

Tiered Lesson Plan Using Tic-Tac-Toe

Lesson Topic: Tangrams

Age Level: Multi-Age (K, 1st, and 2nd)

This lesson is tiered by process according to interest and readiness.

Objectives:

1. A student will be able to define a tangram puzzle, including how many pieces and which shapes are in a tangram.
2. A student will be able to complete a tangram puzzle card given to them.
3. A student will be able to design their own tangram puzzle.
4. A student will be able to identify an angle.

State Standards with Indicators

1. K-G#6: The student will compose simple shapes to form larger shapes.
2. 1st-1G#2: The student will compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create a composite shape, and compose new shapes from the composite shape.
3. 2nd-2G#1: The student will recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals...

Materials/Technology Needed:

Grandfather Tang's Story by Ann Tompart

A set of Tangrams Cards that follow the story above (provided by me)

Ipad or smart phone with the "TanZen Lite App"

1 set of tangrams for each student

3 extra sets of paper tangrams per student to build a tangram city skyline

1 floor set of tangrams to be shared

Construction Paper

Sensory Table with sand and tangrams inside

Computer Access to the site <http://www.abcya.com/tangrams.htm>

Kitchen supplies to make a tangram sandwich or quesadilla.

Tempera or water color paint and paper or canvas

Description: This will be an approximately 30 minute small group lesson on Tangrams with 3 children, ages 5, 6, and 7 followed by a week long opportunity to choose 3 or more projects and/or activities to further their exploration and knowledge of tangrams. The teacher will begin by giving the students 5 minutes to explore a set of tangrams. The teacher will talk about how many shapes are in the set and the names of the shapes. Students will point out the angles in the shape with the teacher's help. Students will listen to the story "Grandfather Tang's Story by Ann Tompart as they build tangram pictures using given cards that correspond to the story. When the story ends, they will be able to choose from a Tic Tac Toe board how they will continue learning about Tangrams and meeting objectives listed above.

Variance of Content: Students will be able to choose activities and product to create to further explore Tangrams and meet the learning objectives. Activities and products are varied by learning styles and include individual, partner, and group options. Activities include choices in technology, art, writing, food, fine and gross motor (creating a game using a floor tangram puzzle), and sensory exploration.

Variance of Procedure: Students will be able to work individually or together to complete activities and products of their choice. Guidance from the teacher will be available and will vary based on student readiness and academic level.

Variance of Product: Students will be given 9 choices of activities and products on a tic-tac-toe board. They are asked to choose 3 that vary by interest, readiness, and learning style. They may also choose to do more than 3. If they would like to suggest an activity or choice in replacement of one of the squares, they may discuss with the teacher.

Assessment:

- Students will be assessed through observation during the reading of Grandfather Tang's Story for following along and participating in building on the tangram cards in a small group.
- Students will be assessed through observation for participation in the following activities on the tic-tac-toe boards: TanZen App, ABCya Tangrams, and Sandgrams.
- Students will be assessed through completion of the following products from the tic-tac-toe board:
 - Tangram Snack: Were all 7 shapes used?
 - Tangram City: Did the student use multiple sets of tangrams? Does it resemble a city skyline?
 - Tangram Story: Did the student tell a story with a beginning, middle, and end that incorporated 3-5 different tangram puzzles?
 - Tangram Artist: Did the student produce a creative design, not used in any of the lesson, label and paint it?
 - YourGrams: Did the student create a new design of puzzle by dividing up a shape into smaller shapes? Did they create 3 new puzzle cards for someone else to fill out?

Culminating Activity: Read the stories the students created while everyone builds along with the story. Send each book home in a baggie with a set of tangrams for sharing at home.