



NIST and the Story of the SI Superheroes

When you shop for new clothes, how do you pick the right size? When you enter a swim meet, how do you know if you have won? When you buy a bunch of bananas, how do you get charged the right amount of money?

You measure things.

You measure the weight of the bananas. You measure your clothing size. You measure the time it takes you to finish a race.

Every day, the whole world depends on measurements.

Without good measurements, most things would not work. Cars, computers, cell phones, video games, refrigerators, medicines – none of these things can be made in our factories without many kinds of measurements. A car alone has more than 15,000 parts that all must fit together perfectly.

The National Institute of Standards and Technology (NIST) is one of our country's most important science and technology laboratories. **Our scientists and engineers are measurement experts.** They study how to measure just about anything you can imagine. They create the master “rulers” and standards that everyone else uses to measure things such as length, time, temperature, and pressure.

So the next time you are reading the ingredients on the side of a cereal box you should think of NIST. NIST standards help food manufacturers measure the nutrients in our food, so you get the proper nutrition. The electricity for the light bulb in your room is measured with NIST electric current standards. The volume of your milk carton, the temperature of the refrigerator that stores your milk, the clock that tells you to eat breakfast faster so that you don't miss your bus -- all of these things depend on NIST measurement research and standards.

NIST created the SI Superheroes to show you how measurements are important in our lives.

Each superhero represents a basic measurement unit in the international system of measurement or SI, also known as the metric system. The whole world, including the United States, uses the metric system for conducting science and most manufacturers use it for making products.

Amazingly, the seven basic units in the metric system can be used by themselves or in combination to measure just about anything in the universe. That's why we think they are superheroes!

Monsieur Kilogram – mass

Meter Man – length

Professor Second – time

Dr. Kelvin – temperature

Candela – brightness

Ms. Ampere – electric current

Mole – amount of substance

To watch the superheroes save the world with measurement go to www.nist.gov/kids