MATHEMATICS – GRADE 7

Grade: 7
Academic Standard: 7.1
Academic Standard Indicator: 7.1.1
Core Standard: Yes

Standard Description (Academic or Indicator): Read, write, compare and solve problems using whole numbers in scientific notation.

Suggestion for Integrating International Content: Have students use scientific notation to express the popluations of various countries. *Extension*: Have students create problems for each other to solve using international country data. *Suggested resource*: http://www.nationmaster.com.

Grade: 7
Academic Standard: 7.1
Academic Standard Indicator: 7.1.6
Core Standard: No

Standard Description (Academic or Indicator): Understand and apply the concept of square root.

Suggestion for Integrating International Content: Have students explore different methods for finding the square root of a number. *Examples*: Heron's method; Chinese method; observing patterns.

Grade: 7
Academic Standard: 7.3
Academic Standard Indicator: 7.3.10
Core Standard: Yes

Standard Description (Academic or Indicator): Identify and describe situations with constant or varying rates of change and know that a constant rate of change describes a linear function.

Suggestion for Integrating International Content: Have students use diverse situations from around the world to obtain data that will produce linear relationships. Students can examine online newspapers from around the world to gather their data and analyze if the relationships are linear. *Example*: Using data from biologists studying the Irish Elk, which is an extinct animal, have students explore the changes over time of the length of the skull and the antler.

Grade: 7
Academic Standard: 7.4
Academic Standard Indicator: 7.4.4
Core Standard: No

Standard Description (Academic or Indicator): Construct two-dimensional patterns (nets) for three-dimensional objects, such as right prisms, pyramids, cylinders, and cones.

Suggestion for Integrating International Content: Have students study architecture around the world and, working in groups, construct 2D patterns and then fold them to form miniature 3D models of cities or buildings. *Examples*: Pyramids in Egypt; cities in Israel, Greece, Mexico.

Grade: 7
Academic Standard: 7.6
Academic Standard Indicator: 7.6.1
Core Standard: Yes

Standard Description (Academic or Indicator): Analyze, interpret, and display data in appropriate bar, line, and circle graphs and stem-and-leaf plots, and justify the choice of display.

Suggestion for Integrating International Content: Display international demographic or economic data using appropriate bar graphs, frequency tables, time plots, histograms, or circle graphs. *Suggested resource*: http://www.nationmaster.com.

Grade: 7
Academic Standard: 7.6
Academic Standard Indicator: 7.6.2
Core Standard: Yes

Standard Description (Academic or Indicator): Make predictions from statistical data.

Suggestion for Integrating International Content: Have students explore and make predictions from statistics about sports popular in non U.S. countries, such as cricket or rugby. Have students learn the meaning of these statistics, converting the information into appropriate decimals, fractions, and percents.