

# Master the 4-group Number Patterns 5, 6, and 7

4-group Math™ is a visual and kinesthetic method designed to develop number sense and fact fluency. It uses a unique set of number patterns to make math easy and fun.

For more information visit our website at [4groupmath.com](http://4groupmath.com).

**Lynn Kuske, M.Ed.**



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# Introduction to 4-group Math

Mission statement: Creating a new generation of kids who love math.

To be successful in mathematics children must have **rapid** recall and know with **accuracy** and **confidence** their addition and subtraction facts.

## Subitizing

The science behind 4-group Math is called *subitizing* (pronounced *sue-bi-tie-zing*): the brain's **rapid**, **accurate** and **confident** judgment of the quantity of a set of objects without counting.

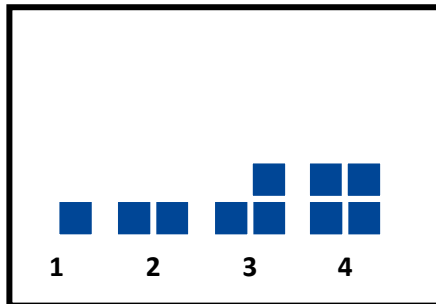
Young children can *subitize* a set of four objects when those objects are arranged in a square pattern.



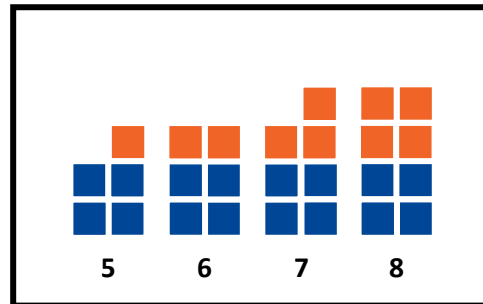
4-group Math, a visual and tactile model, uses this innate ability as an anchor to conceptualize the quantity of numbers.

## The 4-group Number Patterns

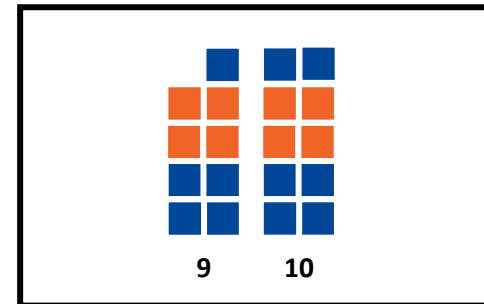
The 4-group Number Patterns 1-4 are easy to see and *subitize*.



1, 2, 3, & 4 are attached to another 4-pattern to create 5, 6, 7 and 8.

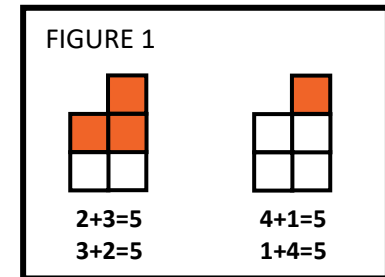


The 1- and 2- patterns are attached to the 8-pattern to create 9 and 10.

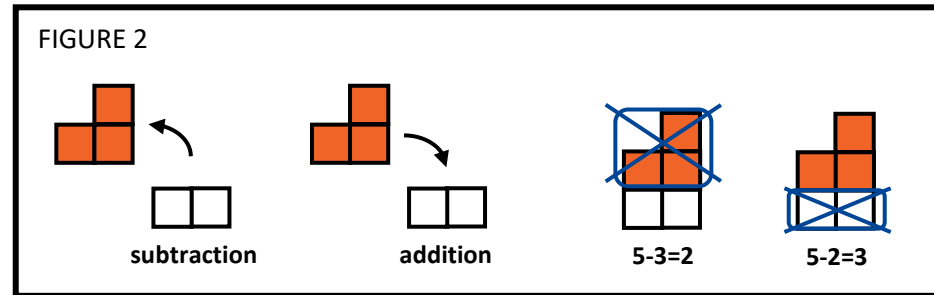


# Addition and Subtraction

The 4-group Number Patterns are unique in that they are summative. They fit together like a puzzle 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. (FIGURE 1)



The 4-group Number Patterns are unique in that subtraction is modeled as the exact opposite of addition. (FIGURE 2)



## 4-group Math Counting Order

4-group Math uses a unique counting order that starts at the bottom and counts up from right to left. We have found that children who count in this manner, make fewer mistakes in their counting.

We build the number patterns starting at the bottom and going up: right, left; right, left.

(10) (9)  
 (8) (7)  
 (6) (5)  
 (4) (3)  
 (2) (1)

Children can stop their counting at any time and see the 4-group Number Pattern for the quantity.

1      2      3      4      5  
 •      •      •      •      •  
          •      •      •      •  
          •      •      •      •

When we add we regroup to the left.

$$\begin{array}{r} 1 \leftarrow \\ 2 \quad 8 \\ + 3 \quad 4 \\ \hline 2 \end{array}$$

We build right to left because numbers get bigger as the digits move to the left. For example, when 9 becomes a 10, the group moves left into the tens place.

1      0      0      9

# Activity 1 – Building the Number Patterns Directions

**OBJECTIVE:** Build and recite the 4-group Number Patterns for 5, 6, and 7  
*Five is four and one more, six is four and two more, and seven is four and three more*

**MATERIALS:** 4-group Number Blocks: one 1-block, one 2-block, one 3-block, and three 4-blocks  
Worksheet for 5, 6 and 7

**GROUP:** Independent, 1 on 1, or small group

**DIRECTIONS:** Build the block combinations to show the 4-group Number Patterns for 5, 6, and 7.  
Use two colors of blocks for each pattern. (FIGURE 1)  
Then, cover up the numbers and Point and Say each pattern to a friend.  
Circle the whole number pattern with your finger and say its number. (FIGURE 2)  
Point to the four and say, “is four.” Point to the “extras” and say, “and \_\_\_\_ more.” (FIGURE 3)  
One example is shown.  
Use the language, “Five is four and one more.” “Six is four and two more.” “Seven is four and three more.”  
When you complete this activity, put a sticker in the Sticker space.

FIGURE 1

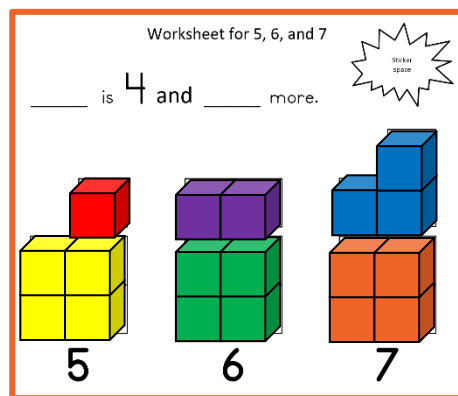


FIGURE 2

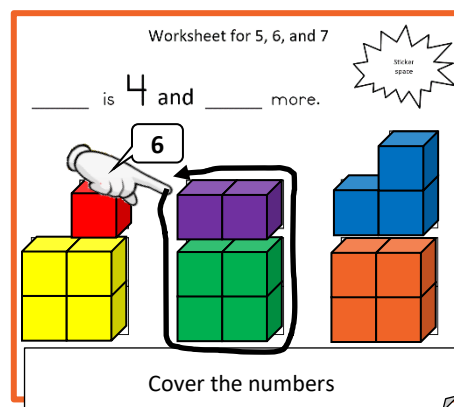
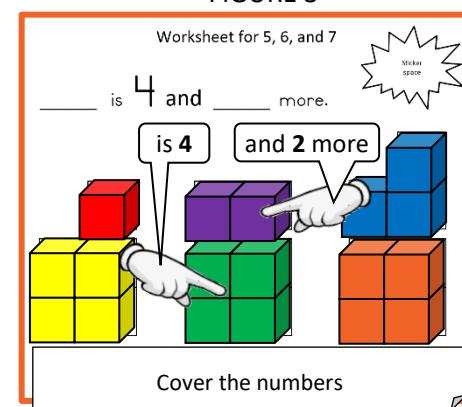
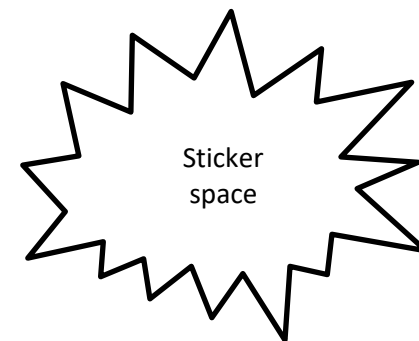


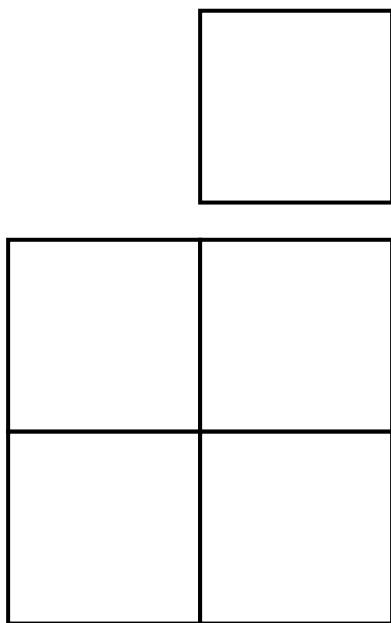
FIGURE 3



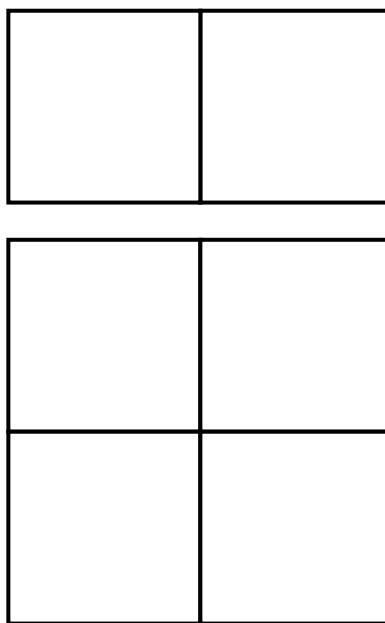
# Worksheet for 5, 6, and 7



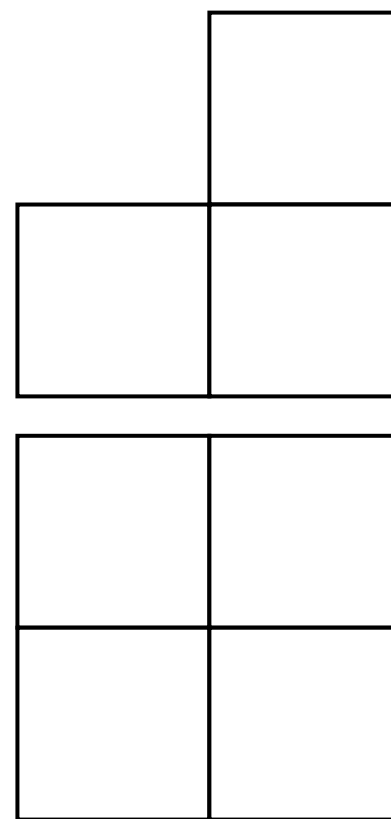
\_\_\_\_\_ is **4** and \_\_\_\_\_ more.



**5**



**6**



**7**

# Activity 2 – Coloring the Number Patterns Directions

**OBJECTIVE:** Color and recite the 4-group Number Patterns for 5, 6, and 7  
*Five is four and one more, six is four and two more, and seven is four and three more*

**MATERIALS:** Two colors of crayons, markers, stamps, or dot art  
 Pencil  
 Worksheet for 5, 6, and 7

**GROUP:** Independent, 1 on 1, or small group

**DIRECTIONS:** Color to show the 4-group Number Patterns for 5, 6, and 7.  
 Use two colors for each pattern. (FIGURE 1)  
 In pencil, write over each number after you finish its picture. (FIGURE 2)  
 Then, cover up the numbers and Point and Say each pattern to a friend. (FIGURE 3)  
 Circle the whole number pattern with your finger and say its number.  
 Point to the four and say, “is four.” Point to the “extras” and say, “and \_\_\_\_ more.”  
 Use the language, “Five is four and one more.” “Six is four and two more.” “Seven is four and three more.”  
 When you complete this activity, put a sticker in the Sticker space.

FIGURE 1

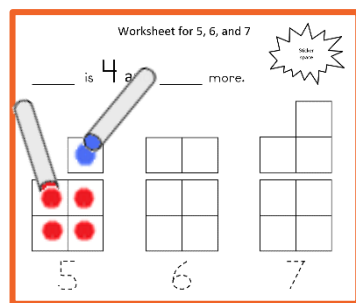


FIGURE 2

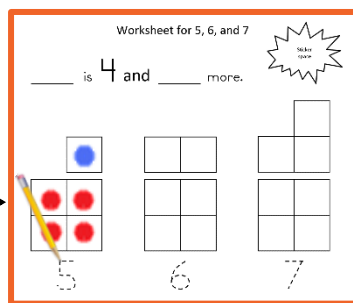


FIGURE 1

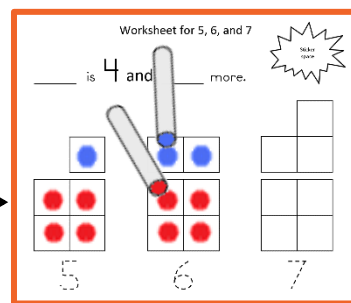


FIGURE 2

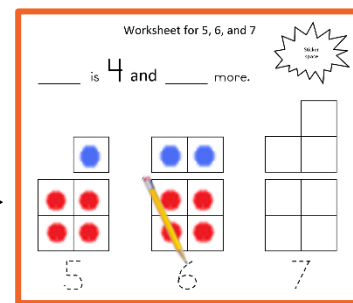


FIGURE 1

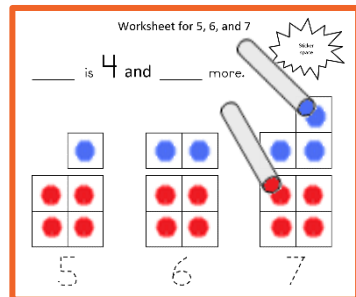


FIGURE 2

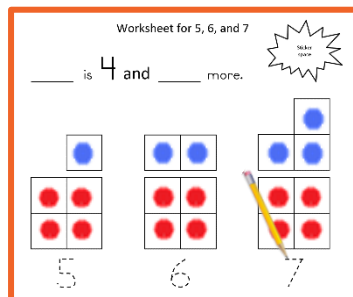
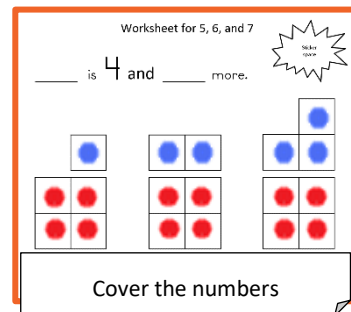


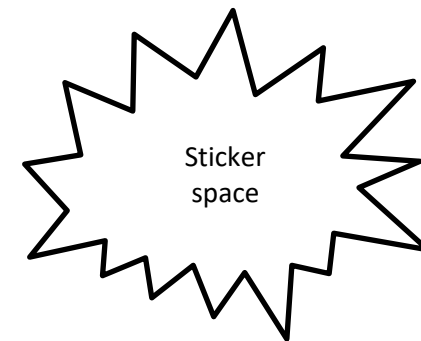
FIGURE 3



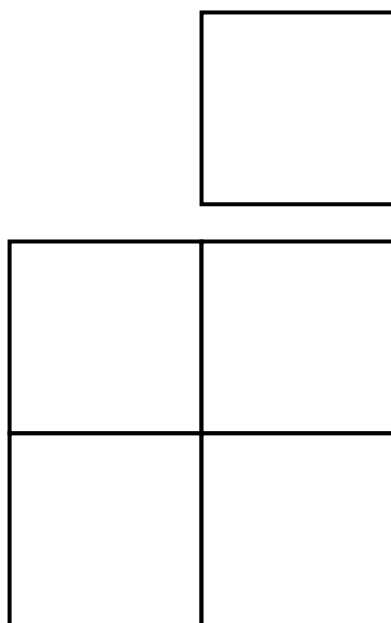
Point and Say:  
**Five is four and one more.**  
**Six is four and two more.**  
**Seven is four and three more.**



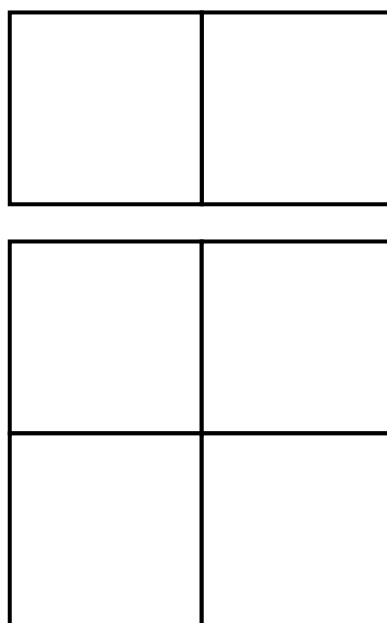
# Worksheet for 5, 6, and 7



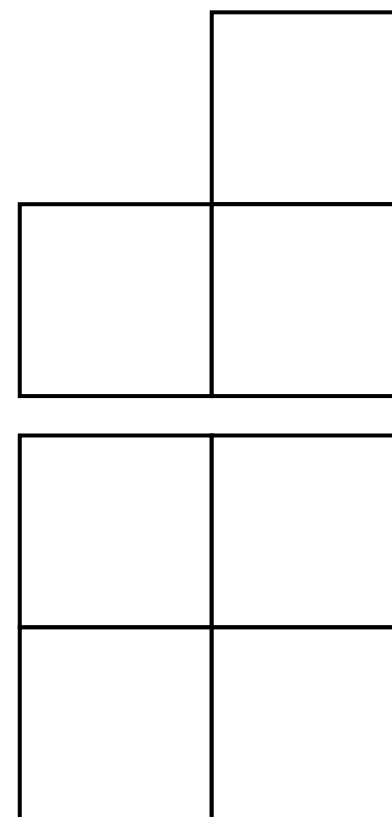
\_\_\_\_\_ is **4** and \_\_\_\_\_ more.



5



6



7

# Activity 3 – 4-group Playing Cards for 5, 6, and 7

**OBJECTIVE:** Use a 4-card and one other card to make the 4-group Number Patterns for 5, 6, and 7  
 Recite the 4-group Number Patterns for 5, 6, and 7  
*Five is four and one more, six is four and two more, and seven is four and three more*

**MATERIALS:** One deck of 4-group Math Playing Cards; use one 1-card, one 2-card, one 3-card, three 4-cards, one 5-card, one 6-card, and one 7-card. The shapes on the cards do not matter.

**GROUP:** Independent, 1 on 1, or small group

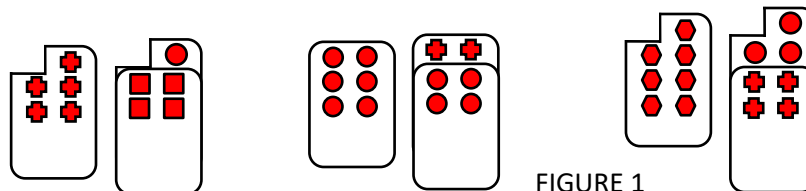
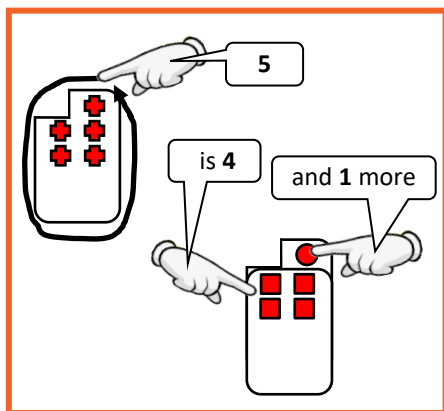


FIGURE 1

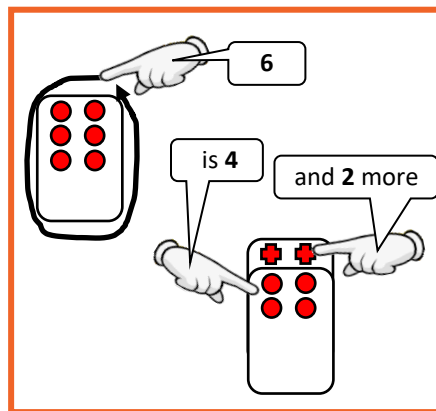
**DIRECTIONS:** Lay the 5, 6 and 7 cards face up on the table.  
 Next to each of these cards build its number pattern with a 4-card and one other card. (FIGURE 1)  
 Then, Point and Say each pattern to a friend. (FIGURE 2) Two examples are shown.  
 Circle the whole number pattern with your finger and say its number.  
 Point to the four and say, “is four.” Point to the “extras” and say, “and \_\_\_\_ more.”  
 Use the language, “Five is four and one more.” “Six is four and two more.” “Seven is four and three more.”  
 When you complete this activity, put a sticker in the Sticker space.

FIGURE 2

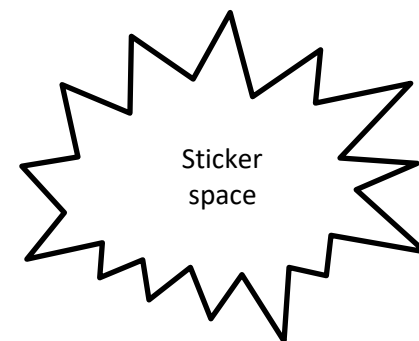


Point and Say  
**Five**  
 is four  
 and one more.

FIGURE 2



Point and Say  
**Six**  
 is four  
 and two more.





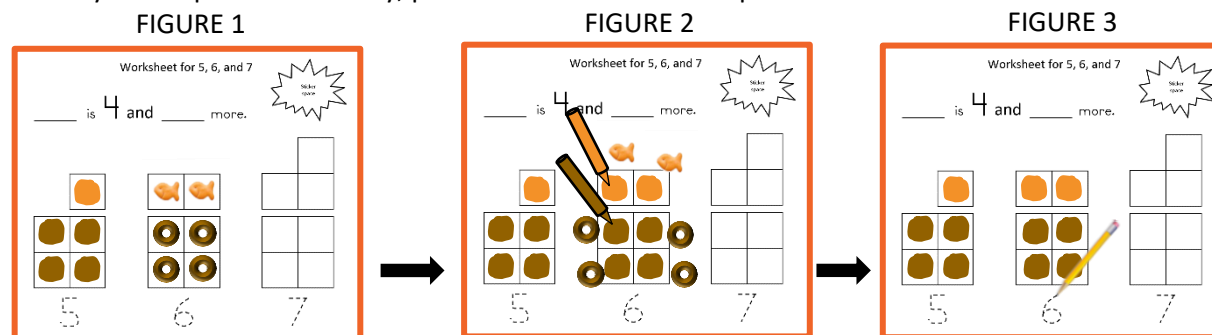
# Activity 4 – Build & Color the Number Patterns Directions

**OBJECTIVE:** Build, color and recite the 4-group Number Patterns for 5, 6, and 7  
*Five is four and one more, six is four and two more, and seven is four and three more*

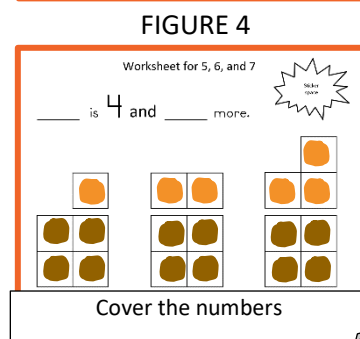
**MATERIALS:** Two colors of a small manipulative; cubes, buttons, candies, crackers  
 Two crayons or markers to match the manipulatives' colors. Pencil  
 Worksheet for 5, 6, and 7

**GROUP:** Independent, 1 on 1, or small group

**DIRECTIONS:** Build with the manipulatives to show the 4-group Number Patterns for 5, 6, and 7.  
 Use two colors for each set of partners. (FIGURE 1)  
 Then, push the items off each square as you record your work with the same color crayon. (FIGURE 2)  
 In pencil, write over each number after you finish its picture. (FIGURE 3)  
 Then, cover up the numbers and Point and Say each pattern to a friend. (FIGURE 4)  
 Circle the whole number pattern with your finger and say its number.  
 Point to the four and say, "is four." Point to the "extras" and say, "and \_\_\_\_ more."  
 Use the language, "Five is four and one more." "Six is four and two more." "Seven is four and three more."  
 When you complete this activity, put a sticker in the Sticker space.

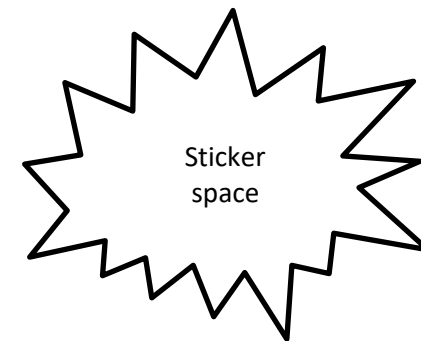


(One example is shown.)

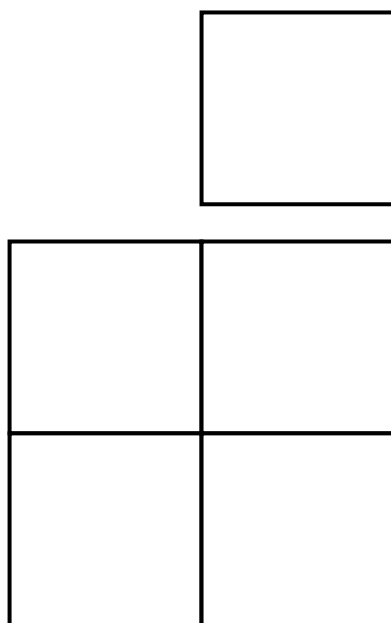


**Point and Say:**  
**Five is four and one more.**  
**Six is four and two more.**  
**Seven is four and three more.**

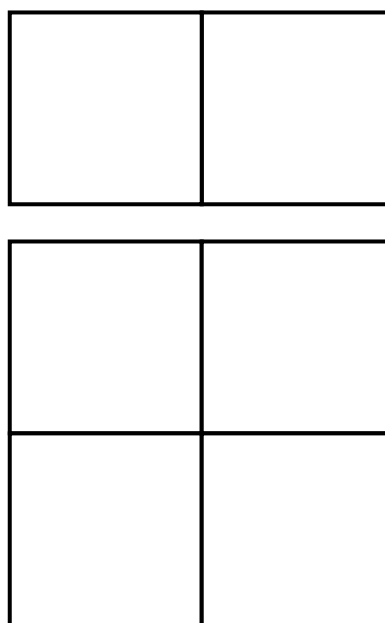
# Worksheet for 5, 6, and 7



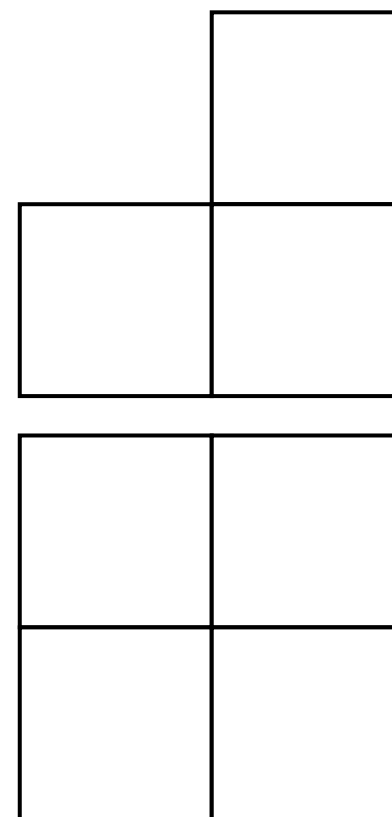
\_\_\_\_\_ is **4** and \_\_\_\_\_ more.



5



6



7

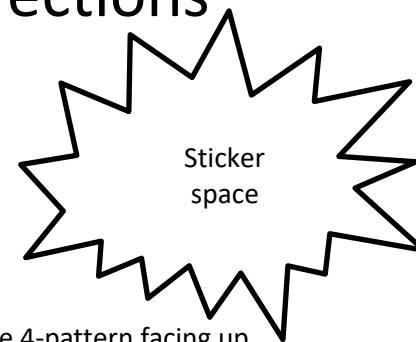
# Activity 5 –Flip Cards for 5, 6, and 7 Directions

**OBJECTIVE:** Say the missing number to make 5, 6, and 7  
*Five is four and one more, six is four and two more, and seven is four and three more*

**MATERIALS:** Activity 5 – Flip Cards for 5, 6, and 7

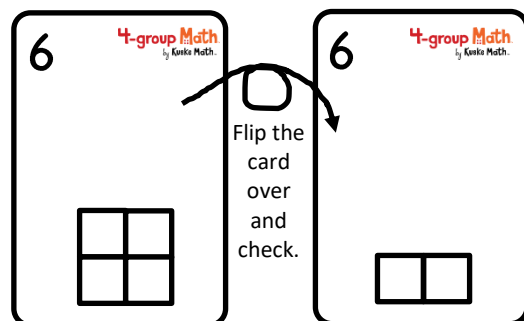
**GROUP:** Independent, 1 on 1, or small group

**DIRECTIONS:** Cut out the three cards on the following page. Lay the cards on the table in any order with the 4-pattern facing up.  
Look at one card. Say the number that is missing to make the number shown in the corner.  
Flip the card over and check your answer. Continue for all the cards.  
Continue until you give the correct answer for each card.  
When you complete this activity, put a sticker in the Sticker space.



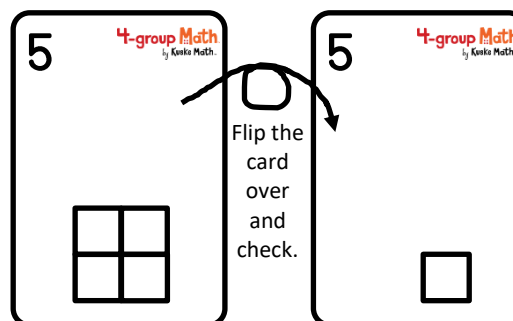
Look and Say:

**Six is four and two more.**



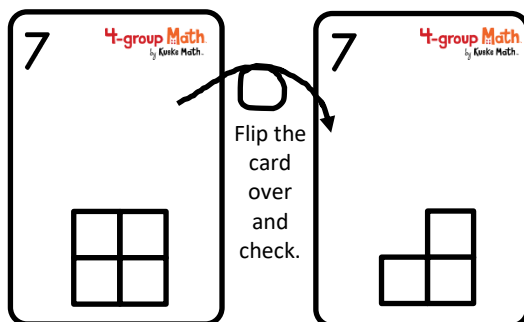
Look and Say:

**Five is four and one more.**

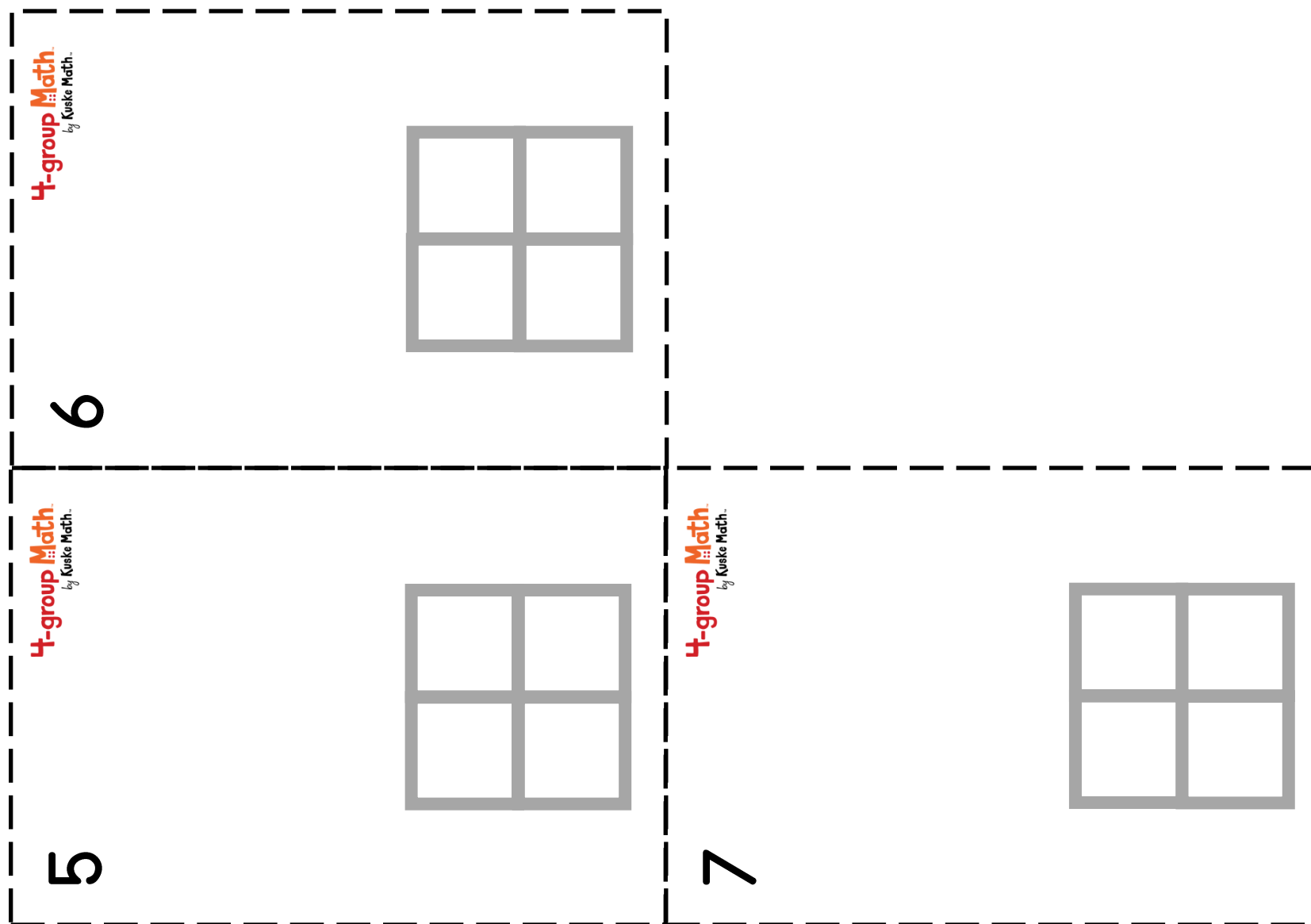


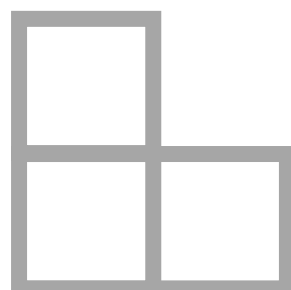
Look and Say:

**Seven is four and three more.**



## Activity 5 – Flip Cards for 5, 6, and 7







# Activity 6 – Assessment Directions

**OBJECTIVE:** Draw and recite the 4-group Number Patterns for 5, 6, and 7  
*Five is four and one more, six is four and two more, and seven is four and three more*

**MATERIALS:** Activity 6 – Assessment Sheet or a blank piece of paper  
Pencil or crayon

**GROUP:** One child with teacher or another adult

**DIRECTIONS:** On a blank piece of paper draw from memory the patterns to make 5, 6, and 7. (FIGURE 1)  
Then, an adult “tests” the student by asking them, in random order: (FIGURE 2)  
“How do you make six?” Student says, “Six is four and two more.”  
“How do you make five?” Student says, “Five is four and one more.”  
“How do you make seven?” Student says, “Seven is four and three more.”  
If you pass, put a sticker in the Sticker space.  
If you do not pass, practice a little more by repeating two activities from Activities 1-5.

FIGURE 1

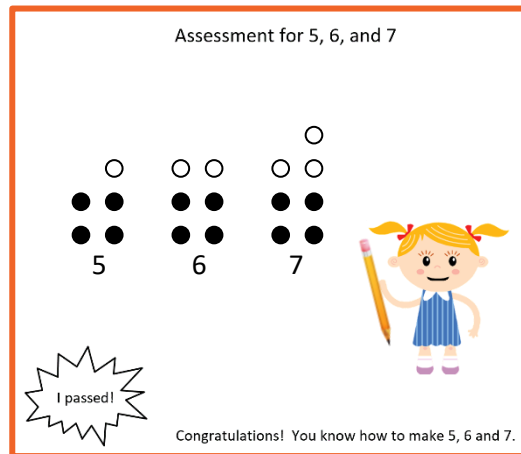
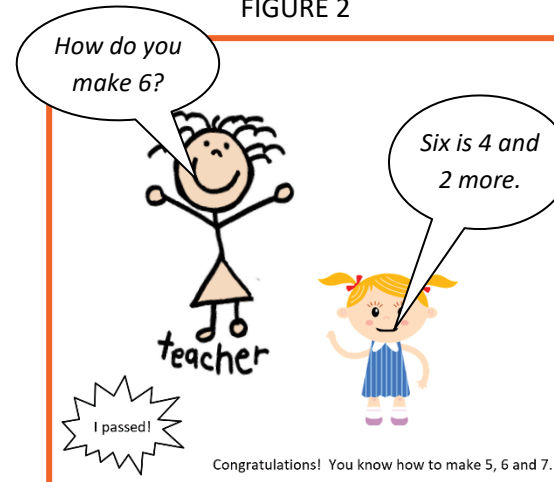


FIGURE 2



EXAMPLE:

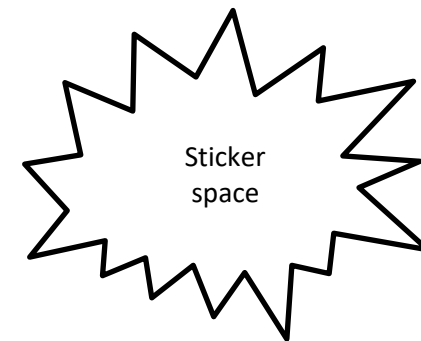
The adult says, “How do you make six?”  
Child says, “Six is four and two more.”

## Activity 6 – Assessment for 5, 6, and 7

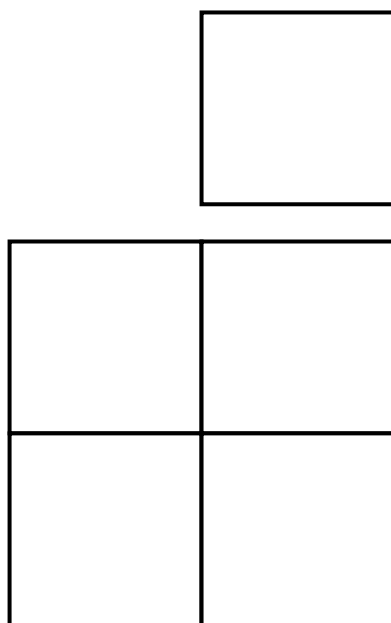


Congratulations! You know how to make 5, 6 and 7.

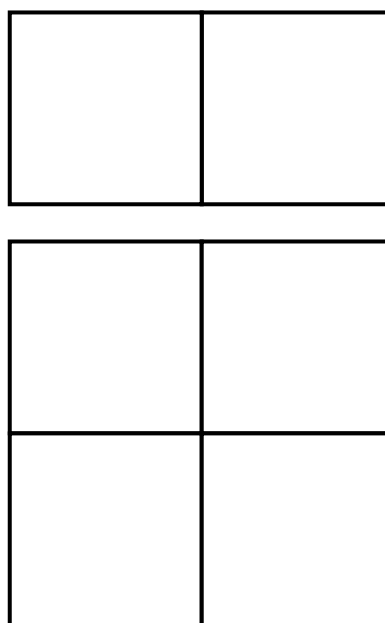
# Worksheet for 5, 6, and 7



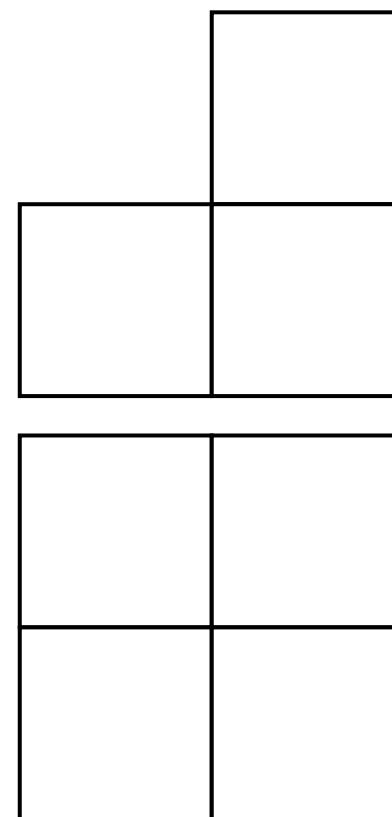
\_\_\_\_\_ is **4** and \_\_\_\_\_ more.



5



6



7