UNIT 4 - LESSON PLANS

Class	Geometry	**Topic**	U4 – Isosceles and Equilateral Triangles	**Lesson** 5 **Of** 7

Objective	Students will:
	• Summarize the definition/properties of an isosceles triangle in their own words.
	• Measure the angles and sides of a triangle using a protractor and ruler.
	• Construct an isosceles triangle using protractor and ruler.
	• Categorize triangles as isosceles or not isosceles based on their properties.
	• Connect isosceles triangles to multiple real world examples.
"I Can" Statement	• I can solve problems involving the properties of isosceles and equilateral triangles.

Common Core Standards	CCSS.MATH.CONTENT.HSG.CO.A.2
	Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).
	CCSS.MATH.CONTENT.HSG.CO.A.5
	Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.
	CCSS.MATH.CONTENT.HSG.CO.B.6
	Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
	CCSS.MATH.CONTENT.HSG.CO.B.7
	Use the definition of congruence in terms of rigid motions to show that two

triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.

CCSS.MATH.CONTENT.HSG.CO.B.8
Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

CCSS.MATH.CONTENT.HSG.CO.C.10
Prove theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.*

CCSS.MATH.CONTENT.HSG.CO.D.12
Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).*Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line*.

CCSS.MATH.CONTENT.HSG.CO.D.13
Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

Bell Work	See 4-5 Bell Work

Procedures	1. Start and lead student discussion related to the bell work. 2. Distribute the Guided Notes 3. Present lesson or play a video lesson. 4. Use an Online Activity if time permitted. 5. Do class activity on isosceles triangles. 6. Distribute Lesson Assignment.

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7. Exit Slip

Assessment	Bell Work 4-5
	Assignment 4-5
	Exit Slip 4-5

Additional Resources	See Online Activities