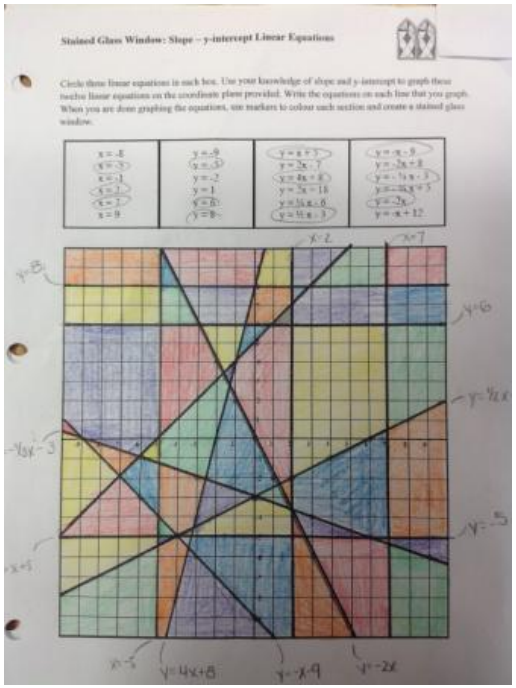
Linear Equations & Graphs - Featured Resources

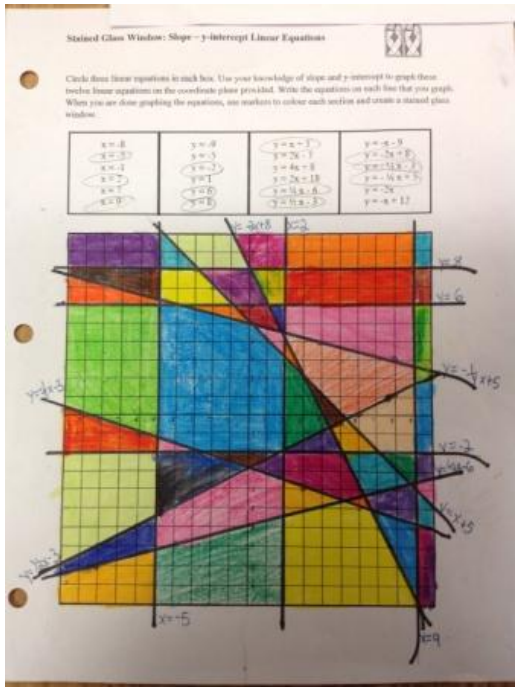
RF SO4 - Stained Glass Window Activity

(Download: StainedGlassWindow.docx)

In this activity, students must choose three linear equations from each column and graph. In the first column are vertical lines, in the second column are horizontal lines, the third column lists positive slope lines and the last column lists negative slope lines. Students can choose which lines they want to graph. Each student is able to create a different stained glass window. This is a nice activity to review slope intercept form.

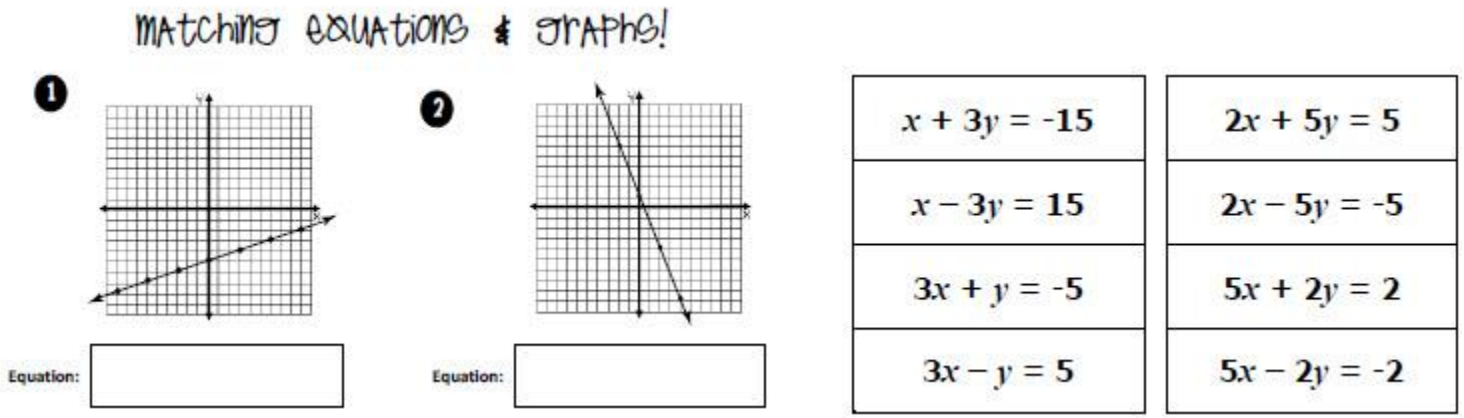
The **TRANSFORM** shifts that could align with this activity include shifting from Student as Knowledge Recipient to Student as Creator, shifting from Summative Assessment to Formative Assessment, and shifting from One-size-fits-all to Personalized or Differentiated.





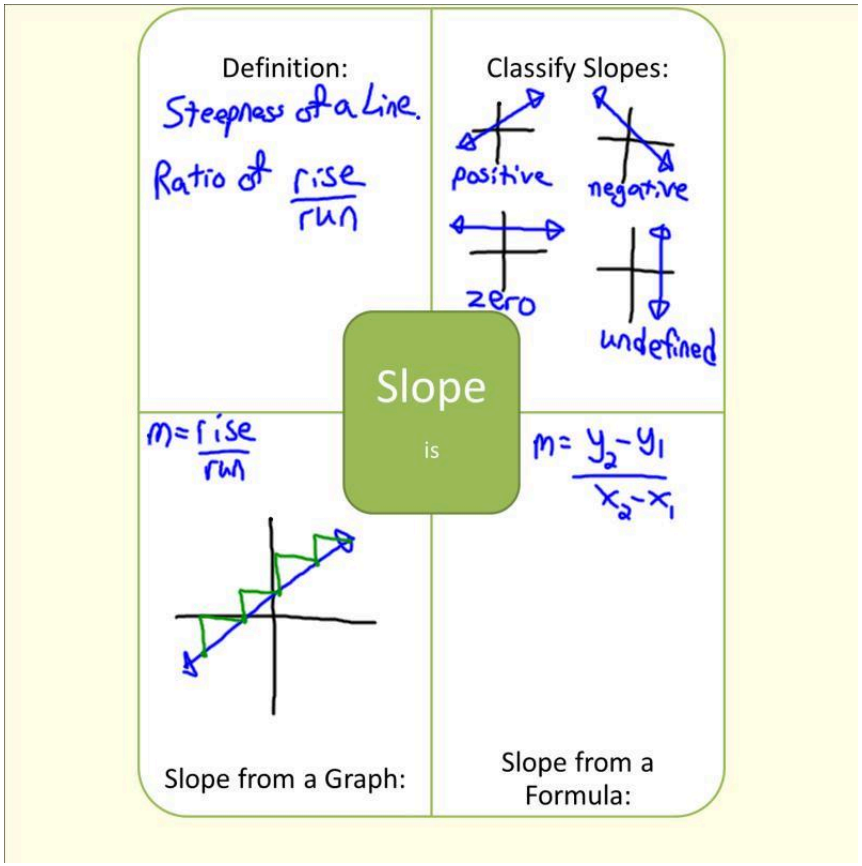
RF SO7 - Matching Graphs and Equations Activity

In this activity, students must write the equation of a line from a graph and then algebraically manipulate the equation to become the form Ax + By = C. Students may use any personal strategy or method to write the equation of each line. Students could use slope, intercepts, a function table or slope intercept form. Students must also select the correct representation of the equation of the line from a list of four choices. The TRANSFORM shifts that could align with this activity include shifting from Summative Assessment to Formative Assessment, and shifting from One-size-fits-all to Personalized or Differentiated.



RF SO3 - Slope Graphic Organizer

Drawing this graphic organizer with students may help promote a more complete understanding of slope.



Graphic Organizers are useful when establishing connections. Visit the Connections Process section for more ideas on how to incorporate Connections into your teaching.

RF SO3-7 Investigating Lines

(Download: InvestigatingLines.docx)

This investigation nicely guides students through the connection between rate of change, slope, y-intercepts and equations of lines in slope-intercept form.

Math 10 C: Investigating Lines

Complete the following with a partner.

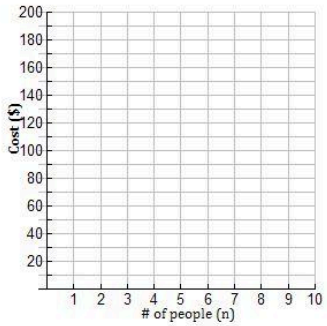
Part A

1. The cost of a private dinner with a set menu at a restaurant is represented by the equation $C = 20n$ where n is the number of people in attendance and C is the total cost. Complete the partial table of values below. Then, graph the data on the grid provided. Label the graph L1.

n	C
0	
1	
2	
3	
4	
5	
6	

2. The cost of a different menu is represented by the equation $C = 30n$ where n is the number of people in attendance and C is the total cost. Complete the partial table of values below. Then, graph the data on the same grid as number 1. Label the graph L2.

n	C
0	
1	
2	
3	
4	
5	
6	



3. Is the function represented by the equations (and graphs) above linear or non-linear? How do you know?

4. How are L1 and L2 different? How are they similar?

Visit the Reasoning and Connections sections for more ideas of how to incorporate these processes in your teaching.