Berea MS Lesson Plan 2025 - 2026 **Week: # 3** August 24 to 28, 2028 **Teacher**: Mr. Danku **Grade/Subject: Math 8**

Unit Title:	Congruence and Similarity
Unit Vocabulary:	Congruence, similarity, quadrants, preimage, image, transformation, translation, vertical, horizontal
Upcoming Common Assessments (MasteryConnect):	Transformation quiz 1 (August 25, 2026) Congruence and Similarity quiz 2 (September 1, 2026)

	Standard(s) + Learning Objective	**Activating Experience** (Opening, may include "Scholar Starter")	**Learning Experience** (Work Time: SB Materials and Resources, Vocab, Scaffolds/Supports, SWRL, Costas)	**Formative or Summative Assessment(s)**	**Summarizing Experience** (Closing)	**WICOR, AVID and/or ELLevation Strategies** (aligned with learning objective)
MONDAY	**Standard** (write out)**:** 8. MGSR.3.5: Rotate geometric figures 90, 180, 270 degrees both clockwise and counterclockwise, about the origin in a coordinate plane **Learning Objective** **Skill (what), Content (why), Product (how):** Scholars will identify rotations on the coordinate plane by observing how the position and	**Scholar Starter** Bell Ringer cycle 1 Day 6 Activating Strategy Carousel	***Essential Question:*** *How does rotating a figure around a point change its position and orientation on the coordinate plane?* **Standards Based Materials & Resources:** • Coordinate grid paper (printed or digital) • Pre-drawn coordinate planes with figures • Rulers and protractors (for measuring angles) • Tracing paper • Colored pencils or markers (multiple colors) • Lesson vocabulary sheet	McGraw-Hill page 70 reflect How can you explain to a classmate how a rotation keeps the size and shape the same? Think 30 scs Turn and talk Then share your partner response	Summarize main ideas of the lesson By answering the essential question in notebook	WICOR **W- Write-** Each scholar will write responses to prompt from activity **C-Collaboration** Students work in groups **O- Organize** Scholars organize thoughts and responses as they

	orientation of a figure change around a point.		You do McGraw-Hill text page 69 # 3 to 7 Page 70 # 11 to 13 **Content/Academic Vocabulary:** Rotation, Center of Rotation, angles of Rotation, Clockwise, Counterclockwise, Origin, Image, Preimage, Coordinate Plane, Transformation,, Congruent, Vertex, Quadrant. **ILAP/IEP/504 Scaffolds & Supports:** -Sentence starters for MLs -Use of hands on resources such as patty paper -Visuals presentations, videos -Translation of key words in spanish (MLs) **Opportunities to SWRL:** **S-** Students discussion in group or partner work lesson in McGraw Hill **W-** Students write short responses to questions in McGraw Hill			work together and response to prompt on activity **R-Read** Read the content in the text. Quick write

			R- Read the coordinates from the preimage and image after rotation as well as the content from text. **L-** Listen to pair discussion. rotation. **Costa's Levels of Thinking/Questioning:** **Level 1:** Identify the coordinates of a point on the coordinate plane. **Level 2:** Determine if a figure was rotated clockwise or counterclockwise and by how many degrees. **Level 3:** Justify why a figure's image is congruent to its preimage after a			
T U E S D A Y	**Standard** (write out)**:** 8. MGSR.3.5: Rotate geometric figures 90, 180, 270 degrees both clockwise and counterclockwise, about the origin in a coordinate plane **Learning Objective** **Skill (what), Content (why), Product (how):**	**Revision of Translation, reflection and rotation**	**Essential Questions** **Standards Based Materials & Resources:** Quiz 1	Check the students individual activity to see if the understood the lesson Exit Ticket Reveal Question		Quick Write - WICOR (writing and Inquiry) Think Pair share WICOR (collaboration & oral language practice) Focus on patterns and strategy WICOR (Inquiry and organization)

	Students will demonstrate 80% mastery on Unit 2 Quiz 1 by correctly identifying and applying translations, reflections, and rotations.		**Content/Academic Vocabulary:** Rotation, Center of Rotation, angles of Rotation, Clockwise, Counterclockwise, Origin, Image, Preimage, Coordinate Plane, Transformation,, Congruent, Vertex, Quadrant. **ILAP/IEP/504 Scaffolds & Supports:** -Use of hands on resources such as patty paper -Visuals presentations, videos -Translation of key words in spanish (MLs) -Use of anchor chart to support., **Opportunities to SWRL:** **S-** The students explains rotation using academic vocabulary **W-** Write about mathematical patterns and concepts **R-** Read diagrams, definitions and peers work . **L-** The students listen to each other. **Costa's Levels of Thinking/Questioning:** **Level 1:** What is the rule for rotating a point 90° clockwise about the origin?			

			Level 2: Compare the results of rotating a point 90° clockwise vs. 90° counterclockwise. What do you notice? **Level 3:** A student says that rotating a shape 360° is the same as rotating it 0°. Is the student correct? Explain why or why not.			
WEDNESDAY	**Standard** (write out)**:** **8.MGSR.2.3:** Identify the congruent corresponding angles of similar polygons. **Learning Objective** **Skill (what), Content (why), Product (how):** I can determine a sequence of transformations that maps one figure to another figure.	**Scholar Starter** Cycle 1 day 7 Activating Strategy	***Essential Question*** How can I use a sequence of transformations to move one figure into the exact position and orientation of another figure? **Standards Based Materials & Resources:** • Coordinate grid paper (printed or digital) • Pre-drawn coordinate planes with figures • Rulers and protractors (for measuring angles) • Tracing paper • Colored pencils or markers (multiple colors) • Lesson vocabulary sheet **Lesson** **Content/Academic Vocabulary:**	Exit Ticket Explain how a sequence of transformations can prove two figures are congruent. Include a congruence statement.		**WICOR** • **W:** Write a congruence statement and justify the sequence of transformations. • **I:** Explain how rigid transformations prove congruence. • **C:** Think-Pair-Share to

			Transformation, Reflection, rotation, dilation, translation, image, preimage, prime, rigid motion, line of reflection, scale factor, similar, Congruent, preserve, orientation, **<u>ILAP/IEP/504 Scaffolds & Supports:</u>** Sentence starters or frames, images, keywords in home language, word wall, pair MLs with english speakers **<u>Opportunities to SWRL:</u>** **<u>Costa's Levels of Thinking/Questioning:</u>** **DOK Level 1 (Recall & Reproduction)** Define transformation in your own words. Identify the pre-image and image in a diagram. Name all the rigid motions. State what happens to a figure in a translation.			compare transformation sequences. ● **O:** Use a flow map to organize the sequence of transformations. ● **R:** Read and annotate a transformation problem, identifying key information. **ELLevation Strategies** ● Preteach vocabulary with visuals (translation, rotation,

			DOK Level 2 Compare and contrast congruent and similar figures. Explain how you know if a transformation is a reflection or a rotation. Describe what stays the same and what changes in a dilation. Use coordinates to show how a figure moves during a translation. **DOK Level 3 (Strategic Thinking)** Given a triangle with coordinates, perform a 90° rotation and explain the coordinate changes. Justify why translations, reflections, and rotations are all rigid motions. Create a diagram that shows a figure, its line of reflection, and its image. Explain how the line works.			reflection, congruent, transformation). ● Use color-coded figures to match corresponding vertices. ● Provide sentence frames (e.g., "The figures are congruent because..."). ● Turn and Talk using academic vocabulary. ● Use frequent checks for understanding (thumbs up/down or

						whiteboards).
THURSDAY	**Standard** (write out)**:** **8.MGSR.2.2:** Determine if two-dimensional figures are congruent or similar. **Learning Objective** **Skill (what), Content (why), Product (how):** I can use mathematical modeling to show that two figures are congruent using a sequence of transformations using congruent statements.	**Scholar Starter** Cycle 2 day 1 **Option 1 (Recommended) – Which Transformation?** Display two congruent figures on a coordinate plane. Ask: **How could Figure A be moved to match Figure B?** Students predict the sequence of transformations and share with a partner.	***Essential Question*** How can I use a sequence of transformations to prove that two figures are congruent, and how do I communicate this proof using mathematical notation? **Standards Based Materials & Resources:** • Printed diagrams or projected images showing architectural elements in starting and ending positions • Recording sheet for pairs • Pencils • Paper cutouts of the starting architectural element **Lesson Content/Academic Vocabulary:** Transformation, Reflection, rotation, dilation, translation, image, preimage, prime, rigid	A school is placing the same logo on two different entrance signs. The second logo was created by translating the original logo **5 units right** and **3 units up**. 1. Is the new logo congruent to the original? **Yes or No** 2. Write the sequence of transfor	**Claim-Evidence-Reasoning (CER)** Students complete: • **Claim:** The figures are congruent. • **Evidence:** Describe the sequence of transformations. • **Reasoning:** Explain why rigid transformations preserve congruence.	Sentence stem and word bank WICOR **W**- Students are asked to **write** the definition or take notes on the hashtags/vocabulary related to dilation **I- Inquiry** The use of questions that deepen thinking (DOK 2 and DOK 3) encourages students to analyze, predict, and explain concepts: **C – Collaboration** Students are encouraged to

			motion, line of reflection, scale factor, similar, Congruent, preserve, orientation, **<u>ILAP/IEP/504 Scaffolds & Supports:</u>** Real world example of dilation (practical examples) Visual representations Translations of key words in scholars' home language (MLs) Fill in the blank with word bank/ sentence stem(MLs) **<u>Opportunities to SWRL:</u>** **S-** Students discussion in group or partner work **W-** The students will write the response to the prompt in their notebook **R-** Read the coordinates from the preimage and image after reflection. Read the content from text. Also read definitions to hashtags in activating strategy **L-** Listen to pair discussion. **<u>Costa's Levels of</u>**	mations used. 3. Write a congruence statement for the figures. 4. Explain in one or two sentences how the transformations prove the figures are congruent.		**discuss their hashtags in small groups or with partners**, promoting peer interaction and shared reasoning. **O- Organization** The students organize information in their notebook or matching the correct hashtags with definitions **R- Read** Scholars read the definitions to match to the **hashtags/vocabulary** related to dilation Students transition to the **McGraw Hill textbook (p.77 to 80)** to apply the geometric concept of dilation on the

			<u>Thinking/Questioning:</u> **Level 1:** What is the scale factor in the given dilation. Did the figure enlarge or reduce to form the image given? **Level 2:** A figure is dilated using a scale factor less than 1. Describe how the image will look compared to the original triangle. How do the side lengths and angles change? **Level 3:** A student claims that a dilation can change both the size and the shape of a figure. Do you agree or disagree? Justify your answer with reasoning and examples. Write a written argument using vocabulary like *proportional, scale factor, shape, angles*.			coordinate plane, which incorporates **content reading and application**
F R I D A Y	**Standard** (write out)**:** **8.MGSR.3.6:** Create a dilation using a given scale factor and describe the effect of a dilation. **<u>Learning Objective</u>** **Skill (what), Content (why), Product (how):** can create a dilation using a given scale factor and describe how the dilation affects the size of a figure	**Notice & Wonder** Display the following figures to students: **Figure A:** A triangle with side lengths 3, 4, and 5. **Figure B:**	***Essential Question:*** *How does a dilation change a figure, and what stays the same after the transformation?* **<u>Standards Based Materials & Resources:</u>** Anchor chart: Congruent vs. Similar Colored pencils/highlighters	**Exit Ticket** 1. A triangle has side lengths of 4, 6, and 8 units. A dilation with a scale factor of 2 is applied.	**Claim-Evidence-Reasoning (CER):** **Claim:** A dilation changes the size of a figure. **Evidence:** Use an example from class.	**Writing:** Describe the effects of a dilation in complete sentences. **Inquiry:** Investigate patterns in side lengths after dilations.

	by comparing corresponding side lengths and angles.	A larger triangle with side lengths 6, 8, and 10. (Do not tell students that a dilation has occurred.) **Prompt:** **NOTICE** What do you notice about the two figures? **WONDER** What do you wonder about the figures? **Turn & Talk** Discuss: If Figure A became Figure B, what transformation might have happened?	# Activity **Content/Academic Vocabulary:** dilation, scale factor, transformation, preimage, image, enlargement, reduction, corresponding sides, corresponding angles, proportional, similar figures, center of dilation. **Costa's Levels of Thinking/Questioning** Level 1 (Recall): What is a dilation? What is a scale factor? Level 2 (Skill/Concept): How does a scale factor greater than 1 affect a figure? How does a scale factor less than 1 affect a figure? Level 3 (Strategic Thinking): How can you determine whether a transformation is a dilation, enlargement, or reduction? **ILAP/IEP/504 Scaffolds & Supports:** Provide guided notes. Use color-coded corresponding angles and sides. Preteach vocabulary with visuals. Allow use of manipulatives and graphic organizers.	What are the new side lengths? 2. What happens to the angle measures during a dilation?	**Reasoning:** Explain why the figure remains similar after the dilation.	**Collaboration:** Partner discussions and graphing activities. **Organization:** Record observations in a foldable or graphic organizer. **Reading:** Analyze mathematical diagrams and examples.

		Bridge to the Learning Objective Ask: How can we use a scale factor to create a larger or smaller version of a figure while keeping its shape the same?	Provide sentence stems: ● "The triangles are similar because..." ● "The corresponding angles are..." Pair students strategically. Chunk directions into smaller steps. Provide extended time when required. Frequent teacher check-ins. Allow calculator use if accommodations require. **<u>Opportunities to SWRL:</u>** **Speaking:** Describe how a figure changes after a dilation using mathematical vocabulary. **Writing:** Explain the effect of a dilation on side lengths and angles. **Reading:** Read examples and analyze diagrams of dilated figures. **Listening:** Listen to peer explanations and teacher modeling of dilation examples.			