Instructor: Gabriel Thompson	Class: 8th Algebra 1	Day: 3	Date: TBD

Information about the Lesson

Learning Theory	Bloom's Cognitive Domain	Gardner's Multiple Intelligences	Lesson Type
__ Behaviorism _X_ Cognitivism __ Constructivism __ Experiential	_X_ Remember _X_ Understand _X_ Apply __ Analyze _X_ Evaluate __ Create	__ Verbal/Linguistic _X_ Logical/Mathematical __ Visual/Spatial __ Bodily/Kinesthetic __ Musical/Rhythmic __ Interpersonal/Social __ Intrapersonal/Self-aware __ Naturalist/Environmentally aware	__ Present and Explain __ Direct Instruction _X_ Concept Lesson __ Inquiry-Based Lesson __ Cooperative Learning __ Project /Problem-Based Learning __ Classroom Discussion

Previous Lesson: Students have learned about slope, slope-intercept and point-slope form and how it affects the way a graph looks
Future Lesson: Students will reinforce their knowledge on graphing an equation in slope-intercept and point-slope forms and vice versa.

Prerequisites: *Before beginning this lesson students will have:*

- Lessons with practice on rate of change and slope and how to determine it. They will also have knowledge on the coordinate plane system and the axis' as well as slope-intercept form and point slope form.

Materials Needed: TI-84 Calculators, Whiteboard, Marker, Computer

Lesson Content and Design

Central Focus / Big Idea: Find the equation of a line (or graph a line) given a graph, two points, or a table (or equation)

Objective(s):

- **SWBAT** graph a line using point-slope form and determine the equation of a line in slope-intercept form point-slope form given a graph, table, or context.

Guiding Question(s):

- How does knowing a point-slope equation help you in the real world?
- Understanding the importance of candy, how can this equation reach the candy goal faster?

Assessment:
Formative: Assessment (Data Test) in 3-5 days.
Summative: Demonstrate an understanding of the point-slope formula through homework and IXL

Academic Language: Slope, slope-intercept, point-slope, y-intercept, x-intercept, independent variable, dependent variable

Standard(s):

- 2007 Mathematics 8.2.2.1, 8.2.2.3, 8.2.2.4, 8.2.4.1, 8.2.4.3

Presentation/Syntax (Example given below…note the tiered portion in blue and red)

Elements	Minutes	Detailed Description
Consider: Work to prepare students and access prior knowledge and experiences	5	**Whole Group**: 1. **Warm-up:** No warm-up today. Students will rearrange the room so all computer face one direction. Students will get Chrome Books from computer cart and start IXL.com assignment immediately.

Construct: Work to allow students to build new knowledge and skills	**50-55**	**Whole Group:** **2.** Students will get Chrome Books from computer cart and start IXL.com assignment immediately. IXL provides a natural differentiation. Students understand that they can do less problems if needed or do more as the difficulty changes. Also, this reinforces computer problems that make up the MCA (Minnesota's Standardized Test) so students are better prepared for questions and answers that have are not mine.

Differentiation (Example given below)

Planned Support /Extension/ Differentiation for Specific Students:

Students are allowed to work at different rates to accommodate their change (see what I did there?!) Students are placed at table groups of 4-5 and vary at different levels of academic skill. Teacher will re-teach individually or in small groups as needed. Only the high students will reach the challenge and extend section allowing them to explore in arbitrary numbers. IXL provides rigor for all and a certain repetitiveness that creates familiarity and understanding.

Groups:
See seating chart for more details (see what I did there?!)

The groups are differentiated by math levels to give a variety of ideas when working. This grade is a little higher in academic level so typically there are 2-3 high students with 2 medium-low students. The choice of thoroughness in the problem is the student's alone. The "ready-to-go" students finish the whiteboard problem within 30 seconds whereas the "not-ready-yet" students may need more examples, individualized help and/or guided instruction which can take up to 10 minutes. Teacher may assign less problems to start with in order to ensure all aspects are covered. If middle-low students are able to complete those problems, then it is established that they try the other problems for more practice.

Individual Student Accommodations:

Jimbob:

- **10 minute sensory break at the end of class.**
- **Student uses task chair with that swivels to allow for slight movement**
- **Student has para Jen to help keep on task and help him advocate for help when needed.**
- **Student can wear his own personal headphones or sound eliminators during work times due to sensory hearing needs.**
- **Student implements expectations (point) sheet during and at the end of class to help promote on-task behavior.**