

SUBJECT : MATHEMATICS**CLASS : VI****TOPIC : PLAYING WITH NUMBERS**

Pre-Content / Content / Post-Content	Learning Outcomes/Objectives	
	General	Specific
<u>PRE-CONTENT</u> Meaning of Factor and Multiple	Students will be able to	Students will be able to
<u>CONTENT</u> - Factor - Common Factor - Highest Common Factor - Mutiple - Common Multiples - Lowest Common Multiple - Even and Odd numbers - Prime and Composite numbers - Tests of Divisibility - Prime Factorisation Method	✓ recollect factors and multiples of a number ✓ investigate the factors of a number and define its properties ✓ determine the common factors of given numbers ✓ master the method of finding highest common factor of given numbers ✓ investigate the multiples of a given number and define its properties ✓ determine the common multiples of given numbers ✓ master the method of finding lowest common multiple of given numbers ✓ distinguish between odd and even numbers ✓ distinguish between prime and composite numbers ✓ apply rules of divisibility tests on different large numbers ✓ establish the method of prime factorization of given numbers	✓ establish the meaning of factor and multiple and differentiate between them ✓ create factors of a given number and define its properties ✓ identify common factors of given numbers ✓ discover the H.C.F of given numbers ✓ create multiples of a given number and define its properties ✓ identify common multiples of given numbers ✓ discover the L.C.M. of given numbers ✓ recognize odd and even numbers and differentiate between them ✓ recognize prime and composite numbers and differentiate between them ✓ master various rules of divisibility and apply them ✓ find the prime factorisation of given numbers
<u>POST-CONTENT</u> Apply H.C.F. and L.C.M. to real life problems	✓ apply the method of Prime factorisation to find H.C.F. and L.C.M. of different numbers ✓ apply Prime factorisation and H.C.F and L.C.M to real life problems	✓ simplify and find the H.C.F. and L.C.M. of numbers ✓ apply the same to the problem sums

Home Work /Assignments:

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

MONTH : JULY'20**TIME : MID TERM**

Teacher's Activity	Student's Activity	Teacher's Observations and Remedial
Teacher will ask questions based on their previous knowledge to recall factor and multiple. conduct the activity to find the factors of a given number. (Annexure-3) explain how to find common factors of given numbers. demonstrate different methods to find H.C.F. of given numbers. take up few examples to explain multiples of a given number. explain how to find common multiples of given numbers. demonstrate different methods to find L.C.M. of given numbers. give examples to distinguish between odd and even numbers. take up few examples to distinguish between prime and composite numbers. introduce rules for divisibility tests of given numbers. demonstrate the method to find the prime factorization of a given numbers.	Students will answer the questions asked by the teacher on factors and multiples. perform the activity as per the instructions given, to find the factors of a given number and write their observations. (Annexure-3) understand and find common factors of given numbers. apply different methods and find H.C.F. of given numbers. follow and find multiples of a given number. understand and find multiples of given numbers. apply different methods and find L.C.M. of given numbers. identify and distinguish between odd and even numbers. identify and distinguish between prime and composite numbers. recognize and apply the various rules for divisibility tests. understand the method and solve the textbook questions.	Teacher will write his/her observations after the completion of the topic.

Teaching Aids: Smart board, ICR, Stones/beads.**Methodology/Innovative Methods:** Discussion, Brainstorming, Activity Oriented.**Interdisciplinary Links:** Linked with Art, Real life.

H.O.D.

Coordinator

Vice-Principal

Principal

Annexure-3

Subject	MATHEMATICS
Class	VI
Chapter/Unit	Playing With Numbers
Topic	Factors
Time	30 minutes
Nature of Activity	Individual

What will I learn (Learning outcome)?

To find the factors of a given number.

Skills:- Creating , Visualizing, Assimilating, Identifying

What I have to do?

To find the factors of a given number by activity method.

What do I require?

Buttons, paper and pencil/pen.

What do I need to know?

Multiplication facts

➤ **Teacher's Activity**

Teacher will discuss about multiplication facts and will explain the steps of the activity.

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

- Take a sufficient number of buttons (say 15) and try to arrange them in rows in such a way that each row has the same number of buttons.
- Arrange the buttons in one row as shown in Fig.1.



Fig.1

- Since, no such arrangement would be possible to place same number of buttons in two rows, so, arrange the buttons in three rows as shown in Fig.2.



Fig.2

- Similarly, no such arrangement would be possible to place same number of buttons in four rows, so, arrange the buttons in five rows as shown in Fig.3.

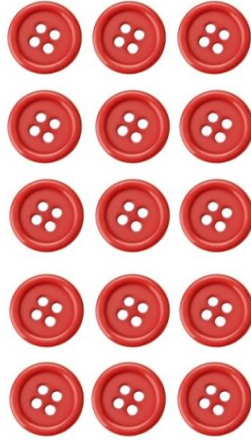


Fig.3

- Continue the process and the only possible arrangement left was to place the buttons in fifteen rows as shown in Fig.4.



Fig.4

What have I observed?

Complete the following table:

Number	Rows (R)	Columns (C)	(R X C)	Factors

What have I learnt?

To find the _____ of a given number.

What am I curious to know?

Find all the factors of 60 using beads or stones.

Let me evaluate myself

1. Which factor is common to all the numbers?

2. Find each missing factor:

- (a) _____ x 8 = 24
 (b) 4 x 9 = _____ x 6
 (c) 7 x _____ = 8
 (d) 3 x 15 = 5 x _____
 (e) _____ x 50 = 100

3. Write all the factors of the following numbers:

- (a) 18 _____
 (b) 35 _____
 (c) 42 _____
 (d) 75 _____
 (e) 100 _____

4. Find the sum of all the factors of 48.

5. Which number has both 6 and 9 as factors?
