

SUBJECT : MATHEMATICS

CLASS : VI

TOPIC : INTEGERS

Pre-Content/Content/Post-Content	Learning Outcome/Objectives	
	General	Specific
<u>PRE-CONTENT</u> - Recall Number System - Realize the requirements of negative numbers <u>CONTENT</u> - Absolute Value - Comparing and Ordering Integers - Number line - Addition and Subtraction of Integers on the Number line - Operations on Integers - Addition - Subtraction - Brackets - Types and order of removal - Simplification <u>POST-CONTENT</u> - Application based problems	Students will be able to ✓ recall all the number systems ✓ identify the need of negative numbers ✓ find absolute value of a given integer ✓ compare and arrange integers ✓ locate integers on the number line ✓ apply operations on the number line ✓ apply different operations on integers ✓ simplify problems ✓ solve application based problems	Students will be able to ✓ recall number system ✓ visualize the requirement of negative numbers in view of real world ✓ find absolute value of given integers ✓ compare two integers and arrange integers in ascending or descending order ✓ represent integers on the number line ✓ learn to add and subtract on the number line ✓ apply different operations and simplify them ✓ solve the problems ✓ develop problem solving ability and solve real life problems

Home Work /Assignments:

1. NCERT exercise/solved examples given as home task.
2. Extra practice questions.

Teacher's Activity	Student's Activity	Teacher's Observation And Remedial
Teacher will help the students to recall various number systems by asking questions based on their previous knowledge. tell students about absolute value of any integer. explain how to compare two integers and arrange the integers in ascending and descending order on the ganit mala. show them the location of various integers on the number line. explain how to apply operations on integers and conduct the activity on subtraction of integers. (Annexure-6) give problems on simplification. give problems on application based questions.	Students will answer the questions asked by the teacher on various number systems. find the absolute value of a given integer. compare and arrange integers in ascending and descending order on the ganit mala. draw and locate integers on the number line using ganit mala and also do addition and subtraction on the number line. apply operations on integers and perform the activity as per the instructions given to subtract the integers and write their observations. (Annexure-6) solve those problems. simplify and solve application based problems.	Teacher will write his/her observations after the completion of the topic.

Teaching Aids: Smart board, ICR, Ganit mala.

Methodology/Innovative Methods: Discussion, Brain storming, Activity Oriented.

Interdisciplinary Links: Linked with Art, Real Life.

H.O.D.

Coordinator

Vice-Principal

Principal

Annexure-6

Subject	MATHEMATICS
Class	VI
Chapter/Unit	Integers
Topic	Subtraction of Integers
Time	30 minutes
Nature of Activity	Individual

What will I learn (Learning outcome)?

To perform subtraction on Integers.

Skills:- Performing, Psychomotor Coordination, Perceiving, Analyzing, Correlating

What I have to do?

To perform subtraction on Integers, say $(a - b)$, where a and b are integers.

What do I require?

Coloured papers, geometry box and adhesive.

What do I need to know?

Concept of Integers and Basic fundamental operations.

➤ **Teacher's Activity**

Teacher will enable the students to recall the concept of integers, basic fundamental operations and will explain the steps of the activity.

How will I proceed?➤ **Student's Activity**

- Let's solve a problem as $(-2) - (-5)$, where $a = -2$ and $b = -5$ are integers. {It is same as doing $-2 + (-5)$ }
- Make same sized squares of two different colours, say red and green.
- Denote red colour square with (-1) and green colour square with $(+1)$.
- To subtract -5 from -2 , take two red squares as shown in Fig.1.

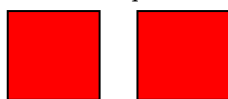


Fig.1

- Now, try to cross five red squares from it. But, there are only two red squares, so add three more red and to balance it, add three green squares also as shown in Fig.2.

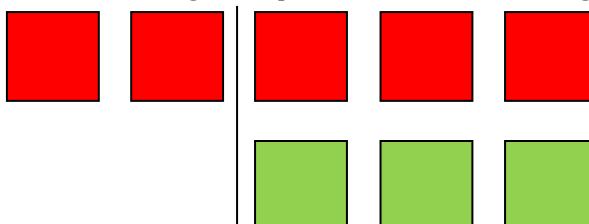


Fig.2

- Then, cross red squares from them and count the number of squares left along with their colour as shown in Fig.3.

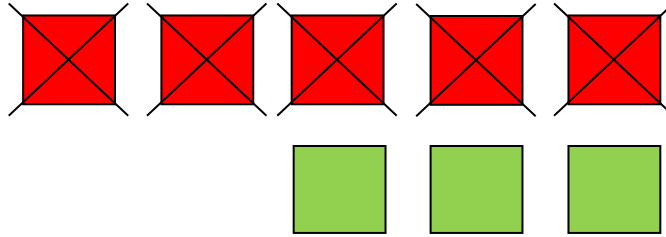


Fig.3

- There will be three green squares left as shown in Fig.4.



Fig.4

What have I observed?

Complete the following table:

a	b	a - b	Solution of a - b
-2	-5		

What have I learnt?

To perform _____ on Integers.

What am I curious to know?

Solve: $-6 - (-4)$ by activity method, where $a = -6$ and $b = -4$.

Let me evaluate myself

- Subtract the following:

(a) 17 from (-13)

(b) (-24) from (-35)

- The sum of two integers is -56. If one of the integers is -27, find the other.

- Find:

(a) $45 - (-16)$

(b) $(-20) - (-20)$

4. Fill in the blanks using appropriate sign:

(a) $(-28) - 39$ _____ $45 - 36$

(b) $60 - (-18)$ _____ $63 - (-19)$

(c) $(-30) - 6$ _____ $(-44) - (-10)$

(d) $55 - 55$ _____ $(-13) - (-13)$

5. A submarine was situated 800 feet the sea level. If it ascends 250 feet, what is its new position?
