

Number and Operations in Base Ten

In Kindergarten, children explore numbers from 11 to 19 by composing and decomposing them into 10 ones and some further ones using manipulatives to model problems. They record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$). Children in Kindergarten understand that these numbers are composed of 10 ones and one, two, three, four, five, six, seven, eight, or nine ones.

Keeping each count as a single unit, Kindergarteners use 10 objects to represent “10” rather than creating a “ten.” They do not work with “bundles” of tens until first grade. Children in Kindergarten explore addition and subtraction by joining and separating objects. The writing and reading of addition and subtraction equations is encouraged, but it is not required at this level.

The Kindergarten Common Core State Standards for Number and Operations in Base Ten specify that children should—

- Work with numbers 11–19 to gain foundations for place value.

The following hands-on activities give children opportunities to develop their understanding of the operations of addition and subtraction. Mathematically proficient children in Kindergarten begin to explore real-world problems using a variety of manipulatives and day-to-day situations to model such problems. Additionally, Kindergarteners express their mathematical reasoning using words. As their mathematical vocabulary increases with problem-solving opportunities, they become more precise in their explanations and computations.