

Geometry – Unit 1 – Math ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 1 CCSS: G.CO.1 WIDA ELDS: 3 Speaking Writing	Use the undefined notion of a point, line, distance along a line and distance around a circular arc to develop definitions for angles, circles, parallel lines, perpendicular lines and line segments.		Develop definitions for geometric terms orally and in writing using the notion of point, line, distance along a line and distance around a circular arc with <i>model software, a sentence frame, math journal and word wall.</i>		VU: Angles, circles, parallel lines, perpendicular lines and line segments, point, line, distance, circular arc LFC: Embedded clauses LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
	Language Objectives	Develop definitions orally and in writing for the geometric terms using technical vocabulary in sentences with embedded clauses in L1 and/or gestures, drawings and selected technical words.	Develop definitions orally and in writing for the geometric terms using technical vocabulary in sentences with embedded clauses in L1 and/or use selected technical vocabulary in phrases and short sentences.	Develop definitions orally and in writing for the geometric terms using key, technical vocabulary in a series of simple sentences.	Develop definitions orally and in writing for the geometric terms using key, technical vocabulary in some expanded sentences with embedded clauses.
Learning Supports	Teacher Modeling Math Journal/dictionary Demonstration Small group/triads Word/Picture Wall L1 text and/or support Pictures/illustrations Cognates	Teacher Modeling Math Journal/dictionary Small group/triads Word/Picture Wall L1 text and/or support Sentence frames Cognates	Math Journal/dictionary Small group/triads Sentence Starter Word wall Cognates	Math Journal/dictionary Small group/triads Cognates	Math Journal/dictionary Cognates

Geometry – Unit 1 – Math ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 2 CCSS: G.CO.1 G.CO.4 WIDA ELDS: 3 Speaking Reading Writing	Apply the definitions of angles, circles, parallel lines, perpendicular lines and line segments to describe rotations, reflections, and translations.		<u>Follow</u> written directions using specific mathematical terms on how to construct a rotation, reflection, translation <i>using a chart and a tutorial</i> . <u>Describe</u> orally and in writing, rotations, reflections and translation using specific mathematical terms <i>using manipulatives, graphs, software/website, and word wall</i> . <i>Note: See VU for specific terms</i>		VU: Bisect, counterclockwise, congruent, angles, circles, parallel and perpendicular lines and line segment
					LFC: Cause and effect prepositional phrases
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Follow written directions on how to construct a rotation, reflection, translation, then describe the process orally and in writing in L1 and/or use gestures, examples and selected technical words.	Follow written directions on how to construct a rotation, reflection, translation, then describe the process orally and in writing in L1 and/or use selected technical vocabulary in phrases and short sentences.	Follow written directions on how to construct a rotation, reflection, translation, then describe the process orally and in writing using key technical vocabulary in a series of simple sentences.	Follow written directions on how to construct a rotation, reflection, translation, then describe the process orally and in writing using key, technical vocabulary in some complex sentences.	Follow written directions on how to construct a rotation, reflection, translation, then describe the process orally and in writing using technical vocabulary in complex sentences.
Learning Supports	Charts/Posters Tutorial Manipulatives Graph Word/Picture Wall L1 text and/or support Math Journal	Charts/Posters Tutorial Manipulatives Graph Word/Picture Wall L1 text and/or support Sentence frames Math Journal	Charts/Posters Tutorial Manipulatives Graph Sentence Starter Word wall	Teacher Modeling Small group/triads	Teacher Modeling

Geometry – Unit 1 – Math ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 3 CCSS: G.CO.2, G.CO.3, G.CO.4, G.CO.5 WIDA ELDS: 3 Speaking Reading	Develop and perform rigid transformations that include reflections, rotations, translations and dilations using geometric software, graph paper, tracing paper, and geometric tools and compare them to non-rigid transformations.		<u>Follow</u> written directions on how to perform rigid transformations <i>using word wall and model</i> . <u>Compare and contrast</u> rigid and non-rigid transformations <i>using geometric tools, word wall and Math Journal</i> .		VU: Dilation, rigid/non-rigid, transformations, congruent, preserved
					LFC: Comparative terms, passive voice
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Follow written directions on how to perform rigid transformations; then compare and contrast rigid and non-rigid transformations in L1 and/or use gestures, examples and selected technical words.	Follow written directions on how to perform rigid transformations; then compare and contrast rigid and non-rigid transformations in L1 and/or use selected technical vocabulary in phrases and short sentences.	Follow written directions on how to perform rigid transformations; then compare and contrast rigid and non-rigid transformations using key, technical vocabulary in a series of simple sentences.	Follow written directions on how to perform rigid transformations; then compare and contrast rigid and non-rigid transformations using key, technical vocabulary in expanded and some complex sentences.	Follow written directions on how to perform rigid transformations; then compare and contrast rigid and non-rigid transformations using technical vocabulary in multiple, complex sentences.
Learning Supports	Teacher Modeling Math Journal Geometric tools Partner work Word/Picture Wall L1 text and/or support Pictures/illustrations	Teacher Modeling Math Journal Geometric tools Partner work Word/Picture Wall L1 text and/or support Sentence frames	Teacher Modeling Math Journal Geometric tools Partner work Sentence Starter Word wall	Math Journal Geometric tools Partner work	Math Journal Geometric tools

Geometry – Unit 1 – Math ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 4 CCSS: G.CO.6 G.CO.7 G.CO.8 WIDA ELDS: 3 Speaking Writing	Use rigid transformations to determine, explain and prove congruence of geometric figures		Identify and explain congruence of geometric figures using rigid transformation, both orally and in writing, <i>using an example, a sentence frame, partner and word wall.</i>		VU: Preserve, rigid, rotate, reflect, criteria
					LFC: Cause and effect transitional phrases, past tense
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Identify and explain congruence of geometric figures orally and in writing in L1 and/or use gestures, examples and selected technical words.	Identify and explain congruence of geometric figures orally and in writing in L1 and/or use selected technical vocabulary in phrases and short sentences.	Identify and explain congruence of geometric figures orally and in writing using key, technical vocabulary in a series of simple sentences.	Identify and explain congruence of geometric figures orally and in writing using key technical vocabulary in expanded sentences.	Identify and explain congruence of geometric figures orally and in writing using technical vocabulary in complex sentences.
Learning Supports	Teacher Modeling Demonstration Partner work Word/Picture Wall L1 text and/or support Pictures/illustrations	Teacher Modeling Partner work Word/Picture Wall L1 text and/or support Sentence frames	Teacher Modeling Partner work Sentence Starter Word wall	Teacher Modeling Partner work	Teacher Modeling Partner work

Geometry – Unit 1 – Math ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 5 CCSS: G.CO.9 G.CO.10 G.Co.11 WIDA ELDS: 3 Speaking	Create proofs of theorems involving lines, angles, triangles, and parallelograms.* (Please note G.CO.10 will be addressed again in unit2 and G.CO.11 will be addressed again in unit 4)		Create and explain orally the proofs of theorems <i>using a model, a Charts/Posters, a sentence frame and word wall.</i>		VU: Proof, prove, consecutive, interior, quadrilateral
					LFC: Cause and effect transitional phrases
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Create and explain orally the proofs of theorems in L1 and/or use gestures, examples and selected technical words.	Create and explain orally the proofs of theorems in L1 and/or use selected technical vocabulary in phrases and short sentences.	Create and explain orally the proofs of theorems using key technical vocabulary in a series of simple sentences.	Create and explain orally the proofs of theorems using key, technical vocabulary in expanded and some complex sentences.	Create and explain orally the proofs of theorems using technical vocabulary in multiple, complex sentences.
Learning Supports	Teacher Modeling Demonstration Student-generated dictionary Partially completed proof Small group/triads Word/Picture Wall L1 text and/or support Pictures/illustrations	Teacher Modeling Student-created dictionary Partially completed proof Small group/triads Word/Picture Wall L1 text and/or support Sentence frames	Teacher Modeling Small group/triads Sentence Starter Word wall	Teacher Modeling Small group/triads	Teacher Modeling

Geometry – Unit 1 – Math ELL Scaffolds

	Student Learning Objective (SLO)		Language Objective		Language Needed
SLO: 6 CCSS: G.CO. WIDA ELDS: 3 Speaking Listening	Generate formal constructions with paper folding, geometric software and geometric tools to include, but not limited to, the construction of regular polygons inscribed in a circle.		<u>Follow</u> directions on how to construct polygons and angles <i>using a model, word wall and Charts/Posters.</i> <u>Describe</u> how to generate formal constructions of regular polygons inscribed in a circle orally <i>using a model, geometric software and tools, a Sentence Starter, Math Journal and word wall.</i>		VU: Polygon, inscribe, compass, crease, hexagon
					LFC: Understand commands
					LC: Varies by ELP level
	ELP 1	ELP 2	ELP 3	ELP 4	ELP 5
Language Objectives	Follow directions on how to construct polygons and angles; then describe how to generate formal constructions of regular polygons inscribed in a circle orally in L1 and/or use gestures, examples and selected technical words.	Follow directions on how to construct polygons and angles; then describe how to generate formal constructions of regular polygons inscribed in a circle orally in L1 and/or use selected technical vocabulary in phrases and short sentences.	Follow directions on how to construct polygons and angles; then describe how to generate formal constructions of regular polygons inscribed in a circle orally using key vocabulary in a series of simple sentences.	Follow directions on how to construct polygons and angles; then describe how to generate formal constructions of regular polygons inscribed in a circle orally using key, technical vocabulary in expanded and some complex sentences.	Follow directions on how to construct polygons and angles; then describe how to generate formal constructions of regular polygons inscribed in a circle orally using technical vocabulary in multiple, complex sentences.
Learning Supports	Teacher Modeling Math Journal Demonstration Geometry software and tools Small group/triads Word/Picture Wall L1 text and/or support Pictures/illustrations	Teacher Modeling Math Journal Geometry software and tools Small group/triads Word/Picture Wall L1 text and/or support Sentence frames	Teacher Modeling Math Journal Geometry software and tools Small group/triads Sentence Starter Word wall	Teacher Modeling Math Journal Geometry software and tools Small group/triads	Teacher Modeling Math Journal Geometry software and tools