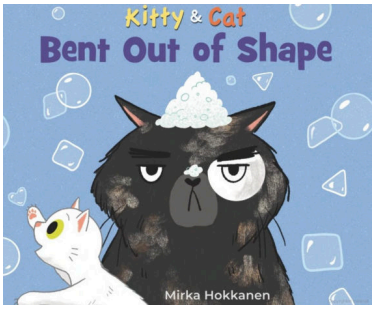

Kitty & Cat Bent Out of Shape

Will Cat have to take a bath?

Topics: shapes, spatial relationships

AUTHOR/ ILLUSTRATOR:
Mirka Hokkanen

It's bath time and Cat doesn't want to be found. Cat twists into a triangle, an oval, a parallelogram and other shapes to avoid taking a bath.

Ages: birth to six years

ATOS Reading Level: n/a

Lexile: n/a

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Activities To Do Together:

Kitty & Cat Bent Out of Shape playfully introduces nine basic shapes. Exploring the attributes of shapes encourages children to think about how shapes are similar and different. With practice they begin to recognize a shape's special characteristics which allow it to be categorized as a circle, triangle, square, or rectangle, etc. Categorizing is an important skill that helps children develop expectations of objects and make sense of their world.

Before reading the book:

- Compare the two cats on the cover of the book. Take turns sharing how the cats are similar and different.

While reading the book:

- Stop periodically and ask your child to tell you where they think Cat is hiding using spatial words like **under**, **behind**, **inside**, **next to**, and **in**.
- Count what you see in the illustrations together. How many chairs are around the table? How many ribbons on the kite?

When you have finished reading the book.

- Ask your child what they think is going to happen next at Cat's house. Ask them to explain why they think so.
- Talk about the meanings of the words "bent out of shape". This phrase can mean that an object is forced (or bent) into a different shape. It can also mean that someone is upset. Ask your child if they think *Kitty & Cat Bent Out of Shape* is a good title. Why or why not? Ask why they think the author chose this title for the book.
- Notice shapes throughout the story. For example, the backs of the chairs are trapezoids, the dresser drawers are rectangles, and the knobs on the oven are circles.

Extension Conversations During Daily Routines with Infants and Toddlers:

1. Lunch Time - Make lunch time triangle time. Talk about the characteristics of a triangle. Pizza, samosas, bell peppers, sandwiches, watermelon, and quesadillas can become triangles!
2. Bath Time - Talk about shapes in the shower or bath. What's the shape of the drain? Wall tiles? Washcloth? Etc.
3. Play Time - Pick a favorite toy and identify the shapes you see in the toy together.
4. Art Time - Make a mural. Dip rectangular, circular, square, and triangular blocks, sponges, or cardboard pieces into poster paint. Use them to stamp a design or pattern.
5. Travel Time - Point out and name the shapes of different signs that you see during your travels. Count the sides of the shapes and notice what makes each shape unique.

Questions for Mathematical Thinking:

1. Who is looking for Cat? Why do you think so?
2. Why do you think there were flies in the story? Are they important to the story? How do you think the story might have been different without the flies?
3. Did Cat make a good triangle? Why or why not?
4. How are Kitty and Cat alike? How are they different?
5. Where do you see circles in the story?

Early Math Project Resources:

Visit Kitty & Cat Bent Out of Shape Activities (www.earlymathca.org/kitty-&-cat-bent-out-of-shape)

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

Vocabulary

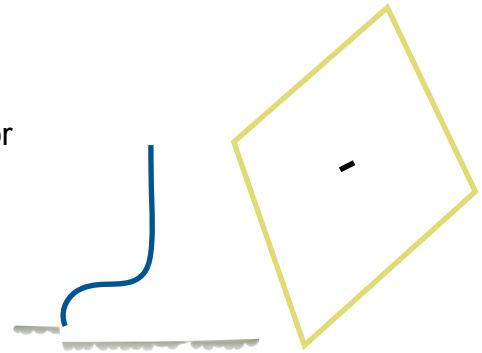
Math words found in the story: circle, diamond, heart, parallelogram, oval, shape, square, rectangle, trapezoid, triangle

Related math words: geometry, polygon, quadrilateral, rhombus, sphere, symmetry

Words to build reading comprehension: bent

Related Books: *Captain Invincible and the Space Shapes* by Stuart J. Murphy; *Color Zoo* by Lois Ehlert; *Color Farm* by Lois Ehlert; *The Shape Song Swingalong* by SteveSongs; *Circle! Sphere* by Grace Lin; *Perfect Square* by Michael Hall; *Ship Shapes* by Stella Blackstone

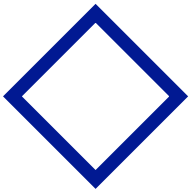
Click this link to the World Catalog or enter bit.ly/499yHKy to find *Kitty & Cat Bent Out of Shape* in the public library.



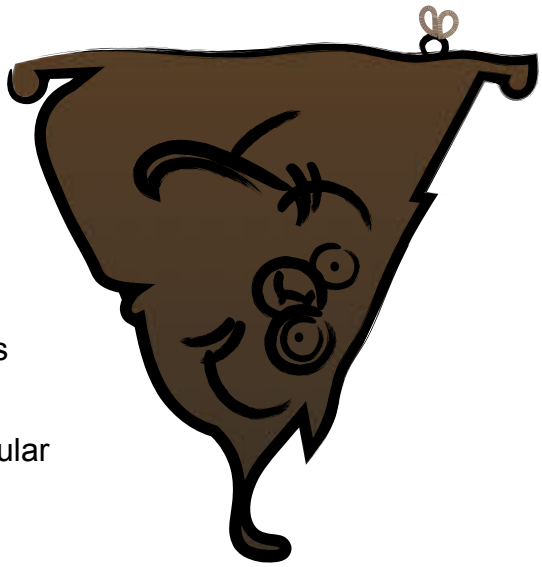
Math Connections: *Kitty and Cat Bent out of Shape* is an amusing way to practice shape recognition with your child and to support their understanding of shape characteristics and properties.

When children begin to identify shapes, it's not unusual for them to focus on a single attribute of the shape, like the number of lines or the presence of sharp points. They may think that two shapes are the same if they have more similarities than differences. For example, a child may think that a triangle and a parallelogram are the same because they both have "points" and lines. It's common for children to assume that different types of shapes that share a common attribute are the same shape. This is a great learning opportunity. If your child says that stars and triangles are the same, ask them to tell you what they notice that is the same about the two shapes and then look together at how the two shapes are different. Explorations like this will help them start to understand the specific attributes that make each shape unique.

Children who have an idea what a particular shape looks like may not recognize the same shape when it's positioned differently, has a different size, or appearance. Explore together how the size or the orientation of a shape doesn't change the shape. All of these are squares.

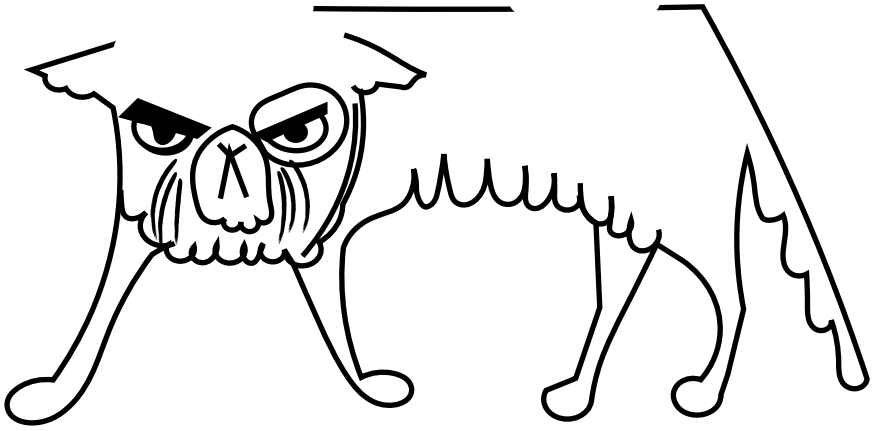


Talk about how the position, size, or color doesn't change the unique characteristics that define the shape. In the example above all of these are squares because they have four equal sides and four 90 degree angles.



Your child may enjoy:

- Combining tangram pieces to create shapes
- Creating shapes from popsicle sticks or pencils
- Comparing shapes ie., noticing how circles and ovals are the same and different
- Explaining to someone what is unique about a particular shape

- Making new shapes from smaller shapes, for example combining two triangles to create a square or combining two squares to make a rectangle

Age Level	Related Infant Toddler Foundations, Preschool Foundations, and CA State Standards
Infant/Toddler	**Spatial Relationships** The developing understanding of how things move and fit in space. **Classification** The developing ability to group, sort, categorize, connect, and have expectations of objects and people according to their attributes. **Cause and Effect** The developing understanding that one event brings about another.
Preschool/TK	**Algebra and Functions 1.0** Children begin to sort and classify objects in their everyday environment; **2.0** Children begin to recognize simple, repeating patterns. **Geometry 1.0** Children begin to identify and use common shapes in their everyday environment; **1.1** Identify simple two-dimensional shapes, such as a circle and square; **2.0** Children begin to understand positions in space
Kindergarten	**Geometry K.G.1, K.G.2** Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).
Grade 1	**Geometry 1.G.1** Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes