Dimensional Analysis *Teacher's Guide*

Students gather data, select appropriate units of measure and convert from one system to another.

GRADE LEVEL: 8th

SUBJECT AREA/COURSE: Algebra I

SUNSHINE STATE STANDARDS:

- The student uses direct (measured) and indirect (not measured) measures to compare a given characteristic in either metric or customary units. (MA.B.2.3.1)
- The student solves problems involving units of measure and converts answers to a larger or smaller unit within either the metric or customary system. (MA.B.2.3.2)
- The student selects appropriate units of measurement and determines and applies significant digits in a real-world context. (Significant digits should relate to both instrument precision and to the least precise unit of measurement.) Selects appropriate units of measurement and determines and applies significant digits in a real-world context. (Significant digits should relate to both instrument precision and to the least precise unit of measurement.) (MA.B.4.3.1)

ACADEMIC OUTCOMES/LESSON OBJECTIVES:

- Students will convert units between standard and metric systems.
- Students will use ratios to compare units.
- Students will gather data and extrapolate information.
- Students will determine units best suited to represent data.

MATERIALS NEEDED: Internet access with www. Hillsborough .WaterAtlas.org bookmarked, scientific calculator

SAFETY: N/A

VOCABULARY: Metric prefixes, Conversion

AUTHOR: Ron Browning – Modified from the original lesson plans created for the Seminole County Watershed Atlas.