

## **TI-Nspire Activity Who's My Parent? A family of linear graphs.**

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### **Activity Overview**

*The activity looks at a family of functions and identifies the parent function as well as the properties of each function and what makes each function different.*

### **TN State Standards**

*Objective: TLW learn to explore the effects of changing the slopes and y-intercepts of linear functions.  
3102.1.14 Apply graphical transformations that occur when changes are made to coefficients and constants in functions.*

*SPI 3102.1.5 Recognize and express the effect of changing constants and/or coefficients in problem solving.*

*3102.3.17 Recognize "families of functions".*

*3102.3.24 Interpret the changes in the slope-intercept form and graph of a linear equation by looking at different values of the parameters,  $m$  and  $b$ .*

*3102.3.25 Find function values using  $f(x)$  notation or graphs*

*SPI 3102.3.8 Determine the equation of a line and/or graph of a linear equation.*

### **Concepts**

- *Graphing linear graphs and identifying the slope and y-intercept.*
- *Analyzing the transformations of the functions by changing the coefficient and constants in a function.*
- *Identifying the parent function.*

### **Teacher Preparation**

*Download the .tns file Parent Functions. Prepare the student worksheets.*