Way to multiplication

CBSE Maths, Class – V, Unit - 13

Different ways of multiplication

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Prior knowledge

- Place value of numbers. Able to write a given number in expanded form

- Knows multiplication table and have basic understanding about the concept of multiplication

- Multiplies two digit number by another two digit number using grid method

Objective

- Appreciates the role of place value in multiplication algorithms.

- Explains the meaning of factors and multiples.

- Understanding multiplication in area methods

Engage

Activity 1: Bus Game

We can conduct this game with the whole class. Teacher asks students to sit in a circle and start counting 1, 2, 3, and so on and then continue saying out the numbers aloud. and choose any number from 2-9. For example if a student choose 5, when 5 and multiples of 5, 5, 10, 15, 20, 25, 30, come, the student should say bus instead of that number and play this game. If they forget to say bus or they say bus for any other number than they should start from beginning.

Activity 2: Here teacher can use the worksheet below i.e. two digit number multiplied by a single number to engage, here it could be a small group activity. Students can solve this worksheet with a group of 4-5 students. So it will help them to recall multiplication methods as well as grid

LO: To multiply two digit numbers using the grid method.

1. 43 × 5 =		
×	40	3
5		

2. 54 × 6 =		
×	50	4
6		

3. 53 × 7 =		
×	50	3
7		

4. 49 × 3		
×	40	9
3		

5. 86 × 5 =		
×	80	6
5		

6. 47 × 5 =		
×	40	7
5		

7. 48 × 4 =		
×	40	8
4		

8. 65 × 3 =		
×	60	5
3		

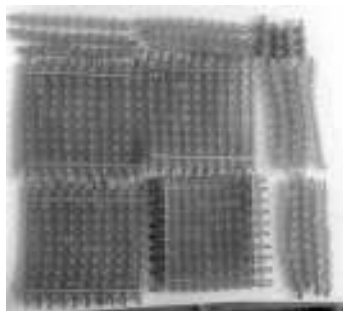methods which they learnt in fourth standard.

Explore

Activity1: In this stage teacher asks students to choose any two digit number and multiply by
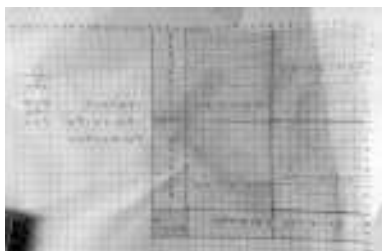
another two digit number in grid method.

After this method, teacher can ask students to do the same problem to find the answer using concrete materials like place value blocks, area method and also in Standard Algorithm method. Teacher should ask students to solve this problem in groups, as it will help them to get clarity and enable peer learning to happen.

concrete method

area method

standard method

this example was done by a student

These three methods will help students to understand multiplication in a different way. Here students will learn,

- Mental Strategies to help rearrange and regroup numbers for finding product, helps to derive unknown facts from the known facts.

Explain

Here teacher starts discussion with students to get know what students have understood in multiplication methods in engage and explore activities , so teachers can ask questions to students, like, where and how they found the answer and which method was easy etc. Then based on the discussion teacher will explain the concept, particularly teacher should give importance for the third method where students should multiply first by units and then tens as shown in the picture

Elaborate

Activity 1: Teacher can give a few word problems and ask them to visually represent and solve the problem. For example, a father is buying 12 mangoes per day. How many mangoes would he have bought in 20 days. Children can visualise it any way and solve the problem.

For example student may come up like this "12 mango X 20 days = 240" which is the standard methods or student could draw picture in their note book to visualize / solve this problem, At this stage teacher can give a few problem like this to do algorithm for word problem

Activity 2: Teacher gives a problem to solve in different methods for example, there maybe four methods but teacher could give one method. For example in this worksheet, teacher gives a problem with answer for any one method and ask students to come up in other three methods, Teacher could prepare similar problems and a few more in flash cards/worksheet.

Concrete Materials	Grid method	Area methods	Standard Algorithm

Worksheet: all method together

EVALUATE

Worksheet 1: Teacher could use this worksheet to assess student understanding as given in this worksheet.

Multiply the two numbers using the method in the first question as an example.

24 x 61 =

x	60	1
20	1200	20
4	240	4

```
  1200
    20
   240
 +   4
 ─────
  1464
```

65 x 31 =

x

86 x 52 =

x

83 x 61 =

x

79 x 40 =

x

78 x 42 =

x

51 x 17 =

x

34 x 64 =

x

17 x 36 =

x

70 x 69 =

x

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