

SUBJECT: MATHEMATICSLESSON PLANTOPIC: FUN WITH GIVE AND TAKECHAPTER NO : 6

<u>PRE CONTENT / CONTENT / POST CONTENT</u>	<u>LEARNING OUTCOME / OBJECTIVES</u>	
	<u>GENERAL</u>	<u>SPECIFIC</u>
<u>PRE-CONTENT</u> - Previous knowledge of students will be tested by giving few problems of subtraction of 2 and 3-digit numbers. <u>CONTENT</u> - Subtraction of 3 -digit numbers in vertical column without and with regrouping. - Checking subtraction by addition - Missing addends - Word problems on subtraction. <u>POST CONTENT</u> - Magic Square 3×3	Students will be able to :- recall basic subtraction of 1 and 2-digit numbers. subtract numbers without and with regrouping. recognize the terms minuend and subtrahend observe the pattern to find the missing number. critically analyze and solve word problems construct and comprehend word problem relate addition and subtraction in daily life problems.	Students will be able to :- recollect and perform subtraction algorithm of 1 and 2-digit numbers. arrange 3- digit numbers in vertical column according to places. apply addition to check subtraction perform mental calculations compute, apply and solve word problems. apply properties of subtraction in daily life. develop problem solving attitude.

Home Work / Assignments

- Problems from Math Magic.

<u>TEACHER'S ACTIVITY</u>	<u>STUDENT'S ACTIVITY</u>	<u>TEACHER'S OBSERVATION & REMEDIAL</u>
Teacher will demonstrate the algorithm to help in recalling the method. demonstrate the algorithm subtracting 3 –digit numbers vertically. demonstrate how to check the difference obtained using addition. relate addition and subtraction to compute the missing numbers in the problems. Also play the game of ‘Let’s Deliver Letters’ . facilitate students in solving word problems based on subtraction of numbers from the textbook. <u>ANNEXURE 6</u> conduct an activity to strengthen their calculating skills mentally and construct a magic square where the sum of each row, each column and each diagonal remains same.	Students will apply and solve the problems given by the teacher in their notebooks. solve the problems given in the book pg-77 to 81. assimilate the concept to check their subtraction and complete the questions given in the textbook pg – 82 & 83. apply addition and subtraction to find the missing numbers and complete the patterns given in NCERT book Pg – 85 & 86. apply and solve the problems given in notebook pg no -87 to 90. <u>ANNEXURE 6</u> participate in the activity enthusiastically and perform mathematically operation to construct their magic square in the notebook.	Teacher will write his/her observations after the completion of the topic/s.

Teaching aids – Flash cards (0 to 9 digits), Smart Board, Internet, Textbook- Math Magic.

Methodology– Deductive Method,. Peer learning, learning by doing(activity method) and Digital Technology.

Interdisciplinary Links – Team work , Decision making skills and Application of subtraction in daily life.

ANNEXURE 6**FUN WITH GIVE AND TAKE**

SUBJECT	MATHEMATICS
CLASS	III
CHAPTER/UNIT	FUN WITH GIVE AND TAKE
TOPIC	3 × 3 MAGIC SQUARE
TIME	30 MINUTES
NATURE OF ACTIVITY	INDIVIDUAL

What will I learn(Learning Outcome)?

The students will be able to construct a 3×3 magic square with a magic sum of 15.

Skills: Analyzing , Creating , Critical and Analytical Thinking.

What I have to do?

To create a magic square of 3×3 with a magic sum of 15.

What do I require?

A4 size white sheet, sketch pens, pencil, ruler and eraser.

What do I need to know?

Simple addition

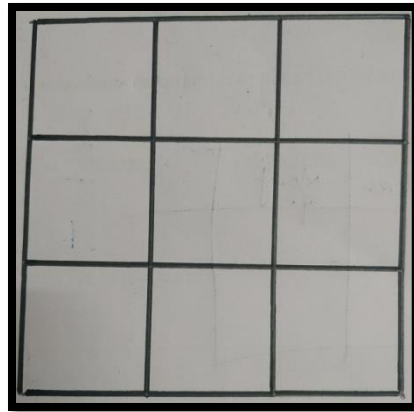
➤ Teacher's Activity:

The teacher will demonstrate on the board why and how the sum of each row , each column and each diagonal will come up to be 15 if we use numbers from 1 to 9 in the following way :

- Write numbers from 1 to 9.
- Take the centre number i.e. .
- Multiply it by 5 i.e. $3 \times 5 = 15$.
- This will be the constant sum when we arrange numbers in the magic square using numbers from 1 to 9.

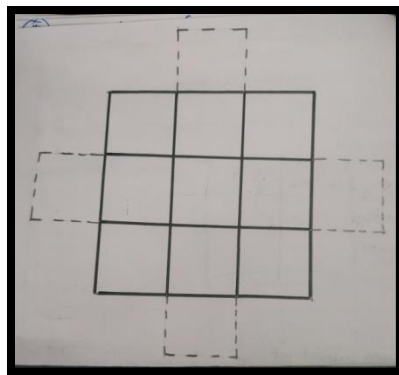
How will I proceed ?**➤ Student's Activity :**

1) Take a white A4 size sheet and make a 3×3 square grid on it as shown in Fig.1 below.



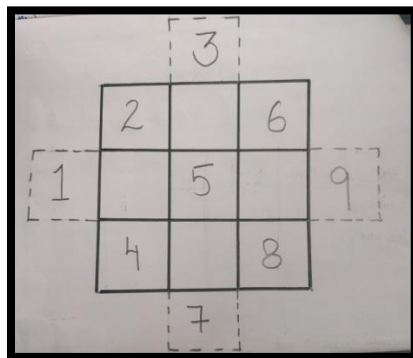
(Fig.1)

2) Extend the grid with dotted lines such that they form four squares as shown in the Fig.2 .



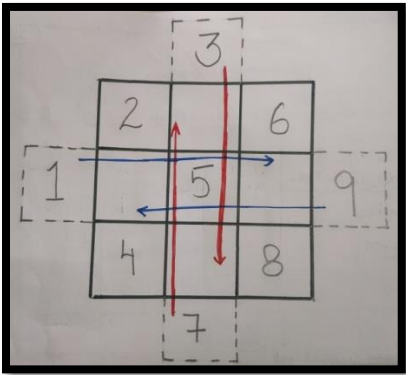
(Fig. 2)

3) Write numbers from 1 to 9 such as (1,2,3) make one set and (4,5,6) forms second set , (7,8,9) the third set and then arrange them as shown in Fig.3.



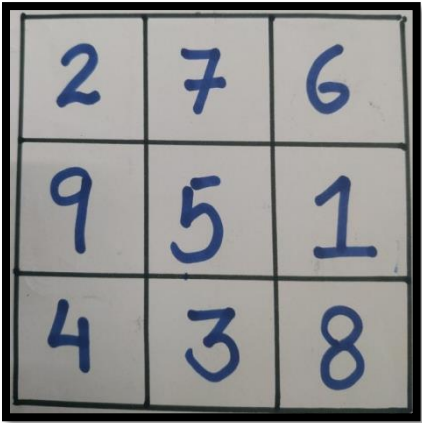
(Fig.3)

4) Now write the numbers written outside as shown by the arrows in Fig. 4 .



(Fig.4)

5) Erase the squares drawn outside and obtain the magic square as shown in Fig.4.



(Fig.5)

6)Find the sum of each row, each column and diagonal and record the observation in the table.

What have I observed ?

	<u>NUMBERS</u>			<u>SUM</u>
<u>ROW 1</u>				
<u>ROW 2</u>				
<u>ROW3</u>				
<u>COLUMN 1</u>				
<u>COLUMN 2</u>				
<u>COLUMN 3</u>				
<u>DIAGONAL 1</u>				
<u>DIAGONAL 2</u>				

Is the sum obtained same in all the cases? _____ (Yes/ No)

What have I learnt?

The sum of each row, each column and diagonal remains the same i.e. 15(constant) in a 3×3 magic square.

What am I curious to know?

Can I make another 3×3 magic square using 2 digit numbers to get the sum as 51 in each row, each column and diagonal ?

Let me evaluate myself

Q1) In a magic square , each row , each column and diagonal add up to the same sum. Can you fill in the missing numbers in these magic squares?

(1) The sum is 15.

	7	6
9	5	
4		8

(2) The sum is 12.

	8	1
2		6
7	0	

(3) The sum is 15.

8	1	
	5	7
4		2

(4) The sum is 12.

3		
8		0
	6	5

Q2) Verify that the figure given below is a magic square. Also find its magic constant.

16	11	18
17	15	13
12	19	14

	<u>NUMBERS</u>			<u>SUM</u>
<u>ROW 1</u>				
<u>ROW 2</u>				
<u>ROW3</u>				
<u>COLUMN 1</u>				
<u>COLUMN 2</u>				
<u>COLUMN 3</u>				
<u>DIAGONAL 1</u>				
<u>DIAGONAL 2</u>				