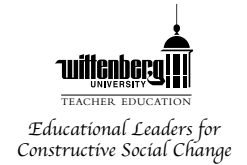


# Wittenberg University

## Education Department Adopted Lesson Plan



Witt Student Name **Amanda Stevenson, Chelsee McFarland, James Smith**      Date

Course Name      Instructor

Clinical Faculty (CF) Name      CF Approval (Initial)

Grade Level **Second**      Subject Area(s) **Math**

**LESSON TOPIC** **What is a Quadrilateral?**

Type of Lesson       Small Group       Whole Class

***Confidential Information:***

*IEP Goals and 504 Plans addressed for identified students (first names only):*

## Materials & Resources:

Where did you get your lesson ideas? Provide APA citations for origin of lesson (e.g., original, textbook, internet URL, etc.)

Original

Numberock. (2015, September). The Quadrilaterals Song: 2D Shapes Song for Kids. *Youtube.com*.

List and attach copies of handout(s), workbook pages(s), notes, etc. at end of plan

Team quadrilateral sheets

What technology and how are students using it for this lesson?

Clothespins-making quadrilaterals as teams; geoboards/rubber bands-making quadrilaterals individually

## The Big Idea / Enduring Understanding and Essential Question

Geometric shapes are characterized using specific criteria/Quadrilaterals are defined as having four sides

What different types of quadrilaterals exist and what makes them different?

## Ohio's New Learning Standards (ACS) / Common Core State Standards (CCSS):

Educational Standards *(for math and science include practice standards)*

2. Geometry. A. 1. Recognize and draw shapes having specific attributes given angles/faces and identify triangles, quadrilaterals, pentagons, hexagons and cubes.

4. Model with mathematics

## Anticipated Prior Knowledge

Students are able to distinguish between defining attributes of geometric shapes such as number of sides, and non-defining attributes like color and orientation.

## Lesson Objectives

3-part measurable objective

Students should be able to construct and identify types of quadrilaterals by name and construct examples on a geoboard.

## Assessment Guidelines

(include scoring key, rubric, etc.)

Students will construct three out of the five types of quadrilaterals and identify the shapes by name.

## Instructional Procedures (identify steps in sequential order)

### A. Engage and Explore

1. Have students come to the carpet with a view of the smartboard. Students should bring a clipboard, piece of paper and a pencil. Play the [www.Youtube.com](http://www.Youtube.com) video *Camp Quadrilateral* from Numberock. This video and song introduces students to new quadrilaterals they may not be as familiar with as squares and rectangles. The video also introduces parallelograms, trapezoids, and rhombuses. The song's verse repeats "Quadrilaterals have four sides and four angles!" This statement mentions the attributes which make up quadrilaterals.
2. Instruct students to pay close attention as the video plays again. Tell them the video will be paused after the description of each type of quadrilateral, and they should write down or draw anything which will help them remember the attributes of the quadrilaterals. Play the video again pausing after each description of the quadrilaterals.
3. Tell students you need help deciding what shape your garden plot should be. Let them know your garden plot needs to be in the shape of one of the five types of quadrilaterals, but you aren't sure which one.

## Differentiation

(including IEP goals being addressed)

Make sure to provide adequate time for all students to make their notes. Some may take longer than others. Have students touch their finger to their nose when they are finished.

4. Tell students they will be completing an activity in teams to learn more about the types of quadrilaterals and help you decide what shape the garden should be planted in. Split students up into teams of 3-5 \*there should only be 3-4 teams, and show them to their place in the room where they will be completing the activity. Students should take their clipboard, notes over the video and pencil.

5. There should be a paper labeled each of the five quadrilaterals at each station along with a pile of clothespins. Instruct each team of students to make each type of quadrilateral out of the clothespins one at a time or all at once. They should lay the clothespin shape on the correct paper and trace around it. Also students should describe in words on each paper why they believe the shape they made is each type of quadrilateral. In other words "How do you know this is a rectangle, rhombus etc.?"

6. As students are working walk around the room and clarify directions for those teams who are confused. Handle disputes about duties within the teams.

7. Ask students for clarification of what they have written to describe the shapes. Each group will have a chance to share how they decided what type of quadrilateral will be best for the garden during discussion.

### B. Explain and Discuss

1. Ask students to return to the carpet. Allow each team to present their findings about the types of quadrilaterals and reveal their answer to the garden plot question. Allow for peer questions and give students time to clarify their explanations or restate. Use talk moves to elicit detail or for clarification if needed.

2. The mathematical idea to highlight is that each type of quadrilateral has specific characteristics or attributes. The type of a quadrilateral can be determined by examining its attributes (angles/sides).

### C. Closure

1. Students should return to their desks/tables. Each student should have a geoboard and rubber bands. Instruct students to make three different types of quadrilaterals. \*Students are allowed to use their notes from the video. When they have done so they should raise their hand and you will observe their work and ask them to point out and name each quadrilateral they constructed. Take notes for each student for assessment purposes. Indicate whether the student was able to construct and identify the shapes and how many.

### Homework & Home Connections:

### Academic Language/Key Vocabulary: (Words and student-friendly definitions)

Quadrilateral: a four sided shape

Square: a four sided shape with the same length sides and four right angles

Rectangle: a four sided shape with matching opposite side lengths

Parallelogram: a four sided shape with two sets of parallel lines

Parallel: lines which will never intersect

Trapezoid: a four sided shape with one set of parallel lines

Rhombus: a four sided shape with four equal sides

### Interdisciplinary Connections:

**Lesson Reflections** (Reflection to include supporting evidence)

Which instructional practice(s) work well in your teaching and why; which need to be changed and why?

Describe the performance of your class/group; reflect on how your students did on each learning objective and your next teaching steps.

Based on individual student performance, what are your next steps?

Team recording sheets

# Square

# Rectangle



# Parallelogram

# Trapezoid

# Rhombus