Modeling Linear Data *Teacher's Guide*

GRADE LEVEL: 8th

SUBJECT AREA/COURSE: Algebra I

SUNSHINE STATE STANDARDS:

- The student describes, analyzes, and generalizes a wide variety of patterns, relations and functions. (MA.D.1.3)
- The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics. (MA.E.2.3)
- The student understands and uses the tools of data analysis for managing information. (MA.E.1.3)
- The student uses, expressions, equations, inequalities, graphs, and formulas to represent and interpret situations. (MA.D.2.3)

ACADEMIC OUTCOMES/LESSON OBJECTIVES:

- Students will analyze graphical data to determine tendencies.
- Students will compare variables to determine relationships.
- Students will gather data and extrapolate information.
- Students will determine equations that describe given data.

TEACHER INFORMATION: Preview the student activity. Use Lake Thonotosassa first, and then explore to find lakes in your area that has the data available to illustrate the graphing lesson. Some lakes have water levels controlled, so they will not make appropriate graphs. You may want to have a selection of graphs on transparencies for class discussion after students have made graphs.

MATERIALS NEEDED: Graph Paper, Internet access with www.Hillsborough.WaterAtlas.org book marked, overhead projector, transparencies.

SAFETY: N/A

VOCABULARY: Slope, Intercept, line of best fit.

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