction (5min)**

Ask children how many?

How many mm in 1cm=10mm

How many cm in 1m=100cm

How many m in 1 km=1000m

Discuss with children that for short measurement we can use mm ,cm and m and for long distance measurement we can use m and km.

### **Teaching Procedure (20 min)**

Tell the children that we can make a sum by writing the same unit value under the same unit and then add and subtract like ordinary numbers.

Discuss the real life examples Length is one of the most common measurements that is used every day. This can tell **you how far away the nearest town is, the width of a fridge or your height**. In science it can be used on very different scales to measure the size of the universe,

*Subtraction — Metres and Centimetres*

Subtract 39 m 86 cm from 42 m 9 cm

m	cm
42	09
- 39	86
<hr/>	

Decompose and subtract like ordinary numbers.



### **Task 15min**

Exercise 5.1(Q1): Children should Add and subtract the given questions (the first one is done for them)

### **H.W: Explanation (2min)**

Children should do Review Exercise Q5 page 79 in Homework.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

### **Lesson 3: Percentage of units**

**Objectives:** find the percentage of the given units of lengths

**Teaching Resources:** - teacher's board, Standard Metric unit of length chart,

#### **Introduction (5min)**

Ask children mental Math questions

50% of 1000 km =500km

25% of 800 cm =200cm

75% of 10mm=7.5mm

#### **Teaching Procedure (20 min)**

Tell the children we can find the percentage of unit of lengths in the same way which we already done in percentage topic. Like

25% of 300km means  $25/100 \times 300 = 75\text{km}$

Explain them when we find the percentage we divide the percent number by 100 then multiply the given distance.

Discuss the real life examples that percentage of distance gives a clear portion of the length.

#### **Task 15min**

Exercise5.1 (Q2): Children should find the percentage of given distance. (The first one is done for them)

#### **H.W: Explanation (2min)**

Children should find the percentage of following distance in Homework.

1)63% of 56km 2) 76% of 2000km 3) 92% of 300m

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 4: Real life Situations involving units of length

**Objectives:** Solve real life situations involving conversion, addition and subtraction of measurement of distance

**Teaching Resources:** - Book pg. 70, teacher's board. Word problem keywords chart

### **Introduction (5min)**

Ask children to read the sample word problem question from teacher's board, then ask children what we will do?

### **Teaching Procedure (15min)**

Ask children to read the real life problem from book page 70 then discuss the keywords to identify the solution

Word Problem Keywords			
Addition	Subtraction	Multiplication	Division
sum	left	of	in
plus	less	twice	per
total of	minus	triple	split
together	less than	each	out of
added to	difference	times	ratio of
combined	fewer than	product of	average
more than	smaller than	multiplied by	percent
older than	younger than		quotient of
farther than	decreased by		equal pieces
consecutive	diminished by		
greater than	subtracted from		
increased by			

Tell them the steps to solve the real life problem.

1. Read the problems carefully
2. Understand the facts (numbers, data)
3. Draw a picture if u need
4. Write a number sentence (which operation)
5. Solve the problem show your calculations
- 6 .check your answer and write answer statement.

Ask from children then discuss to solve the real life problem.

### **Task 18 min**

Exercise5. 1(Q1 TILL 3): Children should solve the real life problem after identify the keywords and operation.

### **H.W: Explanation (2min)**

Children should do Exercise 5.1 Real life problem Q4 and Q5 in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 5: Conversion of units of time

**Objectives:** Convert hours to minutes, minutes to seconds and vice versa

**Teaching Resources:** - Book pg. 72, 73, 74 teacher's board, Standard Metric unit of time chart, analog clock

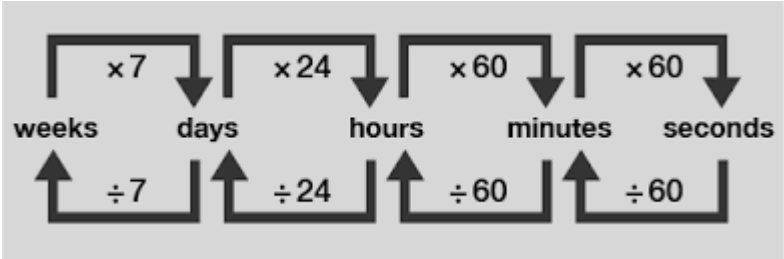
**Introduction (5min)**

Show the children time intervals and ask them to read the discuss the symbols which we use for hours ,minutes and seconds .show them the analog clock and move the hours hands and minutes hands ,seconds hand to show the change (conversion )of time

1 minute = 60 seconds
1 hour = 60 minute
1 day = 24 hours
1 week = 7 days
1 month = 30 or 31 days (February has 28 days, in a leap year February has 29 days)
1 year = 12 months
1 year = 365 days (366 days in a leap year)

**Teaching Procedure (18 min)**

Tell the children short form SBD=SMALLER TO BIGGER DIVIDE and BSM=BIGGER TO SMALLER MULTIPLY



Explain them when we convert the bigger unit to smaller we multiply like how many min in 2hrs are 180 min (2x60) we convert hours in minutes and when we convert the smaller unit to bigger we will divide like how many hours in 3600 min (3600 ÷60)60 hours

Explain them when we convert the bigger unit to smaller we multiply like how many min in 2hrs are 180 min (2x60) we convert hours in minutes and when we convert the smaller unit to bigger we will divide like how many hours in 3600 min (3600 ÷60)60 hours

Ask them to observe all the units then convert, solve example 1 pg. 72, 73, 74

Discuss the real life examples Converting is important because it **will help you measure the time intervals for plan outdoor activities, measuring of time for any particular activity.**

**Task 20min**

Exercise 5.2 (Q1) Children should convert the fraction of hours, days, month and percentage of hrs. Into min (the first one is done for them)
Exercise 5.2 (Q2) Children should convert the minutes into hours. (The first one is done for them)

**H.W: Explanation (2min)**

Children should do Review Exercise Q9 page 79 in Homework.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

**Lesson 6: Real life Situations involving time**

**Objectives:** Solve real life situations involving conversion, addition and subtraction of measurement of time in minutes, seconds and hours

**Teaching Resources:** - Book pg. 76, teacher's board. Word problem keywords chart

**Introduction (5min)**

Ask children to read the sample word problem question from teacher's board, then ask children what we will do?

**Teaching Procedure (15min)**

Ask children to read the real life problem from book page 70 then discuss the keywords to identify the solution

Word Problem Keywords			
<b>Addition</b> sum plus total of together added to combined more than older than farther than consecutive greater than increased by	<b>Subtraction</b> left less minus less than difference fewer than smaller than younger than decreased by diminished by subtracted from	<b>Multiplication</b> of twice triple each times product of multiplied by	<b>Division</b> in per split out of ratio of average percent quotient of equal pieces

Tell them the steps to solve the real life problem.

1. Read the problems carefully
2. Understand the facts (numbers, data)
3. Draw a picture if u need
4. Write a number sentence (which operation)
5. Solve the problem show your calculations
- 6 .check your answer and write answer statement.

Ask from children then discuss to solve the real life problem.

**Task 20 min**

Exercise5. 2(Q3TILL 5): Children should solve the real life problem after identify the keywords and operation.

**H.W: Explanation (2min)**

Children should do Exercise 5.2 Real life problem Q5 in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

**Lesson 7: Conversion of units of time**

**Objectives:** Convert years to months, months to days, week to days and vice versa

**Teaching Resources:** - Book pg. 72, teacher's board, Standard Metric unit of time chart, yearly calendar

**Introduction (5min)**

Ask children how many?

How many minutes in 3 hrs? **180 min**

How many days in 4 months? **120 days**

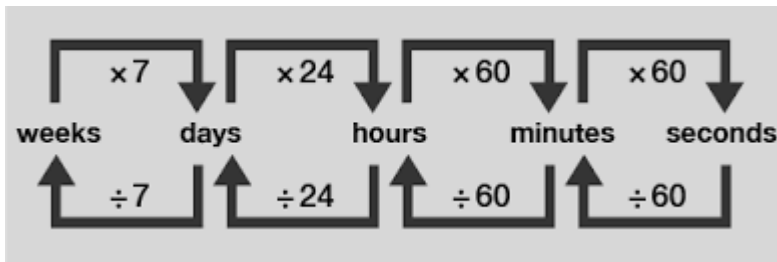
How many years in one decade ? **10 years**

How many weeks in a year? **52 weeks**

Show them the Yearly calendar and ask about the months in a year ,days in a month.

**Teaching Procedure (18 min)**

Tell them the difference of Solar (30 or 31 days in a month) and lunar calendar (29 or 30 days in a month)



Tell the children short form SBD=SMALLER TO BIGGER DIVIDE and BSM=BIGGER TO SMALLER MULTIPLY

Explain them example 9 question pg. 78

Discuss the real life examples Converting is important because it will help you measure the time intervals for plan outdoor activities, measuring of time for any particular activity.

**Task 20min**

Exercise 5.3 (Q1) Children should convert the years into months (the first one is done for them)
Exercise 5.3 (Q2) Children should convert the months, weeks, fraction of weeks, and fraction of months into days (The first one is done for them)

**H.W: Explanation (2min)**

Children should do Review Exercise Q9 page 79 in Homework.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

**Lesson 8: Real life Situations involving time**



**Objectives:** Solve real life situations involving conversion, addition and subtraction of measurement of time of years, days, months and weeks

**Teaching Resources:** - Book pg. 76, teacher's board. Word problem keywords chart

### Introduction (5min)

Ask children to read the sample word problem question from teacher's board, then ask children what we will do?

### Teaching Procedure (15min)

Ask children to read the real life problem from book page 70 then discuss the keywords to identify the solution

Word Problem Keywords			
<b>Addition</b> sum plus total of together added to combined more than older than farther than consecutive greater than increased by	<b>Subtraction</b> left less minus less than difference fewer than smaller than younger than decreased by diminished by subtracted from	<b>Multiplication</b> of twice triple each times product of multiplied by	<b>Division</b> in per split out of ratio of average percent quotient of equal pieces

Tell them the steps to solve the real life problem.

1. Read the problems carefully
  2. Understand the facts (numbers, data)
  3. Draw a picture if u need
  4. Write a number sentence (which operation)
  5. Solve the problem show your calculations
  - 6 .check your answer and write answer statement.
- Ask from children then discuss to solve the real life problem.

### Task 20 min

Exercise 5.3 (Q3 TILL Q5): Children should solve the real life problem after identify the keywords and operation.

### H.W: Explanation (2min)

Children should do Exercise 5.3 Real life problem Q6 in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 9: Review Exercise

**Objectives:** Revise the concepts given about the conversion of Distance and Time.

**Teaching Resources:** - Book pg. 79,80, teacher's board

**Introduction (5min)**

Write questions on board and ask children to revise the taught concepts and discuss the answers in class.

**Teaching Procedure (15min)**

Design a short test from the review exercises and ask students to solve independently .teacher will observe their working during class.

Task (20 min)

Children will complete the given review Exercise question test.

Teacher will check their test in copies and give them feedback and identify their area of improvement.

**Unit 6: Unitary Method**

**Unit: 7 Geometry**

# Unit 8: Perimeter and Area

## Lesson 1: Perimeter and Area

**Objectives:** Differentiate between perimeter and area of a square and Rectangular region. Identify the units for measurement of perimeter and area

**Teaching Resources:** - Text book pg.119, 120,121 teacher's board, perimeter and area diagrams chart

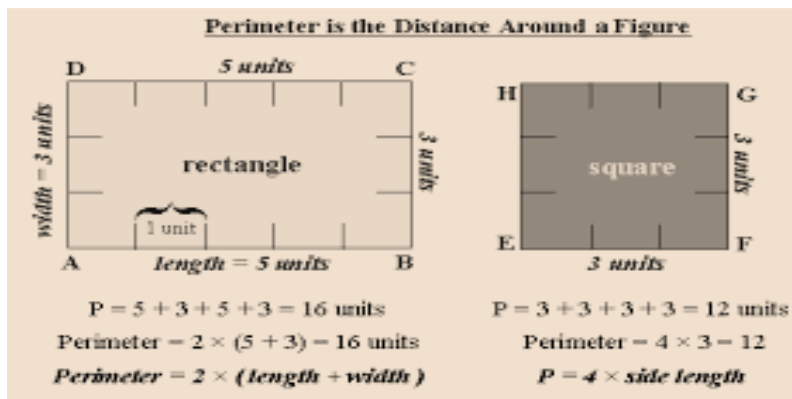
### Introduction (5min)

Children will observe the book opener pg.119 and discuss the shapes and its position .they will discuss the definition of perimeter and area of difference shapes.

### Teaching Procedure (20 min)

Draw rectangle shape on board and explain children about the total outer boundary of a figure is called Perimeter and its unit is mm,cm metre and kilometre

Area is the space occupied by a shape it can be find out by multiplying length and breadth ,its unit is square mm,sqaure cm .square m.large area are measured in square kilometres

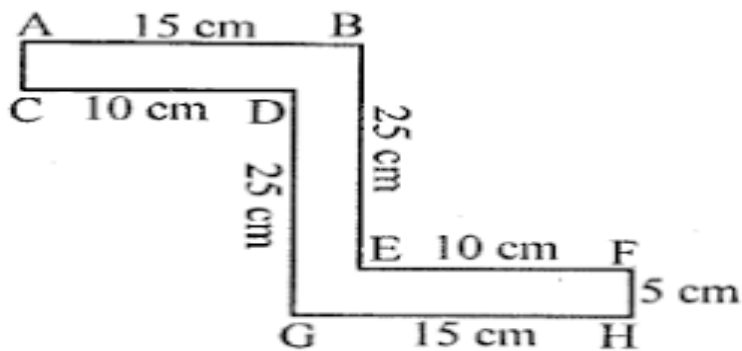


They will add the units around the square and rectangle find the total lengths for perimeter and for area they count the inner space or units then multiply the long side length with short side width in rectangle

Teacher will show them the closed figure and tell them the method how to count the units and find the area on the given grid

1	2	3	4			
			5			
			6			
			7	8	9	

Show them the figure and tell them how to calculate the perimeter by counting units and by formula



Solved the example questions and discuss the some common uses of area and perimeter in the real world? In everyday life area and perimeter are used constantly – for example, for **describing the size of a house by talking about its floor area**, or for working out how much wire is needed to fence off a field.

**Task 18min**

Exercise 8.1(Q1) Children should find the area of given enclosed shapes on grid on book page 123
Exercise 8.1 (Q2) children should find the perimeter and area of the given figures (only a part)

**H.W: Explanation (2min)**

Children should do Q2 Ex 8.2 (b, c part) in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## **Lesson 2: Perimeter and Area**

**Objectives:** find and apply formulas to find the perimeter and area of a square and rectangular region

**Teaching Resources:** - Text book pg.122 teacher's board, perimeter and area formula chart

### **Introduction (5min)**

Draw square and rectangle shape on teacher's board along with the length and width and ask children how they can find the perimeter and area by counting its units

### **Teaching Procedure (20 min)**

They will add the units around the square and rectangle find the total lengths for perimeter and for area they count the inner space or units then multiply the long side length with short side width in rectangle

Tell them the formula for perimeter and Area of square and rectangle

Square	rectangle
Formula of perimeter $P=4 \times \text{sides length}$	Formula of perimeter $P=2 \times (L + W)$
Formula of Area $A= L \times L$	Formula of Area $A= L \times W$

Show them the figure and tell them how to calculate the perimeter by counting units and by formula of pg.123.Solved the example questions and discuss the some common uses of area and perimeter in the real world? In everyday life area and perimeter are used constantly – for example, for **describing the size of a house by talking about its floor area**, or for working out how much wire is needed to fence off a field.

### **Task 18min**

Exercise 8.1(Q3) Children should find the area and perimeter of given lengths of square and rectangle page 124

Exercise 8.1 (Q4) children should find the perimeter of rectangle of the given figures by using formula (only a, b part)

### **H.W: Explanation (2min)**

Children should do Q4 Ex 8.1 (c, d part) and Q5 in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 3: Real life Problems

**Objectives:** Solve real life situations involving operation of Perimeter and Area

**Teaching Resources:** - Book pg. 124, teacher's board. Word problem keywords chart

### **Introduction (5min)**

Ask children to read the sample word problem question from teacher's board, then ask children what we will do?

### **Teaching Procedure (15min)**

Ask children to read the real life problem from book page 14 then discuss the keywords to identify the solution

<b>Word Problem Keywords</b>			
<b>Addition</b> sum plus total of together added to combined more than older than farther than consecutive greater than increased by	<b>Subtraction</b> left less minus less than difference fewer than smaller than younger than decreased by diminished by subtracted from	<b>Multiplication</b> of twice triple each times product of multiplied by	<b>Division</b> in per split out of ratio of average percent quotient of equal pieces

Tell them the steps to solve the real life problem.

1. Read the problems carefully
2. Understand the facts (numbers, data)
3. Draw a picture if u need
4. Write a number sentence (which operation)
5. Solve the problem show your calculations
- 6 .check your answer and write answer statement.

Ask from children then discuss to solve the real life problem.

### **Task 18 min**

Exercise 4(Q7 till Q8): Children should solve the real life problem after identify the keywords and operation.

### **H.W: Explanation (2min)**

Children should complete the remaining real life problems of Q9 in Home work.

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## **Lesson 4: Review Exercise**

**Objectives:** Revise the concepts given about perimeter and area

**Teaching Resources:** - Book pg. 125 teacher's board

### **Introduction (5min)**

Write questions on board and ask children to revise the taught concepts and discuss the answers in class.

### **Teaching Procedure (15min)**

Design a short test from the review exercises and ask students to solve independently .teacher will observe their working during class.

### **Task (20 min)**

Children will complete the given review Exercise question test.

Teacher will check their test in copies and give them feedback and identify their area of improvement.

# Unit 9: Data Handling

## Lesson 1: Average

**Objectives:** Find and describe average of given quantities in data. Solve real life situations involving average.

**Teaching Resources:** - Text book pg.126, 127, 128 teacher's board, types of data chart

### Introduction (5min)

Children will observe the book opener pg. 126 and read the introduction about data handling and teacher will ask from children that how can we write your personal data in the form of name, address, and phone number .observe children prior knowledge and make them ready for data handling

### Teaching Procedure (20 min)

Tell children about data handling process of gathering ,recording and presenting information in a way that help others.it is a set of skills which include

Collecting of data using a planned method

Recording data with accuracy

Analyzing data to draw results

Choring data in a way whih is useful to others

Show them the figure and tell them how many ways to represent data in the form of bar graph, line graph, pie chart .pictorial graphs

Explain them about the average means central values and it's also called mean.

Solve the example questions pg. 127,128 and tell them that we can also arranged data in tabulation if data given randomly we can arrange in group data. Discuss the real life examples like average marks obtained by each children, average height of children of class 5, and average annual production of the country

#### Mean: Average

How to find the mean?

1. Add up all the numbers.
2. Divide the sum by the number of values.

*Example:*

The mean of 6, 3, 8, and 5 is

$$\frac{7+9+5+3}{4} = \frac{24}{4} = 6$$

### Task 18min

Exercise 9.1(Q1 till 3) Children should find the average of the given data

### H.W: Explanation (2min)

Children should do Q4 and Q5 pg.129 in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.



## Lesson 2: Bar graph (bar chart)

**Objectives:** Organize data in the table form, read and interpret a bar graph given in horizontal and vertical form

**Teaching Resources:** - Text book pg.130, 131,132, teacher's board, types of bar charts

### **Introduction (5min)**

Ask student to collect data in class about how many?

How many girls in class?

How many boys in class?

How many children have straight hairs?

How many children have curly hairs?

How many children wearing glasses?

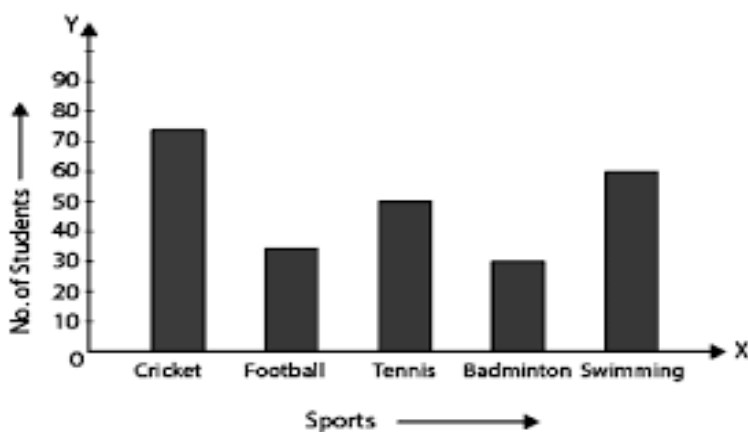
### **Teaching Procedure (20 min)**

Tell children about collection of data in the form of tabulation explain them example 2 pg.130 that how can we organise data in tables. Like

Ask children how many children like cricket, football, badminton and tennis in school

Name of sports	Number of children
Cricket	70
football	35
tennis	50
badminton	30
Swimming	60

Tell children that we can also show this data in bar graph form.



Tell the methods if bar chart (bar graph) is given then how we can read that graph data and answer the given question explain them example 3 pg.131 and example 4 pg. 132

Explain them about both types of bar graphs horizontal and vertical bar graph.

### Task 18min

Exercise 9.2(Q1 till Q3) Children should read the data from bar chart and arrange the data in table and find answers of the given data

### H.W: Explanation (2min)

Children should do Q4 pg.136 in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## Lesson 3: Bar graph (bar chart)

**Objectives:** Draw horizontal and vertical bar graphs for given data and solve real life situations using data presented in bar graph

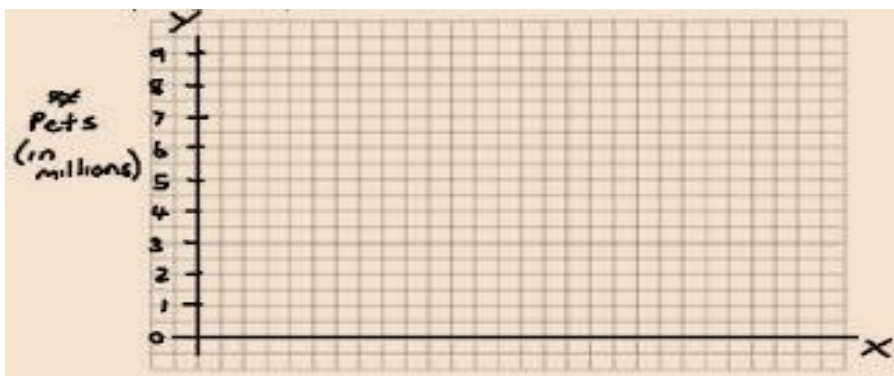
**Teaching Resources:** - Text book pg.133, 134 teacher's board, types of bar charts

### Introduction (5min)

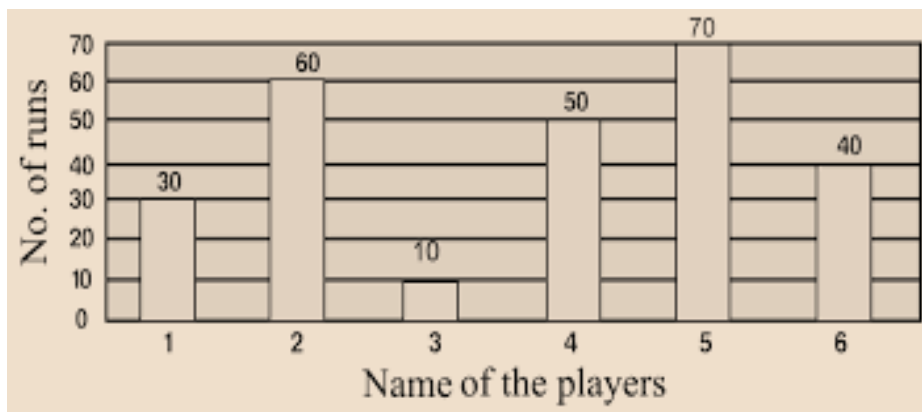
Show them the both types of bar graphs and discuss the data with them ask questions to find the data given in both graphs

### Teaching Procedure (20 min)

Tell children that we can draw bar graph on graph paper and use two axis to represent our data like x-axis horizontal line or base line and y axis vertical line



Then tell them the method how to draw bars by observing the given data.



Explain them example 5 pg.133 and example 6 pg. 134 .and discuss the real life examples like Businesses use both bar graphs and pie charts **to present information, such as sales information, to customers as well as to employees and other businesses.** People can also use bar graphs and pie charts for personal reasons, such as keeping track of finances.

#### Task 18min

Exercise 9.2(Q5) Children should draw a bar graph from the given data

#### H.W: Explanation (2min)

Children should do Q6 pg.137 in Home work

**Teachers' Assistance:** Teachers Resource book, learning well LMS, E-tutorial lessons.

## **Lesson 4: Review Exercise**

**Objectives:** Revise the concepts given about data and data handling concept

**Teaching Resources:** - Book pg. 137,138 teacher's board

### **Introduction (5min)**

Write questions on board and ask children to revise the taught concepts and discuss the answers in class.

### **Teaching Procedure (15min)**

Design a short test from the review exercises and ask students to solve independently .teacher will observe their working during class.

### **Task (20 min)**

Children will complete the given review Exercise question test.

Teacher will check their test in copies and give them feedback and identify their area of improvement.

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