OAISD Sample Algebra 1 (MS or HS) Student Learning Objectives (SLO)

Name(s): __Mr. Will Power (8th or 9th grade)__   Content Area: __Math__   Grade/Course: __Alg. 1__

Instruction Interval: __9/30/2016 till 1/20/2017__   SLO Type: ☐ Class-level ✓ Course-level or Grade-level ☐ Targeted ✓ Tiered

Student Population

Who is included in this objective? If a targeted subgroup, how will the other students be addressed in another SLO?
Links: [Instructional Support Video #1 OH](#); Samples: [OAISD](#) and other states ([LA](#), [RI](#), [OH](#), or [NY](#))

> There are 90 students enrolled in three Algebra 1 classes. There are 42 boys and 48 girls. 12 of the students have IEPs, though only three need math related accommodations (NOTE: may wish to note the accommodations for SWD and EL). There are also nine students who qualify as an English Learner. This SLO will set goals for all 90 students based on available baseline data and will set rigorous and attainable goals for each student as one of four tiered group goals.

✓ Describes the characteristics of the student population including special needs (disabilities, language deficiency, etc.).
✓ Justifies why a targeted group was selected or includes the entire class.
  o If subgroups are excluded, specifies who and if they are covered by another SLO; otherwise, why not

Learning Standards

What are the essential standards connected to the learning content?   *Links: [Support Video #2 OH](#)*

> There are 17 "essential" standards for the first semester of Algebra 1 that should be mastered as foundational. The scope and sequence of the standards derive from the CCSS Appendix A: Designing High School Mathematics Courses Based on the Common Core State Standards. Of the 32 standards in units 1 and 2, an Ottawa Area ISD regional team of high school math teachers ranked 17 as "essential" based on readiness, leverage, endurance, teacher intuition and the expectation of appearing on state/national summative assessments. The essential standards include:
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> Unit 1:
> N.Q.2 (Define appropriate quantities for the purpose of descriptive modeling.)
> N.Q.3 (Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.)
> A.SSE.1 (Interpret expressions that represent a quantity in terms of its context.)
> A.CED.1 (Create equations and inequalities in one variable and use them to solve problems.)
> A.CED.2 (Create equations in two or more variables and graph them on coordinate axes with labels and scales.)
> A.CED.3 (Represent constraints by systems of equations or inequalities, and interpret solutions.)
> A.CED.4 (Rearrange formulas to highlight a quantity of interest.)
> A.REI.1 (Explain each step in solving a simple equation.)
> A.REI.3 (Solve linear equations and inequalities in one variable.)
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> Unit 2:
> A.REI.6 (Solve systems of linear equations)
> A.REI.10 (Understand that the graph of an equation in two variables is the set of all its solutions.)
> F.IF.1 (Understand that a function assigns to each element of the domain exactly one element of the range.)
> F.IF.2 (Use function notation, evaluate functions, and interpret statements that use function notation.)
> F.IF.4 (Interpret key features of a function's graph and table, and sketch graphs.)
> F.IF.5 (Relate the domain of a function to its graph and to the quantitative relationship it describes.)
> F.IF.6 (Calculate and interpret the average rate of change of a function over a specified interval.)
> F.LE.5 (Interpret the parameters in a linear or exponential function in terms of a context.)

✓ Aligns to specific state-adopted standards
✓ Represents the essential standards or the big ideas to be taught during the interval of instruction
✓ Reaches the appropriate level of complexity (DOK) for each state-adopted standard measured

There exists a great deal of inconsistency with baseline data for these 90 students. Virtually all of the students have M-STEP data from the previous year. Some have Delta Math Algebra Readiness data from last spring. We have a few who we do not have data and we are in the process of discussing the creation of a screener or using Delta Math Algebra 1 Readiness Screener for new students or all students in the fall. Based on the potential of three data points (M-STEP, Delta Math and teacher rating from last year based on unit assessments), students fall into one of four categories:

Group Name	Advanced	Benchmark	Strategic/"At Risk"	Intensive
Criteria	**Must have 2 of 3:** - Advanced on prior year M-STEP - Advanced prior teacher rating - Met benchmark criteria on all six Delta Math Algebra 1 Readiness Standards	**Must have 2 of 3:** - Proficient or higher on prior M-STEP - Proficient or higher on prior teacher rating - Met benchmark criteria on at least 5 of the Delta Math Algebra 1 Readiness Standards	**Contextual based on two or three factors:** - Minimally Proficient or Proficient on prior M-STEP - Not Advanced on prior teacher rating - Met benchmark criteria on at least 4 of the Delta Math Algebra 1 Readiness Standards	**Contextual based on two or three factors:** - Minimally Proficient or Not Proficient on prior M-STEP - Strategic or Intensive on prior teacher rating - Met benchmark criteria on 3 or fewer of the Delta Math Algebra 1 Readiness Standards
Number of Students	**7**	**24**	**47***	**12**

* Three students did not have data from the previous year, the decision was made to give them the Delta Math Readiness Screener this year, which placed all three students in the Strategic category.

The difference between Strategic and Intensive may be contextual based on the data. For instance, the student may have been minimally proficient and met benchmark on at least four Delta Math Algebra 1 Readiness, however, the previous teacher rated the student Intensive. Strategic would be the proper categorization based on the majority of the triangulation; however, there may be extenuating circumstances that would move the student to intensive that should be discussed with the department or administrator.

✓   Identifies sources of information about students (e.g. trend data and prior year test and/or pre-test data)
✓   Summarizes student data to demonstrate specific student need for the content.

The Ottawa Area ISD has developed unit interim assessments to measure student proficiency by setting a specific success criteria for each essential standard. Each essential standard is measured using 3 to 5 questions that vary in Depth of Knowledge and provide sufficient evidence of success. All students will be given the OAISD Algebra 1 - Unit 1 interim assessment in October and the Unit 2 interim assessment in December. Students who do not demonstrate proficiency for any essential standard will be provided re-teaching opportunities and then assessed again before the end of the semester using any other assessment tool that aligns with the standard and has sufficient evidence. The OAISD has developed "spiral" tests and provides limited banks of items for this specific purpose.

✓   Describes assessment alignment to the course content and emphasizes constructed-response or performance tasks that require higher-order thinking skills OR Identifies national, state or regional assessments that have been reviewed by content experts to effectively measure course content and reliably measure student learning as intended.
✓   Indicates that there are clear answer key, scoring guides and/or rubrics for all assessment items, including formative assessments.
✓   Describes the use of formative assessments aligned to essential standards and how progress monitoring will occur.

Growth Targets

What are the quantitative targets that will demonstrate achievement of this SLO? *Support Video #5 OH*;   *Samples:* *OAISD* (*LA*, *RI*, *OH*, *or NY*)

Group Name	Advanced	Benchmark	Strategic/"At Risk"	Intensive
Criteria	Students will demonstrate proficiency on all 17 essential standards within Unit 1 and 2. In addition, students score an average of 85% on quizzes and chapter tests that assessed all standards taught in the course.	Students will demonstrate proficiency on all 17 essential standards within Unit 1 and 2.	Students will demonstrate proficiency on at least 13 essential standards within Unit 1 and 2.	Students will demonstrate proficiency on 12 or fewer of the essential standards within Unit 1 and 2.
Number of Students	**15**	**60**	**12**	**3**
NOTE: Students may demonstrate proficiency on standards using the interim assessment or based on another assessment to provide sufficient evidence after re-teaching has occurred.				

✓ Baseline and trend data support established targets or pre-assessment data supports targets
✓ Demonstrated use of data to identify student needs and determine appropriate growth targets
✓ Ensures all students in this SLO have a rigorous and attainable target, consider setting differentiated growth targets

Rationale

What is your rationale for setting the targets for student growth and how do they align with school improvement goals?   *Support Video #6 OH*

Student readiness for Algebra 1 was measured by previous state level testing, previous teacher ratings and/or the Delta Math Algebra Readiness screener. The majority of students (over 65%) were below benchmark entering Algebra 1. Without any baseline data on how students score on the interim assessment or other standard based assessment to show proficiency on the essential standards, it is difficult to assure goals are both rigorous and attainable. However, moving over 65% of students from below benchmark (less than 35% benchmark or above) to 83% at benchmark or above seems very rigorous. Our goal is also to reduce the intensive population from 13% to 3%. Of course, this may prove to be too rigorous and our hope as a department is for some grace when finalizing the "student growth and assessment data" score. During the semester, I will collect some evidence about how the assessment data was used to inform both whole group and small group re-teaching. Analyzing the data to develop an action plan aligns well with our district goal to focus on the PLC process.

✓ Explains why target is appropriate for the population.
✓ Demonstrates teacher knowledge of students and content.
✓ Explains how targets align to broader school and district goals.

Comments from Approval Committee Members

This SLO may be scored by a district level scoring guide, find samples on the SI Timeline for SLO Box 5 & 6.

SLO Approval Committee   **Date**   **Signature**

Sample Name, teacher   9/30/2016   _____

Sample Name, teacher   9/30/2016   _____

Additional Names …   _____   _____

Sample Name, administrator   10/5/2016   _____