

Math – Geometry - Unit 2 – ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 1 CCSS: G.C.1 WIDA ELDS: 3 Speaking Writing	Generate proofs that demonstrate that all circles are similar.		Sequence the steps and explain proofs that demonstrate that all circles are similar orally and in writing <i>using a Teacher Modeling, a word wall, and Partner work.</i>		VU: Proof, radius/radii, translate, dilation, congruent
					LFC: Embedded clauses
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Sequence the steps and explain proofs that demonstrate that all circles are similar orally and in writing in L1 and/or use gestures, Illustrations/diagrams/drawings and selected technical words.	Sequence the steps and explain proofs that demonstrate that all circles are similar orally and in writing in L1 and/or use selected technical vocabulary in phrases and short sentences.	Sequence the steps and explain proofs that demonstrate that all circles are similar orally and in writing using key, technical vocabulary in simple sentences.	Sequence the steps and explain proofs that demonstrate that all circles are similar orally and in writing using key, technical vocabulary in expanded sentences.	Sequence the steps and explain proofs that demonstrate that all circles are similar orally and in writing using technical vocabulary in complex sentences.
Learning Supports	Teacher Modeling Math Journal /dictionary Partner work Word/Picture Wall L1 text and/or support Illustrations Cloze sentences	Teacher Modeling Math Journal /dictionary Partner work Word/Picture Wall L1 text and/or support Sentence frames	Teacher Modeling Math Journal /dictionary Partner work Sentence Starter Word wall	Teacher Modeling Partner work	Teacher Modeling

Math – Geometry - Unit 2 – ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 2 CCSS: G.SRT.1 WIDA ELDS: 3 Speaking Reading Writing	Justify the properties of dilations given by a center and a scale factor. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged (the dilation of a line segment is longer or shorter in the ratio given by the scale factor).		<u>Demonstrate comprehension</u> of the properties of dilations written word problems by drawing the model <u>in order to answer questions using models, Charts and word/symbol banks.</u> <u>Explain</u> in writing the properties of dilations <i>using word wall, Math Journal and sentence frames.</i>		VU: Scale factor, image, dilation, origin, hypotenuse
					LFC: Future tense, cause effect statements
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Demonstrate comprehension of written word problems in L1 and/or using simplified word problems with visuals. Explain in writing the properties of dilations in L1 and/or use gestures, examples and selected technical words.	Demonstrate comprehension of written word problems in L1 and/or using simplified word problems. Explain in writing the properties of dilations in L1 and/or use selected technical vocabulary in phrases and short sentences.	Demonstrate comprehension of written word problems by drawing the <u>model</u> in order to answer questions. Explain in writing the properties of dilations using key technical vocabulary in a series of simple sentences.	Demonstrate comprehension of written word problems by drawing the <u>model</u> in order to answer questions. Explain in writing the properties of dilations using key, technical vocabulary in some complex sentences.	Demonstrate comprehension of written word problems by drawing the <u>model</u> in order to answer questions. Explain in writing the properties of dilations using technical vocabulary in complex sentences.
Learning Supports	Teacher Modeling Charts Illustrations/diagrams/drawings Word/Picture Wall L1 text and/or support Math Journal Cloze sentences	Teacher Modeling Charts Illustrations/diagrams/drawings Word/Picture Wall L1 text and/or support Sentence frames Math Journal	Teacher Modeling Charts Sentence Starter Word wall Math Journal	Teacher Modeling Charts Math Journal	Teacher Modeling Charts

Math – Geometry - Unit 2 – ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 3 CCSS: G.SRT.2 WIDA ELDS:3 Writing Reading	Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.		Justify, answers by explaining, that two triangles are similar using the similarity transformations <i>using a model</i> , Math Journal, Sentence Starters, and Partner work .		VU: Given, valid, justify, coordinate plane, similarity statement
					LFC: Cause and effect statements and signal words
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Justify answers by explaining the similarity transformations in L1 and/or use gestures, examples and selected technical words.	Justify answers by explaining the similarity transformations in L1 and/or use selected technical vocabulary in phrases and short sentences.	Justify answers by explaining the similarity transformations using key, technical vocabulary in a series of simple sentences.	Justify answers by explaining the similarity transformations using key, technical vocabulary in expanded and some complex sentences.	Justify answers by explaining the similarity transformations using technical vocabulary in multiple, complex sentences.
Learning Supports	Teacher Modeling Math Journal Partner work Word/Picture Wall L1 text and/or support Illustrations Cloze sentences	Teacher Modeling Math Journal Partner work Word/Picture Wall L1 text and/or support Sentence frames	Teacher Modeling Math Journal Partner work Sentence Starter Word wall	Math Journal Partner work	Math Journal

Math – Geometry - Unit 2 – ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 4 CCSS: G.SRT.3. WIDA ELDS: 3 Speaking Writing	Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.		Explain in writing how Justify the AA criterion for similar triangles using properties of similarity transformations can establish similarity in triangles <i>using an applet, Manipulatives, a word wall and a model.</i> http://www.mathopenref.com/congruenttriangles.html		VU: Angle-angle criterion, ASA congruence test, similarity <hr/> LFC: Cause and effect transitional phrases, prepositional phrases <hr/> LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Explain in writing how the AA criterion can establish similarity in triangles in L1 and/or use gestures, examples and selected technical words.	Explain in writing how the AA criterion can establish similarity in triangles in L1 and/or use selected technical vocabulary in phrases and short sentences.	Explain in writing how the AA criterion can establish similarity in triangles using key, technical vocabulary in simple sentences.	Explain in writing how the AA criterion can establish similarity in triangles using key technical vocabulary in expanded sentences.	Explain in writing how the AA criterion can establish similarity in triangles using technical vocabulary in complex sentences.
Learning Supports	Applet Teacher Modeling Manipulatives Partner work Word wall L1 text and/or support Pictures/illustrations Cloze sentences	Applet Teacher Modeling Manipulatives Partner work Word wall L1 text and/or support Sentence frames	Applet Teacher Modeling Manipulatives Partner work Sentence Starter Word wall	Applet Teacher Modeling Partner work	Applet Teacher Modeling Partner work

Math – Geometry - Unit 2 – ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 5 CCSS: G.CO.10, G.SRT.4 WIDA ELDS: 3 Speaking Writing	Prove theorems about triangles.		Sequence and explain the steps to prove theorems about triangles using a Graphic Organizers , a <i>word wall</i> , Illustrations/diagrams/drawings and Prompts .		VU: Symmetric, reflexive property, midpoint
					LFC: Mathematical statements: point T is the midpoint of...
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Sequence and explain the steps to prove theorems about triangles in L1 and/or use gestures, examples and selected technical words.	Sequence and explain the steps to prove theorems about triangles in L1 and/or use selected technical vocabulary in phrases and short sentences.	Sequence and explain the steps to prove theorems about triangles using key technical vocabulary in simple sentences.	Sequence and explain the steps to prove theorems about triangles using key, technical vocabulary in expanded sentences.	Sequence and explain the steps to prove theorems about triangles using technical vocabulary in complex sentences.
Learning Supports	Graphic Organizers Student-generated dictionary Partially completed proof Prompts Word wall L1 text and/or support Cloze sentences	Graphic Organizers Student-created dictionary Partially completed proof Prompts Word wall L1 text and/or support Sentence frames	Graphic Organizers Prompts Sentence Starter Word wall	Graphic Organizers	Graphic Organizers