

LEARNING PLAN

Blanca Frisch

Exploratory Activities <ul style="list-style-type: none">➤ Triangle mania. Recognizing Triangles.➤ Read <i>The Greedy Triangle</i> by Marilyn Burns and discuss.➤ Make a KWLH chart.➤ Vocabulary and symbols related with triangles.	CONCEPT <u>Triangles (2D shapes)</u> <ul style="list-style-type: none">✓ Classifying triangles.✓ Interior angles.✓ Measuring perimeter.✓ Finding the area.
Concept Development Activities <ul style="list-style-type: none">□ Classification<ul style="list-style-type: none">• Classifying triangles.• Learning by degrees• Ten minutes until takeoff. Center:<ul style="list-style-type: none">▪ Gym floor geometry.▪ Triangular logos.□ Interior angles<ul style="list-style-type: none">• Sums of interior angles in a triangle.• Exploring the angles of a triangle.• Adding using Geometer's Sketchpad. Center:<ul style="list-style-type: none">▪ Triangle bingo.□ Perimeter and area<ul style="list-style-type: none">• Geoboard Formulas Triangles.• Investigating the area of a triangle.• Area, area. Center:<ul style="list-style-type: none">▪ Working backward with triangles.• The four-triangle problem.	Materials and Resources <ul style="list-style-type: none">❖ <u>Manipulatives</u><ul style="list-style-type: none">▪ Geoboards▪ Rubber bands▪ Record sheets▪ Grid paper▪ Color pencils▪ Rulers▪ Protractors▪ Scissors▪ Markers▪ Construction paper▪ Glue stick / tape▪ Die▪ Game cubes▪ Color counters▪ Computers▪ Squares of paper▪ Triangles of paper and different materials▪ Pencils❖ <u>Books</u><ul style="list-style-type: none">▪ <i>The greedy triangle</i> by Marylin Burns.▪ <i>Looking at geometry</i>. AIMS activities grades 6-9.▪ <i>Geometry and measurement 4-5</i>. Incentive publications, Inc.▪ <i>Mathematics games for fun and practice</i>. Addison-Wesley Publishing Company.▪ <i>Math ties. Book A1</i>. Critical thinking books and software company.▪ <i>Critical thinking activities, grades 7-12</i>. Dale Seymour Publications.▪ <i>About teaching mathematics. 2nd edition</i>. Marilyn Burns.▪ <i>Passport to mathematics, book 1</i>. McDougal Little.▪ <i>Sixth grade math</i> by Steck-Vaughn.▪ <i>Math at hand</i>, a mathematics handbook.❖ <u>Websites and software</u><ul style="list-style-type: none">▪ www.rusmp.rice.edu▪ Geometer's Sketchpad.

<p>Basic Facts and Standard Algorithms Formalized</p> <ul style="list-style-type: none"> ❖ Identify triangles by their sides and their angles. ❖ Explore properties of the interior angles of a triangle. ❖ Measure the perimeter of a triangle. ❖ Discover the formula to find the area of a triangle, and use it to solve real-life problems. <p><i>Passport to Mathematics. Book 1.</i></p> <ul style="list-style-type: none"> ❖ Triangles, pp. 450-453. ❖ Exploring the angles of a triangle, pp. 458-461. ❖ Area of a triangle, pp.492-495. 	<p>Originality and Creativity <i>Student Products</i></p> <p>Written</p> <ul style="list-style-type: none"> • Make a list of triangular things that can be found at home or at school. • Select one item from the list, write a story of how was it created, and why is it useful. <p>Verbal</p> <ul style="list-style-type: none"> • Create a song about The Greedy Triangle. • Describe different triangles to a partner so he/she can draw it. • Explain how to get the formula that is used to find the area of a triangle.
<p>Assessment</p> <ul style="list-style-type: none"> ✓ Math logs. ✓ Standardized test practice. (pp.467 and 495) ✓ Practice test. (TE p.71) ✓ Types of triangles. ✓ Student products. ✓ Student self-evaluation. 	<p>Kinesthetic</p> <ul style="list-style-type: none"> • Make a mobile using different types of triangles. The triangles may be done with several materials, and should be labeled on one side with the type of triangle.
<p>Related TEKS</p> <ul style="list-style-type: none"> ➤ 6th grade <ul style="list-style-type: none"> 6.4.A. Use tables and symbols to represent and describe proportional and other relationships involving perimeter, area, etc. 6.4.B. Generate formulas to represent relationships involving perimeter, area, etc. from a table of data. 6.6.B. Identify relationships involving angles in triangles and quadrilaterals. 6.8.B. Select and use appropriate units, tools, or formulas to measure and to solve problems involving length and area. 6.8.C. Measure angles. ➤ 7th grade <ul style="list-style-type: none"> 7.6.B. Use properties to classify shapes including triangles, quadrilaterals, pentagons, and circles. 7.6.D. Use critical attributes to define similarity. 7.8.C. Use geometric concepts and properties to solve problems in fields such as art and architecture. 7.9.A. Estimate measurements and solve application problems involving length, area, and volume. 	<p>Visual</p> <ul style="list-style-type: none"> • Create a bulletin board, collage, or quilt, using pictures from magazines, newspapers, etc., showing triangular things. • Construct a Venn Diagram poster classifying triangles by their sides (or angles). • Draw a picture using only triangles. Use at least 10 triangles.