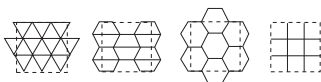


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Ask students to cover their floors completely with pattern blocks, even if the blocks go beyond the edge of the square floor. Have group members show their blocks on a 3-inch square on the overhead, then tell how many blocks it took to cover the floor completely. Ask questions such as: "Did it take more yellow blocks or more red blocks to cover the floor? Why?" Which color needed the most blocks to cover the floor? Why? Which blocks covered the floor exactly?"



Arrange the class into five groups, and prepare a 3-inch square for each group. Ask students to pretend the square is a floor, and ask them to cover the floor with pattern blocks. Assign each group one color pattern block to use.

Exploring Area



then cover it with two of the parts. Ask: "What part of the yellow hexagon is covered?" ($\frac{1}{2}$); Continue asking children to use their pattern blocks to show fractions: $\frac{1}{2}$ of the blue parallelogram; $\frac{1}{3}$ of the red trapezoid; $\frac{1}{3}$ of the yellow hexagon, etc.




LER 0134

 **WARNING:**
CHOKING HAZARD - Small parts.
 Not for children under 3 years.

1/2 cm THICK

Pattern Blocks

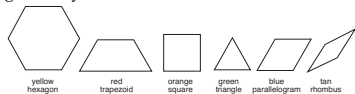
Set of 250 Plastic Blocks

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 Learning Resources Ltd., King's Lynn, Norfolk (U.K.)
 Please retain our address for future reference.
 Made in China. LRM0134-GUD



PATTERN BLOCKS

This 250-piece set of plastic *Pattern Blocks* (LER 0134) consists of shapes that are perfect for creative design, patterning, basic geometry and even fraction activities.



Identifying Pattern Blocks

Provide pairs of children with one set of pattern blocks. Display the yellow hexagon, and ask children to find and display the corresponding block. Depending on their knowledge, you may want to introduce the shape names. Ask: "How would you describe this block?" (Yellow, six sides.) Display the other pattern blocks, asking children to hold up and describe the corresponding blocks.

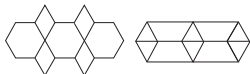
Have children sort their blocks by the number of sides. As needed, guide them in sorting by asking questions such as, "Are there blocks with two sides? With three sides?" Continue questioning children as they form groups of blocks with four and six sides.

Patterns

Create linear patterns such as:



Encourage children to copy and continue the pattern with their blocks. Include other kinds of patterns for children to copy and continue such as:



Congruent Shapes

Display the hexagon and provide children with pattern blocks. Ask: "Can you use other blocks to make a shape that is the same as the hexagon?" Let them work independently to solve the problem. Then ask them to show their solutions.



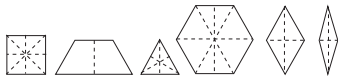
Ask: "What do you notice about each of the shapes we have made? When shapes are the same size and shape, the shapes are called *congruent* shapes." Show children how to place one shape on top of the other to prove they are the same size and the same shape.

Children can record the congruent shapes by tracing and coloring solutions. Then have them continue finding congruent shapes for other pattern block pieces:



Exploring Symmetry

Give students pattern blocks, scissors and paper, and ask them to trace and cut out a hexagon, then fold it into two matching parts. Explain that the fold line is a *line of symmetry*. To find other lines of symmetry in the hexagon, ask children to fold the shape as many ways as they can to find two matching parts. Children can help each other trace the fold lines with a pencil, then count their lines of symmetry. Let volunteers find the lines of symmetry for the other pattern block shapes. If shapes are too small for younger children to fold, provide larger pattern block shapes that they can cut apart and fold.



Fraction Parts

Trace around a yellow hexagon and cover the tracing with two red trapezoids. Say: "I have covered the yellow hexagon with two of the same parts. If I take one of these parts away, how much of the hexagon is still covered?" ($\frac{1}{2}$.) Ask children to use their blocks to find three equal parts that cover the hexagon (blue parallelogram),