

## Understanding Base Ten and Using it to Add and Subtract

### **Kindergarten**

Work with numbers 11-19 to gain foundations for place value- Compose and decompose numbers from 11-19 into tens and ones by using objects or drawings.

### **First Grade**

Understand place value- understand that the two digits represent amounts of tens and ones (understand “bundles”)

Use place value understanding to add and subtract using concrete drawings or model (within 100, including a 2-digit and 1-digit number).

### **Second Grade**

Understand place value- understand that the three digits represent amounts of hundreds, tens, and ones.

Use place value understanding and properties to add and subtract (add and subtract within 1000 using models or drawings)

hundreds	tens	ones	

## **Base Ten in Grades 3-5**

### **Grade 3**

Place value is involved in day-to-day instruction in 3rd grade. We are working on using number lines as a tool to round up to the nearest 10 & 100, using partial sums strategies that rely on place value understanding to solve 2- and 3-digit addition and subtraction problems within 1000, and use place value understanding to multiply one digit whole numbers by multiples of 10.

### **Grade 4**

Fourth grade focuses on reading, writing, and comparing two (or more) multi-digit numbers up to the millions place. They begin building generalizations based on place value understanding for multi-digit whole numbers, such as the multiplicative relationship of one place value to another. Place value understanding continues to be applied in rounding numbers as well as multi-digit arithmetic. Fluency in addition and subtraction of multi-digit numbers is expected. As the year progresses, they will be finding whole number quotients and remainders with up to four-digit dividends and one-digit divisors using strategies based on place value.

### **Grade 5**

Fifth grade focuses on solidifying place value understanding to round numbers and perform multi-digit arithmetic using standard algorithm. They are beginning to explore powers of ten and how it relates to decimal fractions. As the year progresses, they will be doing more work around decimals: reading, writing, comparing and rounding decimals up to the thousandths place and perform operations with multi-digit whole numbers and decimals up to the hundredths place.