Teaching Sequence for

Teaching Factors and Multiples

Title:
Teaching sequence for teaching factors and multiples

Overview/ Annotations:
The suggested teaching sequence logically develops the concepts of factors of a number, prime number, multiples and introduces to the concept of LCM & HCF.
The sequence suggests a number of activities and games that will help the students understand the concepts better and will be fun to learn.

Primary learning objectives:
At the end of this activity the students would have understood the concept of factors of a number, what is a prime number and idea about LCM and HCF

The Sequence :
1. Putting the concept of factors using the language of numbers
2. Prime factors and revision of concept of a prime number
3. Game activity to practice finding factors
4. Solving numerical examples
5. Solving puzzles based on factors.
6. Introducing concept of LCM and HCF

Material Required : 25-27 unifix blocks per group, NovaVia's Factors & Multiple game set.

Details :

1. Introduction to concept of factors

Activity :
Give each student 12 unifix blocks. Ask them to make (filled) rectangles using all the blocks. Draw the pictures of rectangles done by students. Students may do rectangles 6x2, 4x3, 1x12
Remind students that a rectangle implies multiplication and write down equations
    12 = 1x 12
    12 = 2x6
    12 = 6x2
    12 = 3x4
    12 = 4x3
Ask students if it is possible to express 12 in any other manner
    12 = 2x2x3
Ask student to make a cuboid representing 2x2x3.
Explain that 2,3,6 are all factors of 12.

Repeat the exercise with 24, 27, 18, 25 blocks.

2. Putting the concept of factors using the language of numbers

Give more examples to find factors and solve in the notebook.

3. Prime factors and revision of concept of a prime number
Discuss prime factors
Play a game of finding at least one factor of given number orally

4. Relation between factors and multiple

Ask students to recount even numbers, may be using table of 2 but need to go beyond 10.
 Pick any of these numbers and ask students to find at least 2 factors (this is a mental activity, should not use paper and pencil).
Repeat the exercise with multiples of 3, 5, 7, 8, 9 etc
Till students understand the relation between factors and multiples.
Also you can hint at divisibility rules (help students discover divisibility rules if not already done in the class .. but this should not digress the main topic too much)

5. Game activity to practice finding factors

Play the game 'Factors and Multiple' by NovaVia..

6. Solving numerical examples
Give some numerical examples with 2 and 3 digit numbers to find factors. If you can give some puzzles based on finding factors it will be good.

7. Introducing concept of LCM and HCF
Introduce the concept of LCM and HCF by giving some examples. It will be better if you revise and start with numbers that student have already found factors of in earlier exercises.