FACTORS of TEN

Foundation for mental math and figuring higher and lower combinations.

This one simple number line is building a versatile pattern knowledge of base 10 combinations that can provide extensive support to mental math development. (Singapore Math)

(Colors of the rainbow add some color and interest to the math. Use crayons or colored pencils to make rainbow arches from one of the factors to the other and through its' corresponding color (zero to underline RED to ten, etc.). Roy G. Biv represents the colors of the rainbow from the outer to the inner arches. Note: Indigo makes a small arch over the five and violet is a dot in the rectangle under the number five where the index fingers move back and forth.)

RED

ORANGE

YELLOW

GREEN

BLUE

INDIGO

VIOLET

0 1 2 3 4 5 6 7 8 9 10

Addition Facts for 10

Part 1:

Left index finger is placed on zero/Right index finger is placed on 10.

Learner says, "Zero plus ten equals ten."

Then the index fingers are moved to one and nine.

Learner says, "One plus nine equals ten."

This pattern repeats one fact pair at a time until both fingers are on five.

Learner says, "Five plus five equals ten."

Then, start moving the fingers back out, one pair at a time, until reach zero and ten.

Part 2:

Left and right index fingers in the same starting position.

Begin with the number at the right index finger.

Learner says, "Ten plus zero equals ten."

Then move the fingers to nine and one.

Learner says, "Nine plus one equals ten."

Continue until both fingers are on five.

The learner will be able to do this with their eyes closed while performing the finger positions and then orally (eyes closed) without the finger movements. The last step is with eyes open and no finger movements with facts given in both directions. Now, you may put the combinations on flash cards showing both forms (1+9 then 9+1 underneath each other on one flash card). First, show them in order. Then, mix them up. Last, make a set of flash cards with only one combination on each (12 cards total). Student should become able to just look at the card and give the answer. If not, go back to closed eye practice.

Also, you may cover one number of the combination and ask, "How many more are needed to equal 10?" (___ + 8 = 10 or 8 + ___ = 10) and so on.

Using items (pencils, spoons, popsicle sticks, etc.) to do this: Lay out ten objects in front of the student. Move one to the right or left and ask them to read the combination, "9 + 1 = 10 or 1 + 9 = 10. Move another object to reflect 8 + 2 = 10 or 2 + 8 = 10 and so on. At 5 + 5 = 10 keep moving the items in the same direction so that the combination is either 6 + 4 = 10 or 4 + 6 = 10 and so on.

A Rainbow of 10's Combinations

RED

ORANGE

YELLOW

GREEN

BLUE

INDIGO

VIOLET

0 1 2 3 4 5 6 7 8 9 10