Boston Collegiate Charter School Lesson Plan Template

Name: Kayla Winters Date: Class: Day 12 Part 1 and Part 2

AIM: SWBAT graph quadratic inequalities and systems of quadratic inequalities					
□ **Knowledge** *Tell, list, relate, locate, find, state, name, identify, write*	□ **Comprehension** *Explain, outline, discuss, describe, predict, compare*	□ **Application** *Solve, show, use, illustrate, calculate, construct, examine, classify*	□ **Analysis** *Analyze, distinguish, examine, contrast, investigate, categorize, explain, separate*	□ **Synthesis** *Create, invent, compose, predict, plan, construct, design, improve, formulate, elaborate*	□ **Evaluation** *Judge, choose, decide, justify, debate, argue, recommend, determine, assess, prioritize*

Time	**What will TEACHER do during the lesson?**	**What will STUDENTS do during the lesson?**	**What QUESTIONS to ask?**
5 min	Time to put it all together!!! To put on board: Steps to graph a linear inequality (look at VIP)	Students will look for their VIP on graphing inequalities and tell me what the steps are to write on the board	
5 min	What do we need to change to graph a quadratic inequality? (answer step 3 will change: finding x intercepts)	Analyze steps to find changes that need to be made. Think-Pair-Share.	
7 min	Create a NEW VIP for graphing quadratic inequalities.	Work together as a class to write out a new VIP.	
10 min	Using test points, sticky dots, and a big graph, graph a quadratic equation! Work together as a class going through the steps of the new VIP.	Graph on the big graph paper as a group. Complete shading.	
10 min	Now, what if I made this a system of equations? Add a linear equation below the quadratic. How do we find the intersection?	Investigate how you would find the intersection of a parabola and a line! Think-Pair-Share. Graph the intersection with a sticky dot.	
7 min	Graph the linear equation following our original VIP steps	As a group graph the linear equation using their VIP	
10 min	Using test points and sticky dots figure out which side we would shade of the line. Where is the feasible region?	Put the sticky dots on the graph paper. Complete shading, and cross hatching for the feasible region.	
3 min	Check our work.	Check work by making sure we went through each step and didn't forget to do something to the graph	
15 min	Graph 1-2 systems of inequalities individually	Independent Practice	

Homework	Solving a linear-quadratic system graphically (make some inequalities)	**Reflections for next year:**
Materials	Big graph paper Sticky dots markers	