CHAPTER 1
Addition and Subtraction Within 1,00

Lesson 1.1 Algebra Number Patterns

Pattern-an ordered set of numbers or objects.

Identity Property of Addition- states that the sum of any number and zero is that number.

Ex: 7+0=7

Even and Odd Rules

- Even +Even = Even   Ex: 4+2=6
- Odd + Even = Odd   Ex: 4+3=7
- Odd + Odd= Even   Ex: 5+3=8

Commutative Property of Addition- states that you can add two or more numbers in any order and get the same sum.

3+4=4+3

Lesson 1.2 Round to the Nearest Ten or Hundred

Round- to find a number that tells you about how much or how many.

Hints for rounding
- 5 or more let it soar
- 4 or less let it rest.

Round to the nearest Ten	Round to the nearest Hundred
136→ 140	623→ 600

Lesson 1.3 Estimate Sums

Estimate- a number close to an exact amount.

Compatible numbers- numbers that are easy to compute mentally and are close to the real number.

There are two ways to estimate in this lesson: students can choose which to use, unless specified.

1. Using **compatible numbers**: remember compatible numbers are numbers that are easy to compute so there are several possibilities depending on what the student thinks is **easy**.

Ex: 432 -→ 425
+489   +475
            900

I chose these numbers because they are close to the exact amount and they are easier to add.

Another Possibility:

 432--→ 430
+489   +490
             920

TIP: The closer you can get to the exact amount when coming up with your compatible numbers the better your estimate will be.

2. Using **rounding**: this seems to be the most popular way with the students since we rounded in the previous lesson. I mentioned to the students that they can choose what they would like to round to since it is just an estimate and we are not specifically mentioning what place to round to.

Ex: 304 -→ 300
 +494   +500
               800

Another Possibility:

 304--→ 300
+494   +490
             790

Lesson 1.4 Mental Math Strategies for Addition

There are two Strategies for adding using mental math:

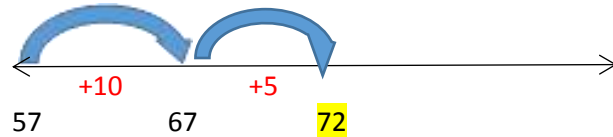**1.** Count by tens and ones, I also use the term **break apart into tens and ones.**

Ex: 57+15

I told the students that they can choose which number to break apart but for consistency purposes I said to break apart the smaller number. So in this case the 15 will be broken apart into 10 and 5.

57+15

10 ∧ 5

Now it is easier to add 57+10 +5.

+10   +5

57   67   72

2. Use **compatible numbers.**

Ex: 178+227

Step 1: Break Apart the addends to make them compatible.

Think: 178= 175+3   175 and 225 are compatible
227= 225+2

Step 2: is to find the sums.

178-→   175 + 3
+227-→   225 + 2
400 +5