## Home Connection $7 \star$ Activity

## NOTE TO FAMILIES

Pattern Block Butterflies is a geometric challenge that utilizes paper pattern block shapes to fill butterfly outlines. Which pattern blocks will fit? Can you find a solution to the puzzle that's symmetrical? You may need to turn and flip the paper shapes to get them to fit inside the triangular guidelines accurately. Can you find a different way to fill the second butterfly?

## Pattern Block Butterflies

You'll need cutout pattern blocks (yellow hexagons, red trapezoids, orange squares, green triangles, blue rhombuses, and white rhombuses) along with scissors, glue, and 2 copies of Pattern Block Butterflies.

## Instructions

I Work together to cut out some paper pattern blocks. Be sure to save any extras for future Home Connections projects.


2 Use your paper shapes to fill the butterfly on the first worksheet. Try not to leave any gaps or holes, and try to make the shapes fit accurately within the triangular guidelines. You can either glue the shapes to the paper once you've found a solution, or glue them as you go.

3 Can you find a different way to fill the second butterfly?

Return both sheets to your teacher when you are finished.

Be sure to save any extra paper pattern block pieces for future Home Connections.


## NAME

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## Pattern Block Butterflies



## Home Connection $8 \star$ Activity

## NOTE TO FAMILIES

Count \& Compare Butterflies is a card game you may recosnize as a variation on that old standard, "War." The mathematical challenge is to find more than one way to figure out the total number of butterflies on each card. After the totals are determined and compared, a spin of the more or less spinner will decide the winner for each turn.

## Count \& Compare Butterflies

You'11 need the Butterfly cards, the Count \& Compare gameboard, and an envelope in which to store the cards.

## Instructions

I Cut the Butterfly cards apart and store them in an unsealed envelope.

2 Take turns reaching into the envelope to pull out a Butterfly card. How many butterflies are pictured? How did you count them? Can you find more than 1 way?


It's 5! $2+3$ makes 5 .
It's like $2+2$ and I more.


I've got 6. I can tell cause it's I more than 5 . It could be 2 and 4 too.

3 Which of the 2 cards has more butterflies? Fewer butterflies? Place them on the gameboard in the appropriate boxes and spin the spinner to see which card wins. The winner takes both cards.

4 Repeat the actions described in Steps 2 and 3 until there are no more cards left in the envelope.


5 At the end of the game, count the cards each player has collected. Set them on the more and less boxes of the gameboard. Spin the spinner to determine the overall game winner.

Play the game several times this week. You might want to save this game to play again at a later time.

## Butterfly cards



## Butterfly cards



Count \& Compare Butterflies gameboard


## Home Connection $9 \star$ Activity

## NOTE TO FAMILIES

This week's challenge is the Hungry Caterpillar game. Each spin of the arrow indicates which paper pattern block shape can be used to "feed" the hungry caterpillar. Which shapes fill the caterpillar more quickly? How do those shapes fit within the triangular guidelines? Which caterpillar will fill first?

## Hungry Caterpillars

You'll need the Hungry Caterpillar gameboards and the Hungry Caterpillar spinner as well as 16 triangles, 8 rhombuses, and 8 trapezoids cut from the sheets of paper pattern block shapes. (You may have some pieces saved from the Butterfly puzzles.) You'll also need a red, green, and blue crayon along with an envelope in which to store the cut pattern block shapes.

## Instructions

I Work with an adult or older sibling to cut some green triangles, blue rhombuses, and red trapezoids for this game and store them in an unsealed envelope. Color each of the spinner shapes the appropriate color.


2 Cut apart the Hungry Caterpillar gameboards so you have 2 playing boards.

3 Take turns spinning the spinner and collecting the designated shapes to feed your caterpillars. If a player's caterpillar is nearly full and he or she spins a
shape that's too big, that turn is lost. A caterpillar must be filled exactly to win the game.


Play the game several times this week. Be sure to save the cut pattern block shapes for future Home Connections.




## Home Connection IO $\star$ Activity

## NOTE TO FAMILIES

This week's Home Connection is a fun way to practice numeral writing. Many youngsters of kindergarten age benefit by tactile experiences to further the development of their fine motor skills.

## Salt Box Numbers

You'll need a shallow cake pan, jelly roll pan, or a rectangular casserole dish. Cover the bottom with a thin layer of salt. You'll also need the Numeral Writing cards, scissors, and an envelope in which to store the number cards.

## Instructions

I Find the number writing cards and cut them apart.


2 Have an adult or older sibling help you pour a thin layer of salt in a cake pan, a jelly roll pan, or a rectangular casserole dish. Choose a number card and notice the arrow that tells you where to start. Use your pointer finger to write that number again and again until the tray is filled. Show someone in your family.

Numeral Writing cards


## Home Connection II $\star$ Activity

## NOTE TO FAMILIES

What can you do with toothpicks? It's fun to turn them into buildings, houses, and whatever your imagination will allow. They're also a great material for tallying and starting to learn some new counting strategies.

## Toothpick Pictures \& Toothpick Tallying

You'll need the Toothpick Tally cards, a small handful of toothpicks, scissors, and glue.

## Part I

Many young children love creating toothpick pictures, alphabet letters, and anything else their imaginations will allow. Encourage your child to take some time to play with the toothpicks. You might even want to help him or her glue a favorite creation or two to paper for display on your refrigerator.

## Part 2

Tallying can help youngsters begin to learn to "count on" from 5. It also provides opportunities to deal with 1 more or 1 less and to begin developing quick recognition of quantities greater than 5.

## Instructions

Cut apart the boxes on the Toothpick Tallying cards sheet. Can you read the numbers? Lay out the cards in order from the least to the most.

2 Carefully set 4 toothpicks on the first card. Count out 5 toothpicks for the second card and lay out the first 4 on the card. Pick up the fifth toothpick,
turn it diagonally and set it over the other 4 . Is it easy to see that this is a group of 5 ?


3 Continue in this manner until you've set out toothpicks for all of the cards. Do you see how you can either count the toothpicks 1 by 1 or think about them as 5 and some more?


Save the cards for another day and try again. Can you predict how each group will look before you build it with toothpicks?


## Home Connection I2 $\star$ Activity

## NOTE TO FAMILIES

This week's Home Connection is a pair of shapes puzzles in which children use paper pattern blocks to fill tugboats and helicopters. Both puzzles require youngsters to flip and turn the paper shapes in order to get them to fit inside the triangular guidelines accurately.

## Pattern Block Puzzles Tugboats \& Helicopters

You'll need cut pattern blocks (yellow hexagons, red trapezoids, orange squares, green triangles, and blue and white rhombuses) along with scissors, glue, and the two Pattern Block Puzzles sheets.

## Instructions

Have an adult help you cut some paper pattern blocks. Do you have any left over from the Butterfly challenge?


2 Can you find a way to fill the tugboat with pattern block shapes? See if you can make the pieces fit within the triangular lines accurately and then glue your shapes to the worksheet. Now try the helicopter.


3 After you've worked both puzzles, see if you can find a second solution for each. Glue the new combinations of pattern block shapes to the worksheets.

Return both sheets to your teacher when you are finished.

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NAME $\qquad$ RETURN BY $\qquad$

## Pattern Block Puzzles Tugboats



Blackline HC 12.3
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## Pattern Block Puzzles Helicopters



