Exploring Common Core Topics in Algebra with TI-Nspire™ Technology

Audience: Educators who need support in transitioning to CCSS for high school Algebra.

Technology: TI-Nspire™ CX handhelds and TI-Nspire™ Teacher Software.

Overview: This workshop addresses content standards in high school Algebra, with a focus on building pedagogical skills for leading discussions, asking students to explain their reasoning and engaging them in the Mathematical Practices with TI-Nspire™ technology.

## Workshop Objectives:

1-day	Identification of main Algebra support needs with coverage of key domains and clusters in the Common Core; exploration of dynamic, interactive content; introduction to the Common Core Mathematical Practices; overview of essential TI-Nspire technology skills.
2-day	Broader Algebra coverage with opportunities for differentiation based on teacher needs; deeper discussions of the Mathematical Practices; introduction to the Teacher Software; additional exploration of features and resources; addresses the units indicated below.

Special emphasis is placed on modeling with mathematics, including lessons designed to enhance students' descriptive and analytic modeling proficiency with multiple representations.

Strategies for engaging students in the Common Core Mathematical Practices will be discussed throughout the workshop.

Essential TI-Nspire technology skills will be introduced, including graphing and analyzing functions and scatter plots.
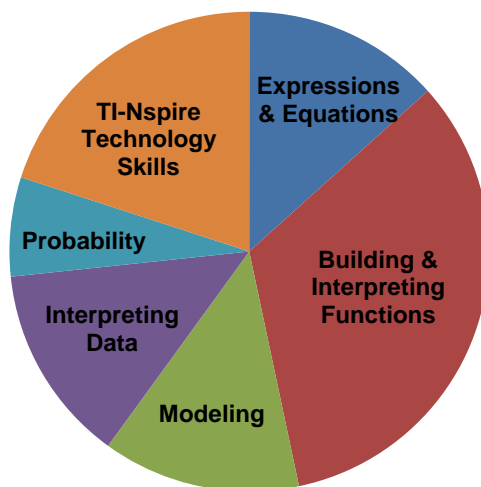
Sample Lesson: *Interpreting Linear Models*

Objective: Model a linear relationship between the independent and dependent variables in a data set and analyze graphical representations of the residuals. Recognize that if a linear model is a good fit for the data, the residual plot will be randomly scattered about the horizontal axis with no obvious curvature or trend.

Content Standards: S.ID.6a-c, S.ID.7.

Mathematical Practices: Construct viable arguments and critique the reasoning of others; model with mathematics; use appropriate tools strategically.