Curriculum Sample Template
Max. 8 Pages

Grade Level	High School	**Content Area**	Mathematics
Course Title (grades 9-12 Only)	Algebra II		
Expected Prior Knowledge *The knowledge/skills mastered earlier in the year foundational to the mastery of the required Standard in the current sample.*	Students fully understand the slope-intercept form of a line. They also understand the types of inequalities and the logical operators *and* and *or*.		
Alignment to Program of Instruction *Briefly outline methods of instruction found in this sequence of lessons that align to the Program of Instruction described in A.3.*	The school's program of instruction for mathematics combines an alignment with Hunter's Essential Elements of Instruction and the Socratic method as outlined and described by The Great Books program and Michael Strong's text The Habit of Thought. Instruction during this unit will include direct instruction of key points and examples, guided practice including practice problem sets and partner activities, independent practice, and daily formative assessments conducted at the end of each class period.		
Standard Number and Description *List the Number* and the full description for the Required Standard or Science Performance Objective listed in section A.6.*	A-REI.12 Conceptual Category: Algebra Domain: Reasoning with Equations and Inequalities (A-REI) Standard: #12 –Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.		
Materials/Resources Needed	One large (4'X8') whiteboard, one small (2'X2') whiteboard, one meter stick, two whiteboard markers, and one eraser for every two students.		

**** Standard Number**: For English Language Arts (Reading and Writing), use Grade, Strand, Standard (e.g., 3.RI.2). For K-8 Math, use Grade, Domain, Standard (e.g., 6.EE.7). For HS Math, use Conceptual Category-Domain, Standard (e.g., A-REI.6). For Science, use Grade, Strand, Concept, PO (e.g., 4.1.3.1).*

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Lesson (add as needed)	**Instructional Strategies**	**Student Activities**
1	This is a 3 day lesson. Day 1 Initiate a discussion concerning inequalities and their meaning in one dimension. Ask the students what inequalities mean in two-dimensional space. The teacher will evaluate the quality and accuracy of individual student interpretations of whiteboards during the gallery walks.	Do Now: Students will review the basic vocabulary of inequalities. Guided Practice: Students (working in pairs) will draw a Cartesian coordinate plane and draw the line given by an inequality. They will then plot 10 given points and determine if the point fulfills the truth condition for the inequality. All student pairs will report their findings during a board meeting. Independent Practice: Student pairs will draw the line determined by a second inequality. They will then determine if the original points fulfill the truth condition for the new inequality. All student pairs will report their findings during a board meeting. **Summative Assessment #1**: Students will participate in a *Gallery Walk* and be evaluated on their interpretation on other students' whiteboards. Whiteboards will be saved for the next lesson.
2	Day 2 Initiate a discussion concerning the logical operators *and* and *or*. Lead the students to connect inequalities in two-dimensional space with logical operators. Ask the students how they can determine or check if a particular point meets the criteria to be in the solution set. The teacher will evaluate the quality and accuracy of student *Expert Talks*.	Do Now: Students will review the previous day's lessons and logical operators. Guided Practice: Using the previous day's whiteboards, the students will write truth statements taking into account both inequalities. All student pairs will report their findings during a board meeting. Independent Practice: Each student pair will solve for five given points each with two intersecting lines. **Summative Assessment #2**: Students will participate in four 2-minute *Expert Talks*: twice as a learner and twice as an expert.
3	Day 3	**Summative Assessment #3** – Unit Quiz.

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Summative Assessment Items: *Attach here.* For each summative assessment item, include an answer key or scoring rubric describing how points are to be awarded.

Summative Assessments #1 and #2 represent activities that are approved and used by the top liberal arts academies in the Phoenix area. They are designed to be aligned with the philosophy of the school and fulfill the mission of the Socratic Method which requires the active engagement of students with each other even though they may be evaluated independently. Furthermore, this style of evaluation is cross-aligned with the evaluation system used in other classes at the school, particularly Humane Letters, in order to create a consistency across the entire curriculum.

Summative Assessment #1:

Each "Gallery Walk" / "Board Talk" will be evaluated according to the Socratic discussion rubric outlined below.

	1	2	3	4
White Board Preparation	Student contributes little to white board presentations and relies heavily on partner(s) to complete the work.	Student contributes somewhat to the white board preparation, but is unable to adequately explain the final results.	Student is actively involved in the white board preparation but struggles to provide an accurate explanation of the results.	Student actively contributes to the preparation of the white board and is able to very accurately explain its results.
Participation in Gallery Walk or Board Talk	Student rarely speaks and does not contribute meaningfully to the discussion.	Students speaks infrequently, but the quality of analysis is fairly good.	Students speaks moderately frequently and offers analysis of white boards that is helpful to peers.	Student speaks frequently and offers crucial insight/analysis that makes important connections among white board presentations.
Peer Interaction	Student does not engage in discussion with peers.	Student seems more comfortable speaking directly to the teacher and not with peers.	Student generally speaks to peers, but occasionally looks to the teacher for affirmation.	Student speaks directly to peers and rarely to the teacher, except when necessary.
Civil Discourse	Student is generally disrespectful of peers.	Student is respectful but can be prone to showing momentary irritation, hostility, or condescension.	Student is generally polite and respectful.	Student is exceptionally courteous and respectful even during debates and disagreements.

Total Points Possible: 16

Mastery: 14 points (≈85%)

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Summative Assessment #2:

The four "Expert Talks" will be evaluated according to the Socratic discussion rubric outlined below.

	1	2	3	4
White Board Preparation	Student contributes little to white board presentations and relies heavily on partner(s) to complete the work.	Student contributes somewhat to the white board preparation, but is unable to adequately explain the final results.	Student is actively involved in the white board preparation but struggles to provide an accurate explanation of the results.	Student actively contributes to the preparation of the white board and is able to very accurately explain its results.
"Learner" Mode for Expert Talks	Student is uncertain of what questions need to be asked and how to ask them.	Students attempts to ask questions but has significant difficulty in properly phrasing them.	Students asks good questions.	Student not only asks good questions, but leads classmates to better understanding of the material.
"Expert" Mode for Expert Talks	Student displays little understanding of white board material.	Student exhibits some understanding of white board material but is unable to clearly communicate answers to questions.	Student demonstrates competence in answering questions about white board material.	Student demonstrates a sophisticated understanding of white board material and leads the class to in-depth discussions.
Peer Interaction	Student does not engage in discussion with peers.	Student seems more comfortable speaking directly to the teacher and not with peers.	Student generally speaks to peers, but occasionally looks to the teacher for affirmation.	Student speaks directly to peers and rarely to the teacher, except when necessary.
Civil Discourse	Student is generally disrespectful of peers.	Student is respectful but can be prone to showing momentary irritation, hostility, or condescension.	Student is generally polite and respectful.	Student is exceptionally courteous and respectful even during debates and disagreements.

Total Points Possible: 20
Mastery: 17 points (85%)

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Summative Assessment #3: Unit Quiz

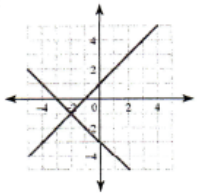
Summative Assessment Name_____

A-REI12

Sketch the solution to each system of inequalities.

1) $y < -x - 3$
$y \le x + 1$

A)



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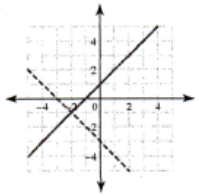

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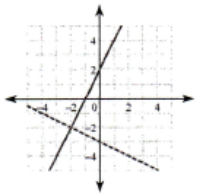

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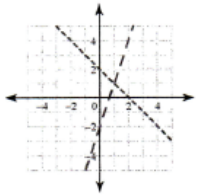
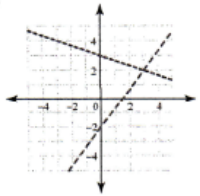


2) $y < \frac{4}{3}x - 2$
$y > -\frac{1}{3}x + 3$

A)



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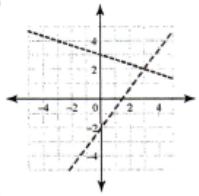

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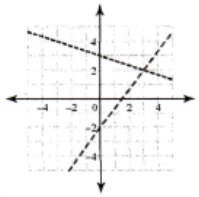

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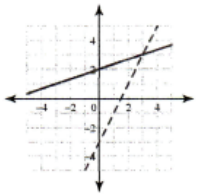

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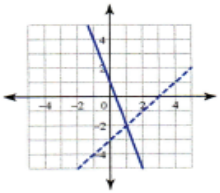
3) $4x - y > -2$
$x + y \leq -3$

A)



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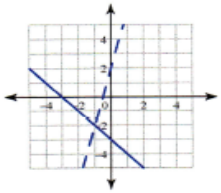

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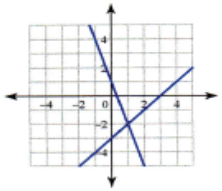

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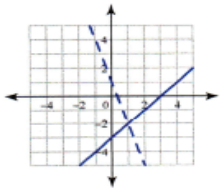
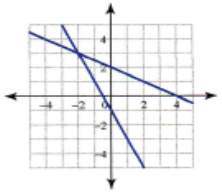


4) $2x - y \leq -3$
$x + 2y \geq -4$

A)



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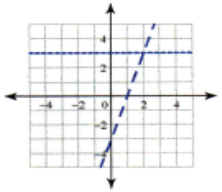

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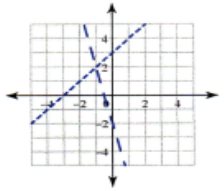

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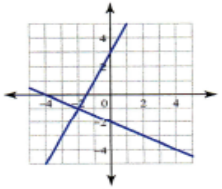

Two points for each correct answer.
Total Points Possible: 8
Mastery: 8 points (100%)

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