

numbers may be from 7 to 18, and afterwards from 13 to 24.

In a mixed school, where the classes are small, it will be better to put two or more classes together, than to have the class too small.

After a time the pupils may number by twos forwards and backwards, commencing with 2 at first, then with 1, and after that with any other number. This may be done with the pupils in a straight line, the pupil at the top of the class following the pupil at the bottom through any number of rounds.

To number by threes, the pupils may stand in three ranks, numbers 1, 4, 7, 10 stepping forward two paces, numbers 2, 5, 8, 11 stepping forward one pace, and numbers 3, 6, 9, 12 remaining at the first position, thus :

	2	3		6		9		12
1		4	5		7	8		10

If found more convenient, all the pupils may step forward one pace, then, 1, 4, 7 and 10 may step forward one pace more, 3, 6, 9 and 12 one pace to the rear, and 2, 5, 8 and 11 remain in position. The word of command will vary to suit the three Nos. 2, 5, 8 and 11 being called the Middle Rank. The position of the pupils should be changed from day to day so that the same pupil may not constantly have the same number. Higher numbers may be taken after a time as in the case of numbering by twos, after which the numbering by threes may be done by the pupils standing in a straight line. At first take the numbers 3, 6, 9, 12, &c., then 1, 4, 7, 10, &c., then 2, 5, 8, 11, &c., after which they may number backwards commencing with any number named by the teacher.

To number by fours it will be merely necessary for the pupils to stand in a straight line. Take the numbers 4, 8, 12, 16, &c., at first, and number forwards and backwards. Then take 1, 5, 9, 13, &c., then, 2, 6, 10, 14, &c.,

then, 3, 7, 11, 15, &c. The higher numbers may be dealt with in the same way.

As soon as pupils are expert in adding by twos they may be taught Addition on slates with ones and twos. The exercise in Mental Arithmetic with threes may then be taken, and after that Addition on slates with figures 1, 2 and 3. Proceed with the other numbers up to 9, paying particular attention to Addition, that is adding or numbering forwards. When the pupils come to Subtraction on slates more attention should be paid to numbering backwards, that is Subtraction. Numbering by elevens and twelves may be taken when pupils come to Multiplication. Numbering by numbers higher than 12 may be taken occasionally while pupils are in Compound Rules, so that by the time they come to Greatest Common Measure and Least Common Multiple they may be familiar with the measures of all numbers they have to deal with.

#### EXERCISE VIII.

##### Multiplication.

Let the pupils stand on the floor in a straight line and number first by ones and then by twos. Each pupil will have two numbers, thus :

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24

Each pupil may then say both numbers in succession thus 1, 2 ; 2, 4 ; 3, 6 ; &c., forwards and backwards. The first pupil may then say twice 1 are 2 ; the second pupil twice 2 are 4 ; and so on, each pupil keeping to his own numbers. When they are expert in saying this both forwards and backwards, the teacher may put the questions promiscuously, requiring the proper pupil to give the answer. The position of the pupils should be changed from time to time, so that each pupil may learn the whole of the table.

Proceed in the same manner with the other tables.