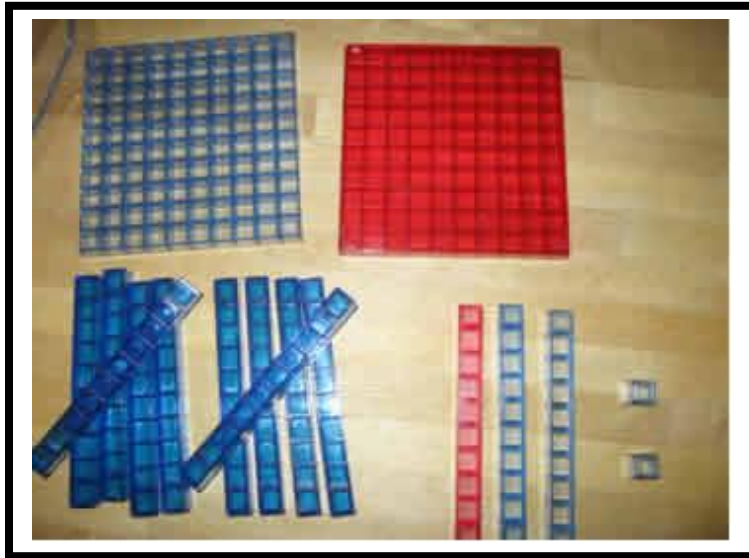**NUMBER SENSE builds as <u>Students</u> decompose number. They need to build, explain and represent what they see**.

Personal Strategies for mentally adding and subtracting come from multiple experiences with taking apart and putting together numbers.
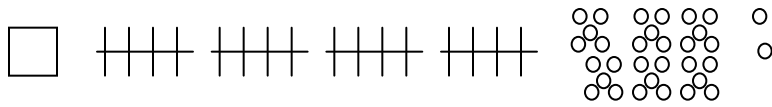

Two hundreds
13 tens
2 ones

332

One hundreds
20 tens
32 ones

332

Students who can flexibly decompose numbers are more likely to develop personal strategies for adding and subtracting that make sense to them.

**How could you represent this picture without blocks?**

□ ╫╫╫ ╫╫╫ ╫╫╫ ╫╫╫   ⊙⊙ ⊙⊙ ⊙⊙   ○
                        ⊙⊙⊙ ⊙⊙⊙ ⊙⊙⊙   ○
                        ⊙⊙ ⊙⊙ ⊙⊙

$1.00 and 20 dimes and 32 pennies
$3.00 + .32 = $3.32

One hundred plus twenty tens plus thrity two ones
100 + 200 + 32 = 332

One hundred, nineteen tens tens, forty ones
What would this look like?

No matter how you represent the number in our base ten system your only choice for writing it as a number or in numerals is 332.

The most efficient way to group it is:
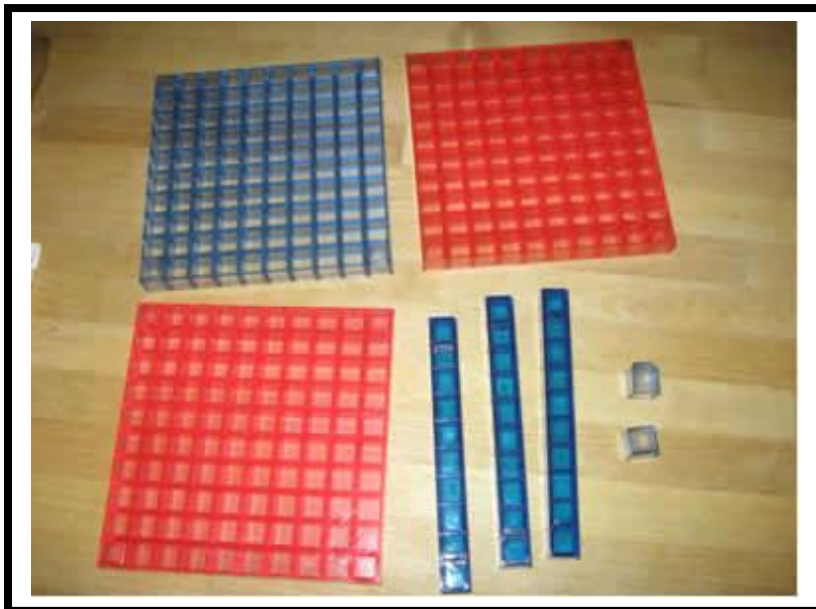
3 hundreds
3 tens
2 ones

300 + 30 + 2

300   **332**
 30
+ 2

But seeing only this grouping does not allow students to build strategies for thinking about how to break apart and put together numbers in their heads.