

MATHEMATICS – GRADE 3

Grade: 3

Academic Standard: 3.1

Academic Standard Indicator: 3.1.3

Core Standard: Yes

Standard Description (Academic or Indicator): Use words, models, and expanded form to represent numbers up to 1,000.

Suggestion for Integrating International

Content: Have students learn the basis of Roman Numerals, stemming from Ancient Rome. Have students write out and convert numbers up to 1,000 into Roman Numerals and expanded form. This lesson is particularly effective as a "Fun Friday" activity prior to Super Bowl Sunday. **Suggested resources:** Usborne Starting Point History books are particularly useful in explaining the basis for Roman Numerals; see also <http://www.usborne-quicklinks.com>.

Grade: 3

Academic Standard: 3.4

Academic Standard Indicator: --

Core Standard: No

Standard Description (Academic or Indicator): Students describe and compare the attributes of plane and solid geometric shapes and use their understanding to show relationships and solve problems.

Suggestion for Integrating International

Content: Have students look at famous paintings from various international artists to identify shapes. **Examples:** Quadrilaterals; triangles; lines of symmetry; right angles; acute or obtuse angles. A famous painting that includes many geometrical concepts is "Guernica" by Pablo Picasso, one of the most famous anti-war messages in the Western world.

Grade: 3

Academic Standard: 3.4

Academic Standard Indicator: 3.4.2

Core Standard: Yes

Standard Description (Academic or Indicator): Identify right angles in shapes and objects and decide whether other angles are greater or less than a right angle.

Suggestion for Integrating International

Content: Have students look at famous paintings from various international artists to identify shapes. **Examples:** Quadrilaterals; triangles; lines of symmetry; right angles; acute or obtuse angles. A famous painting that includes many geometrical concepts is "Guernica" by Pablo Picasso, one of the most famous anti-war messages in the Western world.

Grade: 3

Academic Standard: 3.4

Academic Standard Indicator: 3.4.6

Core Standard: Yes

Standard Description (Academic or Indicator): Use the terms point, line, and line segment in describing two-dimensional shapes.

Suggestion for Integrating International

Content: Have students learn about points and lines in relationship to maps by comparing distances on an Indiana map and a map of China or other international region.

Grade: 3

Academic Standard: 3.5

Academic Standard Indicator: --

Core Standard: No

Standard Description (Academic or Indicator): Students choose and use appropriate units and measurement tools for length, capacity, weight, temperature, time, and money.

Suggestion for Integrating International

Content: Have students convert a variety of measurements into the metric system. **Extension:** Post measurements in metric all over the classroom and use these, as appropriate, throughout the next days or weeks.

Grade: 3

Academic Standard: 3.5

Academic Standard Indicator: 3.5.7

Core Standard: Yes

Standard Description (Academic or Indicator): Estimate and measure weight using pounds and kilograms.

Suggestion for Integrating International

Content: Have students bring in various food boxes or containers that can be weighed on a scale. Then convert all containers from U.S. Customary units to metric (global) units. Have them compare the simple base ten form of the metric system versus U.S. customary system.

Extension: Have them discuss why the U.S. seems to be the only country that hasn't yet converted to metric systems.

Grade: 3

Academic Standard: 3.5

Academic Standard Indicator: 3.5.12

Core Standard: Yes

Standard Description (Academic or Indicator): Carry out simple unit conversions within a measurement system (e.g., centimeters to meters, hours to minutes).

Suggestion for Integrating International

Content: Have students find international weather reports to convert temperature from Celsius to Fahrenheit and vice versa. Look at a 10-day forecast for a particular major global city and make a few conversions together. Have students to practice first with learning partners and then independently. **Extension:** Have students find a 10-day forecast for the school location. Then have them convert it to metric. Post this metric forecast in the classroom and refer to it every day.
