# Student Growth Objective Form



(DISTRICT-DEVELOPED SAMPLE SGO for ALGEBRA II; 1 of 2)

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Name	School	Grade	Course/Subject	Number of Students	Interval of Instruction
		10-12	Algebra II		Sept 2015-March 2016
Standards, Rationale	e, and Assessment Me	thod			
Critical Area: Polyno	mial, Rational, and Ra	dical Relati	onships		
<b>Rationale:</b> The following Common Core State Standards have been selected as critical areas because they are identified as major focus standards for the Algebra II course. In addition, these algebraic skills and concepts have relevance and applications that are essential for success in college and career readiness.					
Standards:					
Standards: N.CN.1: Know there is a complex number <i>i</i> such that $i^2 = -1$ , and every complex number has the form $a + bi$ with $a$ and $b$ real. N.CN.2: Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers. N.CN.7: Solve quadratic equations with real coefficients that have complex solutions A.SSE 1: Interpret expressions that represent a quantity in terms of its context A.SSE 2: Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4 as (x^2)^2 - (y^2)^2$ , thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$ . A.SSE 4: Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments. <sup>*</sup> A.APR.1: Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. A.APR.2: Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number $a$ , the remainder on division by $x - a$ is $p(a)$ , so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$ . A.APR.3: Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial. A.APR.6: Rewrite simple rational expressions in different forms; write $a^{(x)}/_{b(x)}$ in the form $q(x) + r^{(x)}/_{b(x)}$ , where $a(x)$ , $b(x)$ , $q(x)$ , and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$ , using inspection, long division, or, for the more complicated examples, a computer algebra system. A.REL2: Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise					
intersect are the solutions of the equation $f(x) = g(x)$ ; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include					
cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and					
F.IF.7: Analyze functions using different representations.					
Focused Mathematical Practice Standards:					
<b>MP 1:</b> Make sense of problems and persevere in solving them					
MP 3: Construct viable arguments and critique the reasoning of others					
MP 5: Use appropriate tools strategically					
MP 7: Look for and make use of structure					

## **Assessment Method:**

Authentic Assessments (Assessment Portfolio) will be used as a tool to measure students' growth. The assessment portfolio incorporates carefully selected practice-forward tasks that reflect higher levels of cognitive complexity.

### **Starting Points and Preparedness Groupings**

Student tiers will be determined using a multiple data point system to develop a baseline index. Each tier will be assigned a target command level.

### Data Measures used to Establish Baselines

- 2014-15 Average of unit assessments (40%)
- 2014-15 Average of SGO performance assessment (10%)
- 2014-15 Final Grade (10%)
- 2015-16 current year diagnostic assessment (40%)
- 2015-16 (September 8 October 10) class attendance (see Rubric)

Preparedness Group	Baseline Score
Tier 1	< 0.35
Tier 2	0.35 – 0.55
Tier 3	0.55 – 0.75
Tier 4	> 0.75

#### Student Growth Objective

By March 2016, 70% of students in each preparedness group will meet their assigned target command level for full attainment of the objective as shown in the scoring plan.

Preparedness Group (e.g. 1,2,3)		Number of Students in Each Group	Target Command Level on SGO Assessment Portfolio	
Tier 1			2	
Tier 2			3	
Tier 3			4	
Tier 4			4 or 5 <sup>1</sup>	
Scoring Plan State the projected scores for each group and what percentage/number of students will meet this target at each attainment level. Modify the table as needed.				
Dueue de ses	Student	Teacher SGO Score Based on Percent of Students Achieving Target Score		

Group	Command Level	Exceptional (4) > <b>80%</b>	Full (3) <b>70-80%</b>	Partial (2) <b>50-69%</b>	Insufficient (1) <b>&lt;50%</b>
Tier 1	2				
Tier 2	3				

<sup>&</sup>lt;sup>1</sup> It is expected that students in Tier 4 <u>maintain</u> a level of strong command or grow to distinguished command.

Tier 3	4					
Tier 4	4 or 5					
Approval of Student Growth Objective Administrator approves scoring plan and assessment used to measure student learning.						
Teacher	Sign	ature		Date Submitted		
Evaluator	Signa	ature		Date Approved		
Results of Student	Growth Objective	e erage as appropriat	e Delete and add	columns and rows a	s needed	
Preparedness Group	Students at Target Score	Teacher SGO Score	Weight (based on students per group)	Weighted Score	Total Teacher SGO Score	
Tier 1						
Tier 2						
Tier 3						
Tier 4						
Notes Describe any changes made to SGO after initial approval, e.g. because of changes in student population, other unforeseen circumstances, etc.						
<b>Review SGO at Annual Conference</b> Describe successes and challenges, lessons learned from SGO about teaching and student learning, and steps to improve SGOs for next year.						
Teacher		Signature	e	Da	te	
Evaluator		Signatur	e	Date		
Class Attendance Baseline Rubric						
Attendance Rate (Sentember 8 - October 10) Scores						
Attendance kate (September 8 - October 10)			JUIES			

Attendance Rate (September 8 - October 10)	Scores
≥ 94%	No score deducted from the student's original
	baseline score
< 94%	6% of baseline score will be deducted from the
	student's original baseline score

Note:

The attendance percentage of 94% was used as good average attendance for public schools, while 93-85 percent was used as needing improvement and 84 percent or below was used as poor attendance as defined by the No Child Left Behind Act (NCLB) 2001.

Reference:

- Jones, J., (2006, April 7). The impact of student attendance, socio-economic status and mobility on student achievement of third grade students in Title I schools. Retrieved from: <u>http://scholar.lib.vt.edu/theses/available/etd04202006154606/unrestricted/jonesapproveddissertationsa</u> <u>pr7.pdf</u>
- 2. Applegate, K. (2003). The relationship of attendance, socio-economic status, and mobility and the achievement of seventh graders (Unpublished doctoral dissertation), Saint Louie University, St. Louis, MO.
- 3. Ziegler, C. W. (1972). School attendance as a factor in school progress (Rev. ed.). New York, NY: AMS Press, Inc.