Direct Instruction Lesson Plan

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*Subject(s)*: Math I

*Topic or Unit of Study (Title):* Solving Systems of Equations- Linear Inequalities

*Grade Level:* 9th Grade

*Materials:* SMART Board, [Notes](file:///C%3A%5CUsers%5CCyrus%20Taylor%5CDownloads%5CDirect%20Instruction%20Notes.pdf)

*Summary:* Teacher will give notes on how to graph linear inequalities.

1. *Focus and Review:* “Last week we worked on solving systems of equations. Today we are shifting gears and we will come back to systems tomorrow. Today is all about linear inequalities. In life we know not every problem can be solved with exactly one point. In many cases, many answers will work.” The teacher will write the following problem on the board:
A store is selling apples for $0.50 per apple. How many apples should they sell to get a profit of over $46?
“So this looks like the simple one-variable equations from back when we were starting equations, right? What is different? Well in this case, we need to make a profit of over $46. Can we make more than $46? Can we make $46?"
2. *Statement of Instructional Objective(s) and Assessments:*

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| *Objectives (2 min)* | *Assessments* |
| When given five linear inequalities, the student will be able to graph at least four of them to 100% accuracy. | As the teacher walks around the classroom during the *Guided Practice* he/she will check to make sure that each student is getting at least four out of five problems correct. If the students are not achieving this objective, then the closure will be used to help clear up any confusion. |

1. *Teacher Input:* The teacher will use the attached notes to teach the class. He/she will write on the SMART Board and save the notes for students who were absent.
2. *Guided Practice:* The teacher will put problems on the board and ask the students to graph them. As the teacher is walking around the classroom he/she will make sure each student understands the concept.
3. *Closure:* “So today was the introduction to systems of linear inequalities, which we will be learning about tomorrow. Who can tell me what this tells us (teacher writes less than or equal to symbol)? Is it going to be a dotted line or not?” Teacher draws a line with positive slope on a graph. “Who can tell me what part of the graph I’m going to shade?”
4. *Independent Practice:* The teacher will assign problems in the textbook for homework (pg. 418 7, 11, 15, 21 & pg. 422 11, 13)

*STANDARDS:*

HSA-CED.A.3 (Modeling with equations and inequalities)

HSA-REI.D.12 (Relate the solution to a system of inequalities to the graph)

*Plans for Individual Differences:*

Since this section does not have a formula or step-by-step procedure, the multiple levels of questions would be used here to help her understand how each subsequent level follows from the previous. This method would be used in the *Teacher Input* section by asking initial questions like “What symbol are we using? What will the line look like? What is the slope of the line? What is the y-intercept? etc..”

*References (APA style):*