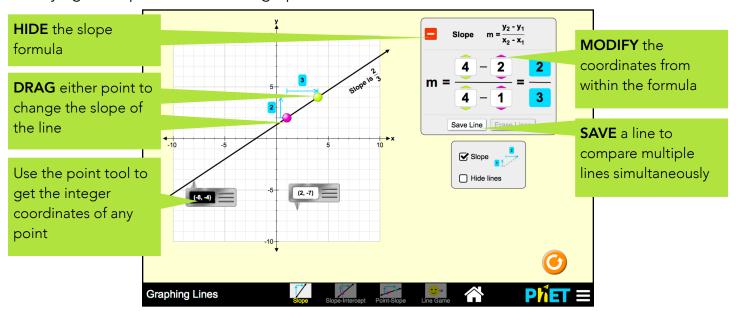


### Graphing Lines

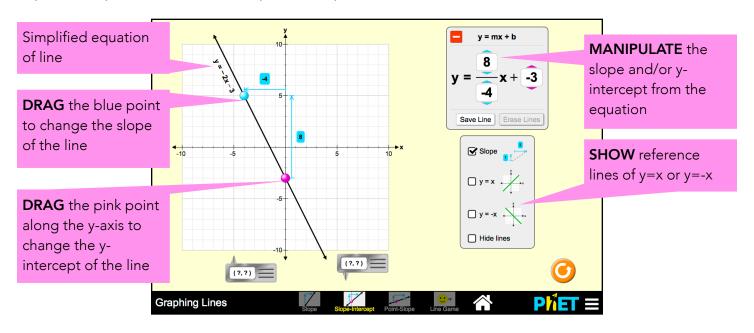
#### **Slope Screen**

Explore the parameters of the slope formula and how modifying the graph affects the equation or modifying the equation affects the graph..



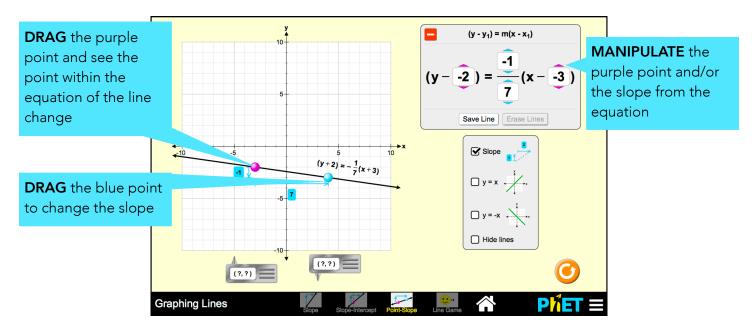
#### **Slope-Intercept Screen**

Explore the parameters of the slope-intercept form of a line.



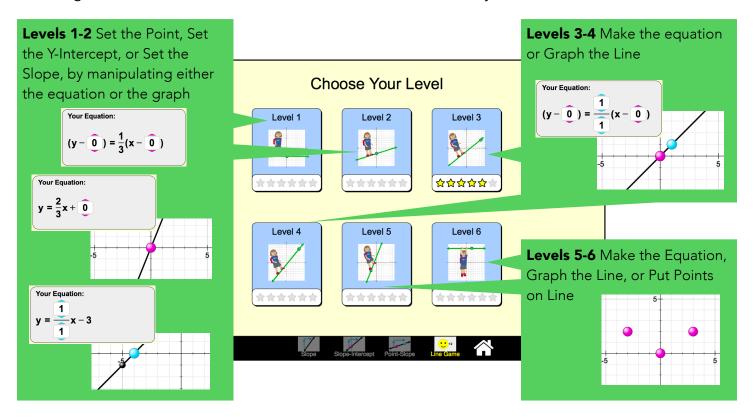
#### **Point-Slope Screen**

Explore the parameters of the point-slope form of a line.



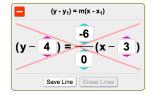
#### **Game Screen**

Challenges are random within each level, but increase in difficulty.



#### **Complex Controls**

McGarry, May 2015



• If two points are stacked vertically on any screen, the slope will be undefined and a red x will appear over the equation.

## x = 3 (slope undefined)

displayed as

# (-5, -5)

#### **Insights into Student Thinking**

• Students may have difficulty with the game, particularly Set the Equation challenges, if they do not use the point tools.

See all activities for Graphing Lines <a href="here">here</a>.
For more tips on using PhET sims with your students, see <a href="here">Tips for Using PhET</a>.