fore, if I am asked the fives in 17, I substitute for the number 15 and 2; if I am asked the fours in 17, I substitute 16 and 1; if I am asked the sevens, I substitute 14 and 3, and so on. Substituting one term for another is the essence of much mathematical thinking.

And so a good order of presentation of numbers from 11 to 20 is to proceed just as with numbers below 10, following any order with each number that may seem to be fairly exhaustive. For example, 12 may be considered as made up of additions of smaller numbers. This may lead to 11 and 1, 10 and 2, 9 and 3, and so on. The subtraction is another form of this relation. Then will come the divisions which are naturally related to additions and subtractions. How many 11's in 12; how many 10's, etc.? When it comes to sixes, fours, threes and twos, there will be extended drill, because the fractional idea is made prominent. Thus, how many fours in 12? 4 is what part of 12? Two fours are what part of 12? What is two-thirds of 12? From 11 take away two-thirds of 12, and so on.

Now, this plan, if worked out thoroughly and carefully, will answer quite as well as any other, for it includes all that is necessary, and emphasizes the fact that pupils must **think** their way to the solution of problems. Yet the teacher need not use such a plan. She may follow the plan used in the first ten numbers. The number 16 will be treated just as the number 6, being measured by the numbers below it one by one. Thus: 16 is 15 and how many? 15 and 1 is how many? How many 15's in 16? and so on. Then will follow 16 in relation to 14, 13, 12 in succession. Whatever method is used, two or three things are important. First of all the endings should be thoroughly known. In other words, the addition table should be thoroughly mastered. When a pupil finds that 4 and 3 make 7, and that 14 and 3 make 17, he should be drilled on this until he knows it without thought. The way to drill is not to have pupils repeat the sounds 4 and 3 make 7 over and over again. Familiarity comes through use—through repetition of thought rather than repetition of sound. In the second place, the facts of the multiplication table should be thoroughly known and used to the full in discovering other truths. Nothing is more important than this. If a pupil has discovered that three fives are 15, he shall be drilled on this fact through use until he will never forget the combination, and he should use his knowledge freely in discovering the threes or fives in 16 or 17 or 18. In the third place, the work in practical problems should be continued, and especially should there be exercises in all forms of practical measurement. And, as said before, the problems of the school should have as close relation as possible to the problems of life.

Now, during this stage, it is possible that a little board work may be done. No harm will come from working with figures if the class work in number is still the important thing in teaching. But nothing is much worse than for children to spend hours in copying long columns such as $15+?=18$; $16\div3=?$; $?\times4=12$.

It is not possible within the limits of a single paper to enter upon a discussion of the method of dealing with numbers from 21 to 100.

DRAWING OUTLINE

Grades VII and VIII

Use 9″x12″ paper except where otherwise directed. A booklet of drawings to be made during the year. See that name, school and grade appear upon lower left-hand corner of each sheet.

Practice—Color-Schemes. Aim: to show pleasing color combinations and their application.

Practise making color schemes according to the following plan: Upon 6″x9″ manilla paper arrange three oblongs 2″x4″. In each of these plan three small shapes, circles, squares, triangles, etc. Color the oblongs with greyed tints of any standard colors, leaving the small shapes blank. In these small shapes make pleasing color