AUTHOR/ ILLUSTRATOR:
Lois Ehlert

Squares, hexagons, circles, and other shapes are transformed into vibrant animals in this bright and imaginative book.

Ages: 0 to 5 years

ATOS Reading Level: n/a

Lexile: NP (non prose)

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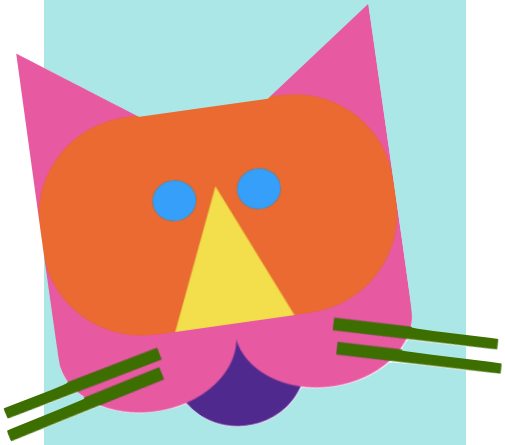


Color Farm

What animal will the shapes make next?

Topics: shapes, classification, geometry, transforming shapes, counting

Activities To Do Together:

Use *Color Farm* to introduce or to learn more about shapes and their characteristics. Talk together about what the shapes in the story have in common. How is a triangle like a square? How is it different?

Before you read *Color Farm* with your child:

- Look at the rooster on the first page of the story. Ask your child to tell you what they notice. Look together for the shapes that make up the rooster. What do you see?
- If your child can already identify some shapes, ask them to tell you about them: their names and what makes each shape unique. If your child isn't familiar with shapes, explore them together. For example, explain that all triangles have three connected sides and three angles. Not all triangles look alike. Some are narrow and tall, others are short and wide, and still others have sides that are exactly the same length. Consider drawing triangles of different sizes - small, large, narrow, and wide before you read the book together.

While reading the book:

- Make a game of finding circles or the circles of a particular color while you read the book. How many circles does your child see in each animal? Count them together.

When you have finished reading the story:

- Read it again and look for one particular shape, for example look for triangles, squares, hexagons, or octagons.
- Give your child paper and scissors or precut shapes, and glue, so they can make a collage with different shapes. When they are finished, ask them to tell you about the shapes they used.
- Encourage your child to make different shapes using squares. Ask what shapes can you create by cutting a square into two equal parts. Can you make circles? Triangles? Rectangles? Ovals? Ask your child to show you how they know the new shapes they made are equal in size. If the shapes aren't equal, ask your child to tell you what they could do differently so the shapes would be equal.

Conversations During Daily Routines with Infants and Toddlers:

1. Play time - Give your child a cardboard shape to hold. Notice what it looks like together. Then have a scavenger hunt to find objects that are the same shape. Compare the cardboard shape with the objects you found together. Are they similar?
2. Bath time - Notice the shapes you see around you. For example, the drain is a circle, the tiles are squares, the towel is a rectangle.
3. Reading time - Talk about the shape of the book you are reading. Point to and name some of the shapes that you see in the story illustrations.
4. Snack time - Cut toast into rectangles and triangles. Ask your child, “Do you want to eat a triangle or a rectangle?” Count the sides of the shapes together, pointing to each side as you count. Have fun arranging the toast shapes into another shape.

Questions for Mathematical Thinking:

1. What animal would you like to make? What shapes would you use to make the animal?
2. Do you think any of the shapes in the book look like each other? If so, which ones? Is there anything different about the shapes you mentioned? If so, what?
3. Could you combine two triangles to make a rectangle? How do you know?
4. What do squares and rectangles have in common?
5. Which was your favorite animal in the story? What shapes did the illustrator, Lois Ehlert, use to make it?
6. What other farm animals could have been included in the story and what shapes could have been used to make them?

Early Math Project Resources:

Visit Color Farm Activities (www.earlymathca.org/color-farm)

Follow this link or visit earlymathca.org/external-resources for additional online resources

Vocabulary

Math words found in the story: circle, diamond, heart, hexagon, octagon, oval, rectangle, square, triangle

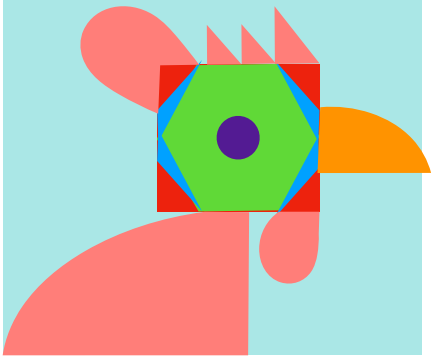
Related math words: angles, attributes, characteristics, classify, combinations, congruent, features, lines, polygons, quadrilaterals, shapes, similar, trapezoid, vertex

Words to build reading comprehension: goose, rooster

Available in: Japanese and Persian

Related Books: *Color Zoo* by Lois Ehlert; *Perfect Square* by Michael Hall; *Captain Invincible and the Space Shapes* by Stuart J. Murphy; *Have you Seen My Monster?* By Steve Light

Click this link to the World Catalog or enter https://bit.ly/49iMi39to find *Color Farm* in the public library.



Math Connections:
When children identify shapes and the attributes that make each shape unique, they are practicing classification skills and gaining important foundational knowledge of geometric concepts. As children manipulate shapes and change how they look, they come to understand that the objects around them are made up of different shapes. *Color Farm* creatively introduces this concept. Take time to enjoy and talk about the ways that Lois Ehlert combined octagons, squares, circles, hexagons, and other shapes to represent many of the animals that live on the farm.

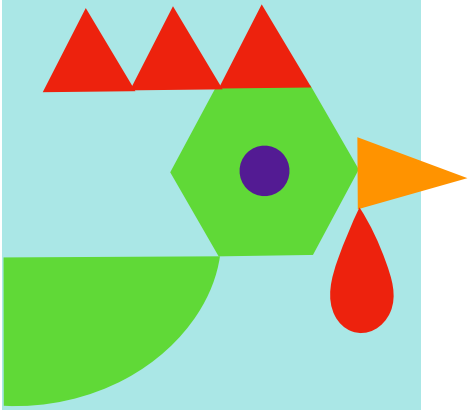
After you've read this book with your child, encourage them to look for and identify the shapes that they notice in everyday objects. What does a stop sign look like? What shapes could be used to represent a dog? What shapes do they see when they look at a cereal box? What are the shapes at the ends of a can and what shape seems to be wrapped around these shapes? Shapes can be found everywhere. Encourage your child to find the shapes around them. When they see a shape, talk about its name, count its sides and angles together, and talk about what makes it unique.

If your child is not yet familiar with shapes, pick one shape to begin with. Talk about how the shape looks and how it can look (for example, triangles can look different depending on the length of their sides and how they are turned). Discuss the number of sides and the number of corners found in the shape. Encourage your child to find the shape as you read the book. Gradually introduce new shapes as your child becomes confident identifying the shapes you have already introduced.

If your child is already familiar with shapes, talk about the different attributes that make a shape unique. For example, how is a triangle different from a square and how are they the same? If your child does not know what the word attribute means, explain that an attribute describes a characteristic or feature. For example, a triangle always has three sides and three corners (vertices).

After reading the book together, go on a shape walk to continue practicing shape recognition. Name the shapes you see and talk about what makes each one unique.

Challenge your child to identify other farm animals that could have been included in the story and to create the animals

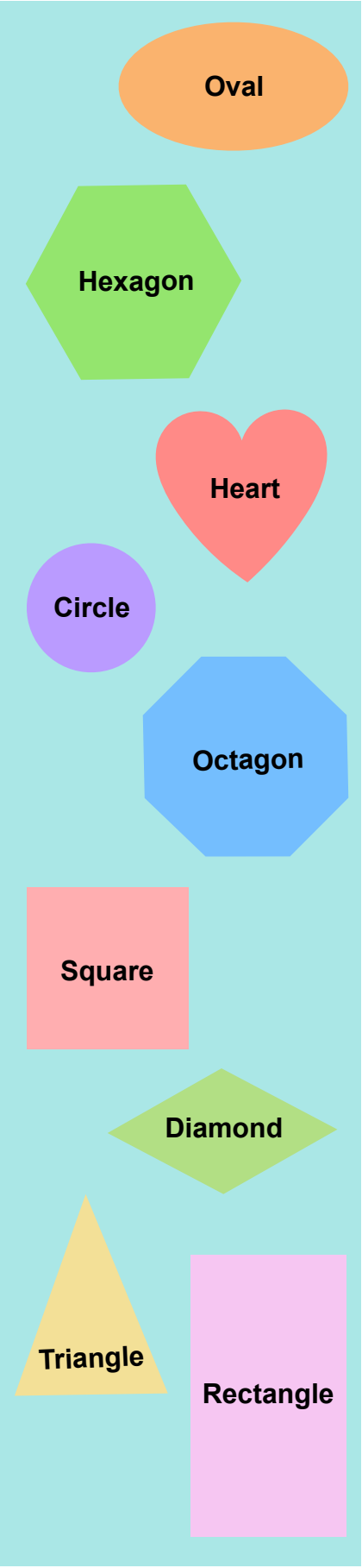


using shapes. Ask your child to tell you how they made the new farm animals, what shapes they used, and how many of each shape was needed.

Tell your child that Lois Ehlert also wrote a book called *Color Zoo*, which uses shapes to create animals that are often found at the zoo. Ask your child what animals they think Lois Ehlert would have included in a book called *Color Ocean*. What animals do they think would belong in a book called *Color Jungle*? Or *Color Desert*? Encourage your child to design a shape animal for one of these imaginary books. Challenge your child to create an animal that would fit in both the *Color Zoo* and *Color Desert* books.

Have fun manipulating shapes. Start by giving your child 10 precut squares of the same size. Explore together how many different, larger squares can be made using some or all of the precut squares. Ask your child whether it is possible to make a square using three of the precut squares. Why do they think so? Could a rectangle be made from three squares? Why or why not? You might share with your child that squares are actually a very special type of rectangle that have four equal sides. Notice that there are many different rectangles than can be made with the ten precut squares, but very few squares (there are only two larger squares possible).

Encourage your child to make their own shape book and add new pages to their book as they learn new shapes. Your child might want to feature a different shape on each page, label the shape, and draw some of the places they encounter the shape. Your child might also enjoy taking pictures of different places they see the shape.



Age Level	Related Infant Toddler Foundations, Preschool Foundations and CA State Standards
Infant/ Toddler	**Number Sense** The developing understanding of number and quantity. **Classification** The developing ability to group, sort, categorize, connect, and have expectations of objects and people according to their attributes.
Preschool/ TK	**Number Sense 1.0** Children begin to understand numbers and quantities in their everyday environment. **2.3** Understand that putting two groups of objects together will make a bigger group. **Algebra and Functions 1.1** Sort and classify objects by one or more attributes, into two or more groups, with increasing accuracy. **Geometry 1.0** Children identify and use a variety of shapes in their everyday environment.**1.1** Identify, describe, and construct a variety of different shapes. **1.2** Use shapes to represent different elements of a picture or design.
Kindergarten	**Counting and Cardinality K.CC.4** Count to tell the number of objects. **Measurement and Data K.MD.3** Classify objects and count the number of objects in each category. **Geometry K.G.1** Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). **K.G.4** Analyze, compare, create, and compose shapes. **K.G.5** Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. **K.G.6** Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”