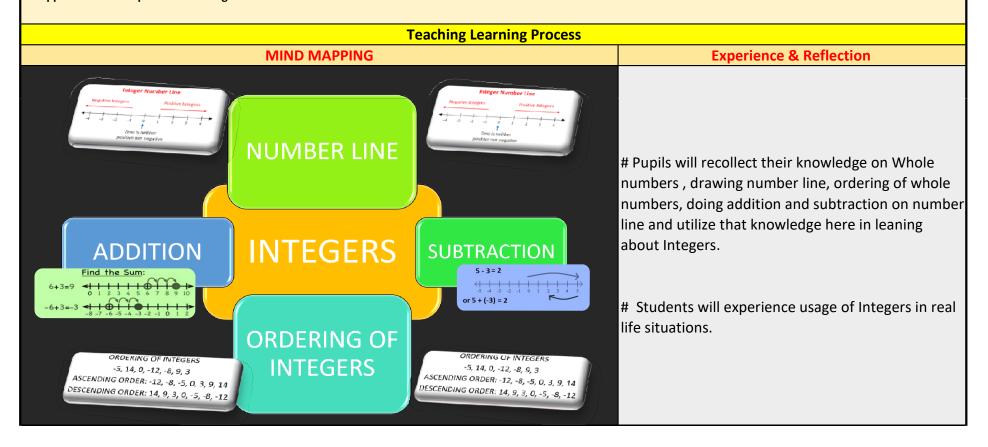
## **LESSON PLAN 6 CLASS: 6 TEACHER'S NAME:** Time line for **NO OF PERIODS REQUIRED SUB-TOPICS** teaching NAME OF THE UNIT **Teaching Practice** TOTAL To From 6.1 INTRODUCTION 6.1.1 TAG ME WITH A SIGN 2 3 5 6.2 INTEGERS 6.2.1 REPRESENTATION OF INTEGERS ON NUMBER LINE 6.2.2 ORDERING OF INTEGERS **INTEGERS** 6.3 ADDITION OF INTEGERS 2 3 5 6.3.1 ADDITION OF INTEGERS ON A NUMBER LINE 2 5 3 6.4 SUBTRACTION OF INTEGERS WITH THE HELP OF A NUMBER LINE 6 9 **15** TOTAL **KEY CONEPTS KEY VOCABULARY** # Natural Numbers # Whole Numbers Every Pupil is expected to have basic knowledge in # Greater than(>) # Positive Numbers # Natural Numbers and Whole Numbers # Less than (<) # Negative Numbers **PRE-REQUISITES** # representing natural and whole numbers on number line # Increase # Integers # ordering of whole numbers # Decrease # Representation # addition and subtraction of whole numbers on number line # Horizontal # Number line # four basic operations +,-,x,÷ # Additive Inverse # Ascending Order # Descending Order

## **Learning Outcomes**

After Completion of this lesson every student will be able to

- # recognize that positive numbers, zero and negative numbers collectively make integers
- # represent integers on number line
- # arrange given set of integers in both ascending and descending order
- # perform addition and subtraction of integers manually as well as on number line
- # appreciates the importance of integers in real life situations



TEACHING PERIOD: 1,2	INTRODUCTION, TAG ME WITH A SIGN, INTEGERS, REPRESENTATION OF INTEGERS ON NUMBER LINE, ORDERING OF INTEGERS		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY ( YOU DO )
KEY WORDS & PRE REQUISITES	Brain storming session invoving children with pre-requisites vocabulary and concepts related to previous knowledge. Introduction of new vocabulary and key words associated with the concept # Natural Numbers # Whole Numbers # Positive Numbers # Negative Numbers # Integers # Representation # Number line # Ascending Order # Descending Order # Greater than (>) # Less than (<)	* Students read the pre- requisites and answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
MIND MAPPING	Teacher writes the key word "INTEGERS" on the black board and will elict its other related words through questioning and will draw pupils' attention towards key concepts in the lesson	Hetrogeneous groups are created. One group will read the words and other will explain the meaning	Pupils individually read the keywords associated with knowing our numbers
CONCEPTUAL UNDERSTANDING	Teacher recalls children's knowledge on whole numbers where they have learnt and dealt with numbers from '0', their representation on number line, their ordering. Now teacher utilizes this knowledge of children here in exploring Integers.  Teacher introduces the concept of negative numbers first by quoting some real life examples like taking hand loan from some body, profit and loss, going down in a lift even below the ground floor to park a vehicle in a shopping mall etc., Further teacher explains that the value of each number will decrease when we move towards left and will increase when we move	Negative Integers  -4 -3 -2 -1  Zero is no positive nor	negative
LEARNING ACTIVITY	towards right as it does in the case of whole numbers Later teacher conducts an activity involving children in groups to arrange given integer on number line correctly and to arrange all the given integers in both ascending and descending order correcly. The group which does this arrangement correctly first will be the winner.	ORDERING -5, 14, 0, -, ASCENDING ORDER: - DESCENDING ORDER: 1	OF INTEGERS 12, -8, 9, 3 12, -8, -5, 0, 3, 9, 14 14, 9, 3, 0, -5, -8, -12
SUMMARY	Techer writes the summary and procedure adopted in representing integers on number line and ordering them and asks children to read write and note	pupils will note down and read in groups	every individual reads the summary and notes it down
ASSESSMENT	Teacher gives some questions under Try these section and exercise 6.1 and asks children to solve	every group will do the sums by discussion among each other	every individual solves the sums on their own

PRACTICE PERIOD: 1,2,3	INTRODUCTION, TAG ME WITH A SIGN, INTEGERS, REPRESENTATION OF INTEGERS ON NUMBER LINE, ORDERING OF INTEGERS		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY ( YOU DO )
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Natural Numbers # Whole Numbers # Positive Numbers # Negative Numbers # Integers # Representation # Number line # Ascending Order # Descending Order # Greater than (>) # Less than (<)	Whole class activity: one child comes to the board and reads the key words loudly and the remaining class follows.	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	-8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8  ASCENDIN	Each group will observe the similar lines and will frame some more by discussion  ORDERING OF INTEGER  -9, 4, 0, -2, -18, 21, -22  IG ORDER: -22, -18, -9, -2  IG ORDER: 21, 4, 0, -2, -9	2012
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and procedures and asks children to spell, read,note down and practice.	pupils will note down and read the summary in groups	every individual spells and reads the summary and notes it down
WRITING/ EDITING	Teacher gives some sums related to try these section and sums of exercise 6.1 and asks children to write them and checks the writings of children	One group will check the writings of the other and vice versa	Slow learners are focused and teacher will ascertain that every individual learns the concept

TEACHING PERIOD: 3,4	ADDITION OF INTEGERS, ADDITION OF INTEGERS ON A NUMBER LINE		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY ( YOU DO )
KEY WORDS	Brain storming session invoving children with key words # Addition # Addition on Number Line # Positive Integer # Negative Integer	* Students read the keywords answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
CONCEPTUAL UNDERSTANDING	Teacher illustrates the concept of addition of integers by utilizing their previous knowledge of adding whole numbers on number line. Teacher illustrates some exemplary additions of different types on the black board and explains that while adding integers one should keep a point in mind that if it is a +ve integer we are adding than we have to move towards the right of number line and if it is -ve integer than we have to move towards the left of number line.	Each group will understand the concept of different types of angles by discussion among themselves	, , , , , , , , , , , , , , , , , , ,
LEARNING ACTIVITY	Teacher now conducts an activity involving hetrogenous groups. Each group is given with different types of addtions like a +ve integer and a -ve integer, two -ve integers, two +ve integers etc., and will be asked to find the sum of all the given sets of integers on number line. The group that first does the sum correctly will be the winner.  Find the Sum: $6+3=9$ $6+3=3$ $6+$	Use a number line to help visualize the and the	
SUMMARY	Teacher once again writes important key words and procedures and asks children to note down and adopt.	Pupils will note down and read the summary in groups	Every individual reads the summary and notes it down and adopts the procedure
ASSESSMENT	Teacher gives some questions from Try These sections as well as sums of exercise 6.2 and asks children to solve those sums	Every group will do the sums by discussion among each other	Every individual solves the sums on their own

PRACTICE PERIODS: 4.5.6	ADDITION OF INTEGERS, ADDITION OF INTEGERS ON A NUMBER LINE		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY ( YOU DO )
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Addition # Addition on Number Line # Positive Integer # Negative Integer	Whole class activity: one child comes to the board and reads the key words loudly and the remaining class	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher will perform different additions on number line and asks children to do some more by watching similar lines	Each group will read the similar lines and will frame some more by discussion  +4 -5 -4 -3 -2 -1	Every Individual will do a few more by watcing similar lines
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and definitions and asks children to note down and adopt.	Pupil groups will read and adopt the procedure	Teacher focuses on every individual so that every child is able to perform different
WRITING/ EDITING	Teacher gives some questions from Exercise 6.2 and asks children to solve those sums and teacher checks the writings of children	One group will check the writings of the other and vice versa	types of addition of integers in successive upcoming practice sessions

TEACHING PERIOD : 5,6	SUBTRACTION OF INTEGERS WITH THE HELP OF A NUMBER LINE		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY ( YOU DO )
KEY WORDS	Brain storming session invoving children with key words # Subtraction # positive Integer # negative Integer # Increase # Decrease	* Students read the keywords answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
CONCEPTUAL UNDERSTANDING	Teacher demonstrates the concept of subtracting Integers with the help of number line and illustrates some examples. Teacher here draws the special attention of pupils towards the subtraction of a -ve integer from another -ve integer which looks different from other types of additions or subtractions. Teacher specially emphasizes the procedure to be followed while doing these type of subtraction and ascertains that every child is capable of doing these. Teacher conducts an activity involving hetrogeneous groups in which each group will be given different sets of subtraction sums and the group which does the sums correctly will be the winner	Each group will learn about the process of subtraction of integers through discussion	every child learns the concept through the learning acitivity.
LEARNING ACTIVITY	5 - 3 = 2 $(+ + + + + + + + + + + + + + + + + + +$	Subtraction o using Number + 2 - 4 - 3 (-2) - 1 0 + 1 (-4) - (-2) = (-4)	
SUMMARY	Teacher writes the key words and the procedure of subtraction and asks children to note down the summary and adopt	Pupils will note down and read the summary in groups	Every individual reads the summary and notes it down and adopts the procedure

ASSESSMENT	Teacher gives some questions from exercise 6.3 and asks children to solve those sums	Every group will do the sums by discussion among each other	Every individual solves the sums on their own
PRACTICE PERIODS: 7,8,9	SUBTRACTION OF INTEGERS WITH THE HELP OF A NUMBER LINE		
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY ( YOU DO)
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # Subtraction # positive Integer # negative Integer # Increase # Decrease	Whole class activity: one child comes to the board and reads the key words loudly and the remaining class follows.	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher will perform different subtractions on number line and asks children to do some more by watching similar lines  Find the Difference:  5-2-3  -3-2-1  (-5)-2-7  -8-7-6-5-4-3-2-1  0  1  2	Each group will read the similar lines and will frame some more by discussion	Every Individual will do a few more by watching similar lines
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and important summary of the concept learnt and asks children to note down and adopt.	Pupil groups will read and adopt the procedure	Teacher focuses on every individual so that each one
WRITING/ EDITING	Teacher gives some questions from Exercise 6.3 and asks children to solve those sums and teacher checks the writings of children	One group will check the writings of the other and vice versa	understands and utilizes the concepts in successive upcoming practice sessions