WESTSIDE HIGH SCHOOL

Level Up: RISE to Your Potential

24-25 Lesson Plan Template Teacher: Nkechi Chuke-Oweina Subject: Geometry Prep

Week of: **DATE**	**Monday** **January 13, 2025**	**Tuesday** **January 14, 2025**	**Wed./Thurs.** **January 15 & 16, 2025**	**Friday** **January 17, 2025**
TEKS	GEOM.8B	GEOM.8B	GEOM.8B	GEOM.8B
Learning Objective	SWBAT apply the Angle-Angle criterion and the proportionality of the corresponding sides to solve problems.	SWBAT apply the Angle-Angle criterion and the proportionality of the corresponding sides to solve problems.	SWBAT identify and apply the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle, including the geometric mean, to solve problems.	SWBAT apply the relationships in special right triangles (30º-60º-90º and 45º-45º-90º) and the Pythagorean Theorem, including Pythagorean triples, to solve problems.
Higher Order Thinking Questions	How can the properties of similar triangles be used to determine measurements in the real world that are difficult to measure directly?	How can the properties of similar triangles be used to determine measurements in the real world that are difficult to measure directly?	What relationships are created among the resulting triangles when an altitude is drawn to the hypotenuse of a right triangle?	What are the ratios of the side lengths of special right triangles and how do we use the ratios to solve problems?
Agenda	1. Do Now 2. Lesson – Triangle Similarity Application problems	1. Do Now 2. Lesson – Triangle Similarity Application problems	1. Do Now 2. Lesson – Geometric Mean	1. Do Now 2. Lesson – Special Right Triangles

	- Introduce indirect measurement. - Use mirror reflections to solve measurements indirectly. - Use shadows to solve measurements indirectly. - Solve practice problems. 3. DOL – Independent Practice	- Introduce indirect measurement. - Use mirror reflections to solve measurements indirectly. - Use shadows to solve measurements indirectly. - Solve practice problems. 3. DOL – Independent Practice	- Investigate what happens when the altitude is drawn to the hypotenuse of a right triangle. - Introduce the Geometric Mean and the Right Triangle/Altitude Similarity theorem. - Introduce the Right Triangle Altitude/Hypotenuse Theorem. - Introduce the Right Triangle Altitude/Leg Theorem. - Practice solving problems. 3. DOL- Independent Practice	- Explore the side lengths of a 30^o-60^o-90^o right triangle. - Explore the side lengths of a 45^o-45^o-90^o right triangle. - Practice solving problems. 3. DOL- Independent Practice

Demonstration of Learning	Given 5 problems, students will correctly apply the Angle-Angle criterion and the proportionality of the corresponding sides to solve problems in 4 of 5 questions.	Given 5 problems, students will correctly apply the Angle-Angle criterion and the proportionality of the corresponding sides to solve problems in 4 of 5 questions.	Given 5 problems, students will correctly identify and apply the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle, including the geometric mean, to solve problems in 4 of 5 questions.	Given 5 problems, students will correctly apply the relationships in special right triangles (30º-60º-90º and 45º-45º-90º) and the Pythagorean Theorem, including Pythagorean triples, to solve problems in 4 of 5 questions.
Intervention & Extension	Completed notes for the unit posted on canvas. Video notes posted on canvas. Activity to practice concepts learned during the class.	Completed notes for the unit posted on canvas. Video notes posted on canvas. Activity to practice concepts learned during the class.	Completed notes for the unit posted on canvas. Video notes posted on canvas. Activity to practice concepts learned during the class.	Completed notes for the unit posted on canvas. Video notes posted on canvas. Activity to practice concepts learned during the class.
Resources	straightedge, blank paper, whiteboard, response cards, slide deck, student activity pages	straightedge, blank paper, whiteboard, response cards, slide deck, student activity pages	straightedge, blank paper, whiteboard, response cards, slide deck, student activity pages	straightedge, compass, blank paper, whiteboard, response cards, slide deck, student activity pages