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In this story within a story, Grandfather Tang and Little Soo use tangrams to illustrate the lively adventures of two shape-changing fox fairies.

Ages: 5 to 8 years

Interest Level:
Kindergarten to 2nd
Grade

ATOS Reading Level:
3.7

Lexile: AD 660L

ISBN: 9780517885581

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Genre: Fiction

Classification: Picture
Story Book

Grandfather Tang's Story

What animal will you create with a set of tangrams?

Topics: geometry, shapes, composing shapes, spatial visualization

Math Connections: Use *Grandfather Tang's Story* to introduce, identify, compare, and manipulate geometric shapes. Encourage your child to create each of the animals in the story with the seven tangram pieces. Can they find a different way to make each of the animals in the story with tangram pieces? Ask your child what animal they would add to the story and to show you how they would make that animal using tangrams.

Identify the types of shapes that are in a set of tangrams and talk about the characteristics of each of the shapes. Compare the parallelogram with the square—how are they alike and how are they different? How are parallelograms and squares like triangles? How are they different?

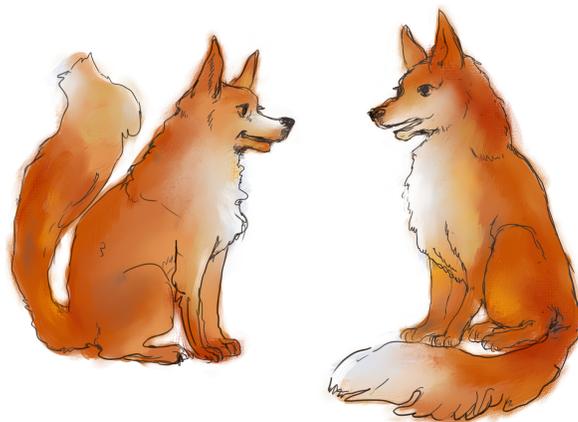
Challenge your child to make different geometric shapes using all of the tangram pieces. Challenge your child to make a square with all seven shapes. Ask if they can make a square with 6 pieces, 5 pieces, 4 pieces, 3 pieces, 2 pieces, and a single piece. Is it possible? Ask them to show you how they know. Discuss if it's possible to make other shapes such as hexagons, pentagons, triangles, rectangles, and circles. Ask your child to show and explain their reasoning.



Extension Questions:

1. A set of tangrams has seven pieces. How many pieces are triangles? How are the triangles different? How are the triangles the same?
2. A set of tangrams has one square and one parallelogram. How are the square and parallelogram different? How are they the same? How would you describe these two shapes to another person?
3. Sort the animals in this story into groups of flying animals and non-flying animals. What other ways can you sort the story animals? Sort the animals your way and ask someone to guess how you sorted them.
4. What shapes can you make with your tangram pieces?
5. Which of these shapes can you make with all or some of your tangram pieces? Square, Pentagon, Rectangle, Hexagon, Circle, Triangle, Octagon? What other shapes can you make?

Vocabulary for Building Math Concepts	above, beside, between, bigger, bottom, closer, different, edge, many, middle, moments later, same, smaller, straight, together, toward
Vocabulary for Extending Math Concepts	attributes, congruent, flip, identical, parallelogram, polygon, quadrilaterals, rectangle, rotate, sides, similar, slide, square, triangle
Vocabulary for Reading Comprehension	tans, arranges, gobble, discourage, geese, fainter, flock, swoop, transformation, seize



Spanish Title: N/A

Related Books: *Three Kids, One Wolf, and Seven Magic Shapes* by Grace Maccarone

Find this book at your local library: https://www.worldcat.org/title/grandfather-tangs-story/oclc/140031612&referer=brief_results

Early Math Project Resources:

Tangram activities and festival activities from the Early Math Project Website

<http://www.earlymathca.org/tangrams>

Use two triangles to make:

1. A larger triangle
2. A square
3. A quadrilateral

Online Resources:

K - 5 individual or station activity

<http://www.abcya.com/tangrams.htm>

Classroom lesson idea for story

<https://www.illustrativemathematics.org/content-standards/tasks/1311>

Age Level	Related Preschool Foundations and CA State Standards
Infant/ Toddler	Not applicable.
Preschool/ TK	Not applicable.
Kindergarten	Geometry: K.G.1, K.G.2; Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). K.G.4, K.G.5, K.G.6; Analyze, compare, create, and compose shapes.
Grade 1	Geometry: 1.G.1, 1.G.2; Reason with shapes and their attributes.
Grade 2	Geometry: 2.G.1 (partially); Reason with shapes and their attributes.
Grade 3	Geometry: 3.G.1 (partially); Reason with shapes and their attributes.