

Measurement Module

Required Materials

Section 1-Measurement Units	
Non-Standard vs. Standard Units of Measurement	
Precision and Accuracy- absolute error, relative error	
Conversions Within Systems	
<i>Activity: The Big Roll</i>	1 roll of paper towels (thickness needs to be known) per group of 4, (Visit the website http://cstl-csm.semo.edu/journet/GeneralStuff/Ptowel.htm for information on brand-name paper towels and their thickness.), centimeter rulers, calculators, formulas (TAKS formula sheet for grade 8) - optional
Dimensional Analysis	
<i>Activity: What's the Rate?</i>	Calculators, small index cards or pieces of paper the size of small index cards per group of two, markers
Section 2-Two –and Three-Dimensional Figures	
Solid Geometric Figures	Polydrons (Platonic Solids set recommended) -- or a similar manipulative where various polygons can be interlocked together to form solids
<i>Activity: Polyhedra Patterns</i>	Coffee stirrers, play doh, scissors
Nets	Scissors, Polydrons (Platonic Solids set recommended) -- or a similar manipulative where various polygons can be interlocked together to form solids and nets
<i>Activity: Glass Wrap</i>	Black poster board (light weight), scissors, centimeter grid paper, tape
<i>Activity: Truly Trulli</i>	11"x17" paper or chart paper for making nets, scissors, tape, protractors, compasses, computer projection device (optional), computer with internet capabilities (optional)
Cross-Sections	
Perspectives/Views	One-inch cubes
<i>Activity: What's Your Perspective?</i>	Computer projection device, computer lab or lap top computers, Lab Packs (10 per pack) of Sunburst Communications "Building Perspective" software, Cuisenaire Rods , centimeter grid paper

Section 3- Formula Development and Applications	
Two-Dimensional Figures: Perimeter	Calculator
Two-Dimensional Figures: Area	Calculator
Two-Dimensional Figures: Circumference	Calculator
Three-Dimensional Figures: Surface Area	Calculator
Three-Dimensional Figures: Volume	Calculator
Section 4- Scale and Proportion	
Scale and proportion	
<i>Activity: Super Size or Down Size?</i>	One-inch cubes, one-inch grid/graph paper, color tiles, markers, graphing calculators
Applications of the Pythagorean Theorem	
Right Triangle Trigonometry	
<i>Activity: Without a Shadow of a Doubt!</i>	Mylar mirrors (4" x 4") from a crafts store, measuring tape (50' to 100')