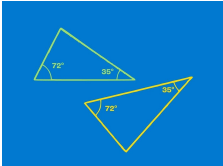
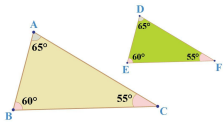
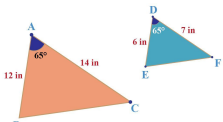




Unit Title:	Congruence and Similarity
Unit Vocabulary:	Congruence, similarity, quadrants, preimage, image, transformation, translation, vertical, horizontal
Upcoming Common Assessments (MasteryConnect):	Transformation quiz 2 (Sept., 2026) Congruence and Similarity quiz 2

	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)
M O N D A Y	Standard (write out): 8.MGSR.2.3: Identify the congruent corresponding angles of similar polygons. <u>Learning Objective</u> Skill (what), Content (why), Product (how): Scholars can determine a sequence of transformations that maps one figure to another figure. PUBLIC HOLIDAY	PUBLIC HOLIDAY	PUBLIC HOLIDAY <i>Essential Question</i> <u>Standards-Based Materials & Resources:</u> <u>Content/Academic Vocabulary:</u> <u>ILAP/IEP/504 Scaffolds & Supports:</u> <u>Opportunities to SWRL:</u> <u>Costa's Levels of Thinking/Questioning:</u>	Exit Ticket PUBLIC HOLIDAY	Share response to exit ticket out loud PUBLIC HOLIDAY	WICOR, AVID, and ELL-Elevation Strategies Writing: ELL-Elevation Strategies: PUBLIC HOLIDAY

T U E S D A Y	standard (write out): 8.MGSR.2.2: Determine if two-dimensional figures are congruent or similar. <u>Learning Objective</u> Skill (what), Content (why), Product (how): Scholars will be able to determine whether a pair of triangles is similar using Angle-Angle Similarity by identifying two pairs of congruent corresponding angles and justifying their conclusion with a similarity statement, with at least 80% accuracy.	Bell Ringer cycle 2 Day2 Activating Experience — 5 Minutes “Same Shape, Different Size?”  Similar Figures - Same shape, but not the same size. - Corresponding angles are equal. - Corresponding sides are proportional. $\frac{a}{d} = \frac{b}{e} = \frac{c}{f}$ Ask scholars to compare the triangles without measuring the sides. Have scholars discuss what they notice about the angles.	<i>Essential Question</i> <i>How can we determine whether two triangles are similar using only their angle measures?</i> <u>Standards Based Materials & Resources:</u> Use the appropriate similarity criterion to determine whether two triangles are similar. <u>Content/Academic Vocabulary:</u> <table><tr><th>Term</th><th>Definition</th></tr><tr><td>Similar figures</td><td>Figures that have the same shape but may have different sizes.</td></tr><tr><td>Corresponding angles</td><td>Angles in matching positions in two figures.</td></tr><tr><td>Congruent angles</td><td>Angles that have the same measure.</td></tr><tr><td>Angle-Angle</td><td>If two pairs of corresponding angles in two triangles are</td></tr></table>	Term	Definition	Similar figures	Figures that have the same shape but may have different sizes.	Corresponding angles	Angles in matching positions in two figures.	Congruent angles	Angles that have the same measure.	Angle-Angle	If two pairs of corresponding angles in two triangles are	Exit Ticket Assessment Criteria: - Identifies two pairs of corresponding angles. - Correctly uses the similarity symbol. - Provides a valid AA justification. - Correctly matches the vertices.	Summarizing Experience — 2 Minutes “One Sentence, One Proof” Scholars complete: “Two triangles are similar by AA Similarity when _____ and _____.”	WICOR Strategy: Writing to Learn Scholars write a brief explanation using the sentence stem: “The triangles are similar because _____. I know this because _____.” ELlevation Connection: Use sentence stems and a word bank to support multilingual learners in explaining their reasoning.
Term	Definition															
Similar figures	Figures that have the same shape but may have different sizes.															
Corresponding angles	Angles in matching positions in two figures.															
Congruent angles	Angles that have the same measure.															
Angle-Angle	If two pairs of corresponding angles in two triangles are															

		Student Actions: • Think independently. • Share observations with a partner. • Record one prediction in their notebook. Direct Instruction — I Do, We Do, You Do I Do — 8 Minutes Teacher models the process. We Do — 7 Minutes Teacher and scholars solve together. You Do — 8 Minutes Scholars work independently.	Similarity (AA) congruent, the triangles are similar. Similarity statement A statement showing that two figures are similar, using the symbol $\sim$. <u>ILAP/IEP/504 Scaffolds & Supports:</u> Scaffold 1: Color-Coded Corresponding Angles Doable: Use the same color to mark each pair of corresponding angles. Example: Mark $\angle A$ and $\angle D$ in blue, and $\angle B$ and $\angle E$ in green. Scholars then match the vertices to write the similarity statement. Scaffold 2: Sentence Stem Doable: Provide a partially completed justification. Example: "$\angle \underline{\hspace{1cm}} \cong \angle \underline{\hspace{1cm}}$ and $\angle \underline{\hspace{1cm}} \cong \angle \underline{\hspace{1cm}}$, so $\triangle \sim \triangle \underline{\hspace{1cm}}$ by $\underline{\hspace{1cm}}$." Scaffold 3: Vocabulary Support			
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		Doable: Provide a word bank with the key terms. Example: corresponding angles, congruent, similar, AA Similarity. <u>Opportunities to SWRL:</u> Speaking: Scholars explain to a partner why two triangles are similar. Writing: Scholars write a similarity statement and a mathematical justification. Reading: Scholars read angle measures and identify corresponding angles from a diagram. Listening: Scholars listen to a partner's explanation and check whether the reasoning uses two pairs of congruent angles. Sentence Stem: "Triangle ____ is similar to triangle ____ because ____ and ____ are congruent." <u>Costa's Levels of Thinking/Questioning:</u> Level 1: Gathering What does the symbol ~\sim~ mean?			
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			Level 1: Which angles are congruent in the diagram? Gathering Level 2: How do you know which angles correspond? Processing Level 2: Why are two pairs of congruent angles enough to prove similarity? Processing Level 3: Two triangles have angles of 40° and 70°, and another pair has angles of 40° and 70°. Are they similar? Justify your answer. Applying			
W E D N E S D A Y	Standard (write out): 8.MGSR.2.2: Determine if two-dimensional figures are congruent or similar. <u>Learning Objective</u> Skill (what), Content (why), Product (how): Scholars will be able to reason and prove that two triangles are	Scholar Starter Cycle 2 day 3 Activating Experience — 5 Minutes Are These Triangles Similar?" Teacher Actions: Display two pairs of triangles: one pair with the same	<i>Essential Question</i> <i>How can we prove that two triangles are similar using only two pairs of congruent angles?</i> <u>Standards-Based Materials & Resources:</u> <u>Content/Academic Vocabulary:</u> Similar triangles: Triangles that have the same shape but may have different sizes. Corresponding angles: Angles in matching positions in two figures. Congruent angles: Angles that have the same measure. Angle-Angle (AA) criterion: If two pairs of corresponding angles in two triangles are congruent, the triangles are similar. Similarity statement: A statement showing that two	Formative Assessment — 10 Minutes “Similarity Detective” Exit Practice Directions: For each problem,	Exit Ticket How does AA help us prove triangles are similar without knowing all their side lengths	WICOR Strategy: Writing to Learn Scholars write a brief explanation using the sentence stem: “The triangles are similar because _____ I know this because _____

	similar using the Angle-Angle (AA) criterion by identifying two pairs of congruent corresponding angles and writing a valid similarity statement with at least 80% accuracy.	shape but different sizes, and one pair with different shapes. Ask scholars to compare the triangles without measuring the sides. Have scholars discuss what they notice about the angles. Student Actions: Think independently. Discuss observations with a partner. Record one prediction in their notebook. Guiding Questions: What makes two triangles similar? Can two triangles be the same shape but different sizes? What	figures are similar, using the symbol $\sim$. Proof: A mathematical explanation that uses evidence and reasoning to support a conclusion. <u>ILAP/IEP/504 Scaffolds & Supports:</u> <table><tr><th>Scaffold / Support</th><th>Doable Strategy</th><th>1 Example</th></tr><tr><td>Color-coded angles</td><td>Use the same color to mark corresponding angles.</td><td>Mark $\angle A$ and $\angle D$ in blue, and $\angle B$ and $\angle E$ in green.</td></tr><tr><td>Sentence stems</td><td>Provide a partially completed proof.</td><td>"$\angle \underline{\hspace{1cm}} \cong \angle \underline{\hspace{1cm}}$ and $\angle \underline{\hspace{1cm}} \cong \angle \underline{\hspace{1cm}}$, so $\triangle \sim \triangle \underline{\hspace{1cm}}$ by $\underline{\hspace{1cm}}$."</td></tr><tr><td>Vocabulary word bank</td><td>Provide key academic terms.</td><td>corresponding angles, congruent, similar, AA, proof</td></tr></table>	Scaffold / Support	Doable Strategy	1 Example	Color-coded angles	Use the same color to mark corresponding angles.	Mark $\angle A$ and $\angle D$ in blue, and $\angle B$ and $\angle E$ in green.	Sentence stems	Provide a partially completed proof.	" $\angle \underline{\hspace{1cm}} \cong \angle \underline{\hspace{1cm}}$ and $\angle \underline{\hspace{1cm}} \cong \angle \underline{\hspace{1cm}}$, so $\triangle \sim \triangle \underline{\hspace{1cm}}$ by $\underline{\hspace{1cm}}$."	Vocabulary word bank	Provide key academic terms.	corresponding angles, congruent, similar, AA, proof	determine whether the triangles are similar using AA. Show your reasoning. <table><tr><th>P</th><th>Given</th><th>Task</th></tr><tr><td>1</td><td>$\triangle ABC$: $\angle A = 50^\circ$, $\angle B = 60^\circ$; $\triangle DEF$: $\angle D = 50^\circ$, $\angle E$</td><td>Write a similarity statement and justify.</td></tr></table>	P	Given	Task	1	$\triangle ABC$: $\angle A = 50^\circ$, $\angle B = 60^\circ$; $\triangle DEF$: $\angle D = 50^\circ$, $\angle E$	Write a similarity statement and justify.	ELlevation Connection: Use sentence stems and a word bank to support multilingual learners in explaining their reasoning.
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		information would help us prove that two triangles are similar?	Step-by-step checklist Break the proof into smaller tasks. 1. Identify angles → 2. Match vertices → 3. Write statement → 4. Justify. <u>Opportunities to SWRL:</u> Speaking: Scholars explain to a partner why two triangles are similar. Writing: Scholars write a similarity statement and a mathematical justification. Reading: Scholars read angle measures and identify corresponding angles. Listening: Scholars listen to a partner's proof and check whether it uses AA. <u>Costa's Levels of Thinking/Questioning:</u> <u>Level 1: Gathering</u> <u>What does the symbol $\sim$ mean?</u> <u>Level 1: Gathering</u> <u>Which angles are congruent in the diagram?</u> <u>Level 2: Processing</u> <u>How do you know which angles correspond?</u>	= 60° 2 $\triangle GHI$: Determine if the triangle is similar and explain. 3 $\triangle MNO$: Determine whether the triangles are		
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			Level 2: Processing g Why are two pairs of congruent angles enough to prove similarity? Level 3: Applying ng Two triangles have angles of 40° and 70°, and another pair has angles of 40° and 70°. Are they similar? Justify your answer. Level 3: Applying ng How could you prove two triangles are similar if the side lengths are not given? ΔP QR: ∠P = 40°, ∠ Q = 70° simil ar. Expl ain why or why not.			
THURSDAY	Standard (write out): 8.MGSR.2.2: Determine if two-dimensional figures are congruent or similar. Learning Objective <i>Skill (what), Content (why), Product (how):</i> Scholars will be able to describe the relationship between the angles and sides of similar triangles by identifying	Scholar Starter: Predict Before You Plot Cycle review Activating Experience — 5 Minutes Teacher Actions: 1. Display two triangles with the same shape but	Essential Question How are the angles and sides of similar triangles related? Standards Based Materials & Resources: Content/Academic Vocabulary: Similar triangles: Triangles that have the same shape but may have different sizes. Corresponding angles: Angles in matching positions in two figures. Corresponding sides: Sides in the same position in two figures. Congruent angles: Angles that have the same measure. Proportional sides: Sides whose lengths have the same ratio. Scale factor: The ratio used to compare corresponding side lengths. Similarity statement: A statement	Formative Assessment — 10 Minutes Directions: For each problem, describe the relationship between the angles and sides of the similar triangles. Pr ob le m Given Informa tion T a s k	Scholars complete: “In similar triangles, corresponding angles are _____, and corresponding sides are _____.”	WICOR/AVID Scholars write a brief explanation using the sentence stem: “The triangles are similar because their corresponding angles

	corresponding parts, explaining that corresponding angles are congruent and corresponding sides are proportional, and using a similarity statement to justify their reasoning with at least 80% accuracy.	different sizes. 2. Ask scholars to compare the triangles without measuring every side. 3. Have scholars discuss what they notice about the angles and sides.	showing that two figures are similar, using the symbol $\sim$. ILAP/IEP/504 Scaffolds & Supports: <table><thead><tr><th>Scaffold / Support</th><th>Doable Strategy</th><th>1 Example</th></tr></thead><tbody><tr><td>Color-coded corresponding parts</td><td>Use the same color to mark matching angles and sides.</td><td>Mark $\angle A$ and $\angle D$ in blue, and AB and DE in green.</td></tr><tr><td>Sentence stem</td><td>Provide a partially completed explanation.</td><td>"Corresponding angles are ____, and corresponding sides are ____ because ____."</td></tr><tr><td>Vocabulary word bank</td><td>Provide key academic terms.</td><td>congruent, proportional, corresponding, scale factor, similar</td></tr><tr><td>Ratio organizer</td><td>Provide a table for comparing side lengths.</td><td></td></tr></tbody></table> Opportunities to SWRL: Speaking: Scholars explain to a partner how the angles and sides of similar triangles are related. Writing: Scholars write a sentence describing the relationship between corresponding parts.	Scaffold / Support	Doable Strategy	1 Example	Color-coded corresponding parts	Use the same color to mark matching angles and sides.	Mark $\angle A$ and $\angle D$ in blue, and AB and DE in green.	Sentence stem	Provide a partially completed explanation.	"Corresponding angles are ____, and corresponding sides are ____ because ____."	Vocabulary word bank	Provide key academic terms.	congruent, proportional, corresponding, scale factor, similar	Ratio organizer	Provide a table for comparing side lengths.		1 $\triangle ABC \sim \triangle DEF$; $AB = 3$, $DE = 6$; $\angle A = 40^\circ$, $\angle D = 40^\circ$ Identify the corresponding parts and state their relationship. 2 $\triangle GHI \sim \triangle JKL$; $GH = 5$, $JK = 10$; $HI = 7$, $KL = 14$ Find the scale factor and explain how the corresponding sides are related. 3 $\triangle MNO \sim \triangle PQR$; $\angle M = 50^\circ$, $\angle P = 50^\circ$ Explain what can be said about the corresponding angles and sides	are _____ and their corresponding sides are _____." ELL/ELLevation Strategies Use sentence stems, a word bank, and color-coded corresponding parts to support multilingual learners in explaining their reasoning.
Scaffold / Support	Doable Strategy	1 Example																		
Color-coded corresponding parts	Use the same color to mark matching angles and sides.	Mark $\angle A$ and $\angle D$ in blue, and AB and DE in green.																		
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			• Reading: Scholars read a similarity statement and identify matching vertices. • Listening: Scholars listen to a partner’s explanation and check whether it includes both angles and sides. Sentence Stem: “Corresponding angles are ___, while corresponding sides are ___.” Costa's Levels of Thinking/Questioning: Level 1: Gathering What does the symbol $\sim$ mean? Level 1: Gathering Which sides correspond in $\triangle ABC \sim \triangle DEF$? Level 2: Processing How do you know which angles and sides correspond? Level 2: Processing Why are corresponding sides proportional in similar triangles?			
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			Level 3: Applying If one triangle has a side length of 4 and the corresponding side of a similar triangle is 12, what is the scale factor?			
			Level 3: Applying How would you explain the relationship between the angles and sides of similar triangles to someone who has never studied similarity?			

F R I D A Y	Standard (write out): 8.MGSR.2.2: Determine if two-dimensional figures are congruent or similar Learning Objective <i>Skill (what), Content (why), Product (how):</i> Scholars will be able to find an unknown length or distance using proportions or similar triangles by identifying corresponding sides, setting up a proportion, and solving for the missing value with at least 80% accuracy.	Scholar Starter: cycle Review Activating Experience — 5 Minutes I Do — Teacher Modeling (8 Minutes) We Do — Guided Practice (7 Minutes) You Do — Independent Practice (8 Minutes)	Essential Question How can similar triangles and proportions help us find an unknown length or distance? Standards Based Materials & Resources: Content/Academic Vocabulary: Similar triangles: Triangles that have the same shape but may have different sizes. Corresponding sides: Sides in the same position in two figures. Proportion: An equation that shows two ratios are equal. Ratio: A comparison of two quantities by division. Scale factor: The ratio used to compare corresponding side lengths. Unknown length: A measurement that is missing and needs to be determined. Cross multiplication: A method used to solve a proportion. ILAP/IEP/504 Scaffolds & Supports: <table><tr><th>Scaffold / Support</th><th>Doable Strategy</th><th>1 Example</th></tr><tr><td>Color-coded corresponding sides</td><td>Use the same color to mark matching sides.</td><td>Mark the height sides in blue and the shadow sides in green.</td></tr><tr><td>Proportion organizer</td><td>Provide a template for matching corresponding sides.</td><td> small height large height $\frac{\text{small shadow}}{\text{small height}} = \frac{\text{large shadow}}{\text{large height}}$ </td></tr></table>	Scaffold / Support	Doable Strategy	1 Example	Color-coded corresponding sides	Use the same color to mark matching sides.	Mark the height sides in blue and the shadow sides in green.	Proportion organizer	Provide a template for matching corresponding sides.	small height large height $\frac{\text{small shadow}}{\text{small height}} = \frac{\text{large shadow}}{\text{large height}}$	Formative Assessment — 10 Minutes Directions: Find each unknown length using a proportion. Show your work and explain your reasoning.	Scholars complete: “To find an unknown length using similar triangles, I first _____, then _____.”	WICOR/AVID Scholars write a brief explanation using the sentence stem: “I know the triangles are similar because _____. I used the proportion _____ to find the unknown length.” Elevation Connection: Use sentence stems, a word bank, and a step-by-step organizer to support multilingual learners in explaining their solutions.
Scaffold / Support	Doable Strategy	1 Example													
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			Sentence stem Provide a partially completed explanation. Step-by-step checklist Break the problem into smaller tasks. “The triangles are similar because _____. The proportion is _____, so $x = x = x =$ _____.” 1. Identify sides → 2. Match sides → 3. Set proportion → 4. Solve → 5. Check. Opportunities to SWRL: Speaking: Scholars explain to a partner how they matched corresponding sides. Writing: Scholars write a proportion and explain their solution. Reading: Scholars read a word problem and identify known and unknown measurements. Listening: Scholars listen to a partner’s explanation and check whether the proportion is set up correctly. Costa’s Levels of Thinking / Questioning Level 1: Gathering What is a proportion? Level 1: Gathering Which sides correspond in the two triangles?			
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			Level 2: Why must corresponding sides Processin be matched in the same order? g Level 2: How does the scale factor help Processin you find the unknown length? g Level 3: A person who is 5 feet tall casts a Apply 3-foot shadow. A tree casts a ing 15-foot shadow. How tall is the tree? Explain your reasoning.			
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