Olmsted Falls Schools: Unit Design Framework

Subject: Graphing Linear Equations and Functions **Unit: Chapter 4**

Part I: Clarity of Learning Targets

What are the grade level indicators that go with this unit? Place a star next to the grade level indicators that are Power Indicators. Are the indicators in student friendly language? Place the level of Bloom's Taxonomy next to each Power Indicator.
Graph linear equations in standard form and slope-intercept form (EQ2) Identify solutions from graphs and relations (EQ1) Formulate and obtain solutions using direct variation (EQ1) Recognize changes in slope and rate of change (EQ1) Determine slope and rate of change (EQ2) Translate linear function graphs (EQ2)
What are the Big Ideas that go with this unit?
1) Graphs are used to visually represent linear equations to help identify solutions 2) Using graphs of linear equations in multiple representations to model functions of real-world problems. .
What are the Essential Questions that go with this unit?
1) Why do we use graphs? 2) How can you represent real-world problems graphically? 3) What key concepts from linear equations in different forms are needed to graph a line?
What strategies will we use in order to make learning targets clearer for all students, before, during and after instruction? How will you communicate the learning indicators to students? Post learning targets Daily discussions of learning targets Pre/post chapter check list

Part II: Feedback and Assessments (Formative and Summative)

How will we provide students with feedback throughout the unit?

What formative assessments will we use? (Non-graded assignments that check for understanding and provide feedback to the students) Incorporate the 7 Strategies of Assessment for Learning here.

Use Senteos for immediate feedback of student answers during class
Daily Bell Work
Examples of strong and weak work

How will students be involved with keeping track of their own learning progress (note—this is different than tracking points for a grade)?

I can checklist of learning targets
White boards/clickers
Daily notes

What summative assessments will we use? (Graded, evaluative assessments)

Chapter 4 test
Chapter 4 quizzes
Chapter 4 Line and Point Art Project

How Can I Close the Gap?

What will we do AFTER the students have completed the formative assessment to differentiate instruction?

If they are successful, move on. If the majority of class is unsuccessfully Reteach in a different way. If a few students are unsuccessfully then provide one on one instruction.

What interventions will we provide for students who do not do well on the formative assessment?

One on one instruction during class time while others are working on appropriate problems.
Math tutoring available throughout the day.
Before school or after school instruction.

What will we do for the students who are on track?

Provide appropriate problems to challenge their thinking

What will we do for the students who excel? What extension activities will we provide?

Provide appropriate problems to challenge their thinking

Part III: Instruction and Student Activities

What instructional and student activities will we use for this unit? These activities should directly align with the indicators and assessments.

Graphing linear equations worksheets
Graphing using intercepts worksheets
Graphing using slope-intercept worksheets
Graphing Calculator activity
Modeling direct variation worksheet
Cognitive tutor math software aligned with learning targets