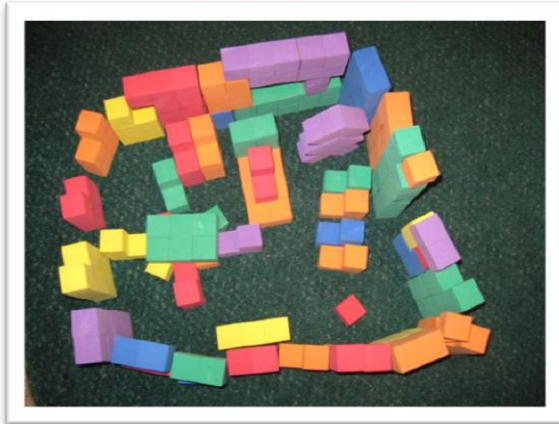# 4-group Number Blocks

One set contains 30 blocks, in the primary and secondary colors. Each number comes in various colors so that children recognize a 4-group Number Pattern by its shape and not by its color.

Store the blocks where your child can play with them alone or with friends. Block play builds children's problem solving and spatial skills, as well as their imaginations and creativity.
The child's job is to experiment and create using her own ideas.

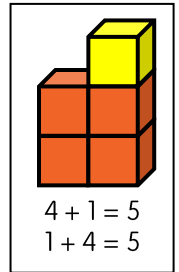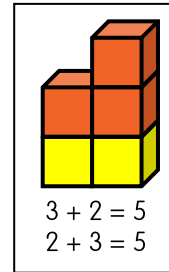The parent's job is to use *Math Talk* with the children:

- **Use number words:**
  "I see you used a two block for the wheels of your car."
  "There are no more fours, might a three and a one work?"
  "Let's count how many blocks you used in your tower."
- **Use position words** such as; in, out, above, under, next to, behind, in front of.
  "I see you have an 8-block under your tower."
  "Could you please hand me the 3-block next to you."
- **Use comparison words** such as; more, less, the same, different, bigger, smaller, taller, shorter.
  "Which of your blocks is taller?"
  "Who has more?" "Who has less?"
- **Ask open-ended questions**:
  "How did you get the big block to stay on top?"
  "What might happen if you….?"
  Do not ask, *"What is it?"* Instead, say, *"Tell me about…."*
- **Describe what you see**:
  "Your train has more cars than the one you built before."
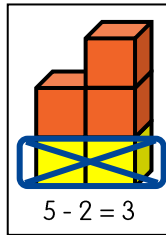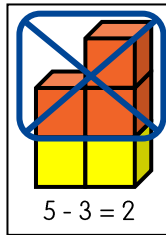 *"You built a taller tower this time."*

Addition and Subtraction with 4-group Number Blocks

To be successful in future mathematics and to find mathematics *easy and fun,* children must have <u>rapid</u> recall and know with <u>accuracy</u> and <u>confidence</u> their basic addition and subtraction facts.
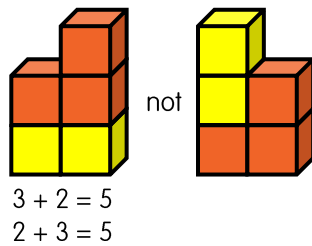
The 4-group Number Patterns are unique in that they are summative.
They fit together to form the 4-group Number Pattern for their sum.
For example, a 3-pattern and a 2-pattern combine to make the 5-pattern while the 4-pattern and 1-pattern combine to make the same 5-pattern.
This allows you to add the <u>whole</u> 4-group Number Patterns together.

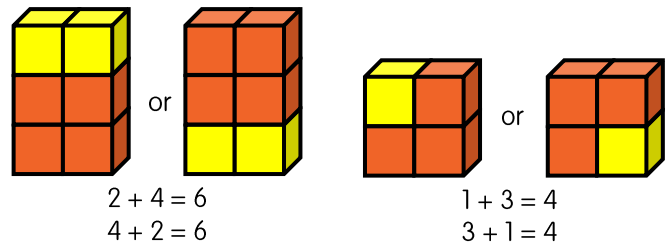3 + 2 = 5
2 + 3 = 5

4 + 1 = 5
1 + 4 = 5

The 4-group Number Patterns are also unique in that subtraction is modeled as the exact opposite of addition.
Take away the <u>whole</u> 4-group Number Pattern.

5 - 3 = 2

5 - 2 = 3

Note that when an odd and an even 4-group Number Pattern combine, the even pattern goes on the bottom to maintain its integrity.
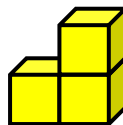
not

3 + 2 = 5
2 + 3 = 5

When two even or two odd number patterns combine, either can be on top.

or

2 + 4 = 6
4 + 2 = 6

or

1 + 3 = 4
3 + 1 = 4

Use the 4-group Number Blocks to tell story problems:

Addition:

Three ducks are swimming in the pond.
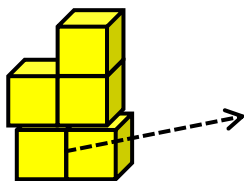
Two more ducks come to swim.   **How many ducks in all?**

Subtraction:

Five ducks are swimming in the pond.

Two ducks swim away.   **How many ducks are left?**