

SUBJECT : MATHEMATICS

CLASS : VI

TOPIC : WHOLE NUMBERS

Pre-Content/ Content/ Post-Content	Learning Outcomes/Objectives	
	General	Specific
<u>PRE-CONTENT</u> - Large numbers <u>CONTENT</u> - Natural numbers - Introducing Zero (Whole numbers) - Successor and Predecessor - Properties of Whole numbers - Form different patterns <u>POST-CONTENT</u> - Application based problems	Students will be able to ✓ recollect large numbers ✓ retrieve natural numbers ✓ classify whole numbers ✓ recognize and represent successor and predecessor ✓ assimilate and distinguish between different properties of whole numbers and learn their application ✓ recognize and create different patterns on numbers ✓ solve application based problems	Students will be able to ✓ recall number system ✓ introduce natural numbers and justify their importance ✓ introduce whole numbers and justify their importance ✓ discover successor and predecessor of a given number ✓ apply and appraise about properties of whole numbers ✓ create different patterns ✓ 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.

MONTH : MAY'20
TIME : PRE-MID TERM

Teacher's Activity	Student's Activity	Teacher's Observations and Remedial
Teacher will ask few questions to recall large numbers. introduce natural numbers using ganitmala. appraise the method of finding successor and predecessor of a given number. take up various examples to explain all the properties of whole numbers. show different patterns and conduct the activity on patterns in whole numbers. (Annexure-2) give application based questions from the text book for practice.	Students will recollect large numbers and answer the questions. classify natural numbers through examples. find successor and predecessor of a given number. apply the properties of whole numbers and give more examples. create different patterns and perform the activity as per the instructions given to elaborate more on the patterns and write their observations. (Annexure-2) solve application based questions.	Teacher will write his/her observations after the completion of the topic.

Teaching Aids: Smart board, ICR, Number strips.

Methodology/Innovative Methods: Discussion, Brainstorming, Activity Oriented.

Interdisciplinary Links: Linked with Art, Real life.

H.O.D.

Coordinator

Vice-Principal

Principal

Annexure-2

Subject	MATHEMATICS
Class	VI
Chapter/Unit	Whole Numbers
Topic	Patterns In Whole Numbers
Time	30 minutes
Nature of Activity	Individual

What will I learn (Learning outcome)?

To demonstrate a (4 x 4) Magic Square.

Skills:- Problem Solving, Critical Thinking, Recognizing, Creating

What I have to do?

To demonstrate a (4 x 4) Magic Square by 'Cup Method'.

What do I require?

Number strips, (4 x 4) square and sketch pens.

What do I need to know?

Whole numbers, Natural numbers and Basic fundamental operations.

➤ **Teacher's Activity**

Teacher will enable the students to recall whole numbers, natural numbers, basic fundamental operations and will explain the steps of the activity.

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

- Take any set of 16 consecutive natural numbers, say 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.
- In the given (4 x 4) square, fill the first 8 cells with the numbers 3, 4, 5, 6, 7, 8, 9, 10 as shown in Fig.1.

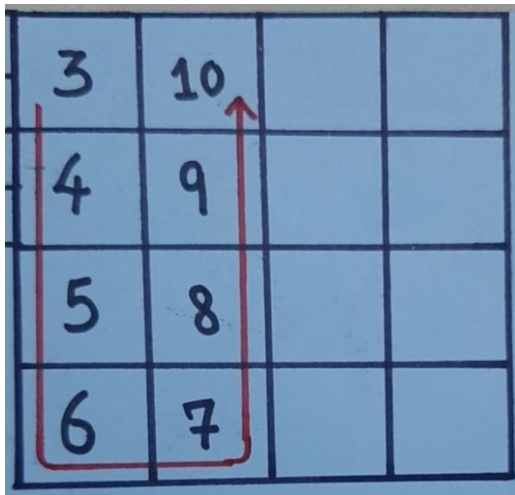


Fig.1 (It looks like an open cup)

- Now, fill the remaining 8 cells by the numbers 11, 12, 13, 14, 15, 16, 17, 18 as shown in Fig.2.

- | | | | |
|----|----|----|----|
| 3 | 10 | 14 | 15 |
| 16 | 13 | 9 | 4 |
| 17 | 12 | 8 | 5 |
| 6 | 7 | 11 | 18 |

- Now this number square has ‘Magic Properties’.

Complete the following table:

Sum of Numbers									
Row				Column				Diagonal	
1	2	3	4	1	2	3	4	1	2

What have I learnt?

To demonstrate a _____ Magic Square.

What am I curious to know?

Create a (5 x 5) Magic Square by 'Cup Method'.

Let me evaluate myself

1. Is this a (4 x 4) magic square? If yes, find the magic number.

16	3	2	13
5	2	11	8
9	6	7	12
4	15	14	1

2. Name the given magic square which was named after a famous Mathematician.

22	12	18	87
88	17	9	25
10	24	89	16
19	83	23	11

3. Create your own (3 x 3) magic square.

4. In a magic square, each row, column and diagonal add up to the same total. Fill in the missing numbers in the given magic square, where sum is 12:

	8	1
2		6
7	0	

5. Is this a (3 x 3) magic square of Prime numbers? Justify.

23	11	3
17	19	5
2	13	59
