

Metric system — putting its best foot forward

Everybody in the United States will be going back to school in the near future, to relearn the art of measuring, as the country switches over to the metric system, which has already become standard in most parts of the world.

The change-over to metrics is not the first time the world has seen a conversion of measurement standards. Way back in ancient times, the Egyptians and Babylonians used the cubit, which was equivalent to approximately 20.6 inches.

As the cubit was, in effect, the length of a man's forearm and hand (the word "cubit" comes from the Latin for "elbow"), there was naturally quite a bit of variation.

In Egypt, the cubit was divided into smaller units of measure, which, like the cubit, took their names from parts of the human anatomy; there were seven "palms" in one cubit, and four "digits" in a palm.

The Greeks used the cubit as a standard of measurement, but preferred the foot. Their foot was approximately 12 1/2 inches in length, and it was broken up into 25 digits.

The Roman foot was slightly shorter — approxi-

mately 11.6 inches — and was divided into 16 digits.

The positive aspect of this system of measurement was that one carried the measuring tools with one at all times; the negative aspect, that standardization was non-existent, because of the varying physiques of the people lending arms and feet as measuring tools.

It wasn't till the late 1700s that any true standardization of measurement began in Europe. In England, the yard was adopted as the standard unit of length measurement; it was divided into feet and inches.

A metal bar known as the standard measure was kept by the English government — it was considered to be the absolute definition of what a yard actually measured. But, because metals shrink and expand with changes of temperature, even this bar was less than absolute.

By the end of the 19th century, however, scientific advances permitted the British authorities to substitute a more accurate arbiter of absolute measurement.

At that time, the imperial yard — the distance between two points located on gold studs which had been fastened

to a bronze bar, when the bar was at a certain temperature — was devised.

In the meantime, despite early exposure to a wide variety of measuring systems, America had adopted the English system.

The U.S. government had its own absolute standard — a brass bar, calibrated in inches, with a yard being defined as that length between the 27th and 63rd inch marks.

While the United States was refining its chosen system of measurement, the move toward metrication had already begun across the Atlantic.

As far back as the late 1700s, a system of decimal measurement had been considered and, in 1791, the Paris Academy of Science recommended adopting a metric system of measurement.

The standard meter found its physical complement in a platinum bar whose length equaled one ten-millionth of one of the earth's meridional quadrants. By 1927, this was refined to define the length of the meter using light waves, which cannot either be tampered with or destroyed.

The metric system may

seem, at first glance, confusing to minds which are full of feet, inches and yards. However, it is actually far easier to learn and use than the present system, as it is based on the decimal system; that is, everything is divided into units of ten.

The basic units are the meter, which measures length and is equal to approximately 1.1 yards; the liter, which measures volume, and equals approximately 1.06 quarts; and the gram, which is a measure of weight, and equals approximately 1/28 of an ounce.

The prefix which is attached to the basic unit of measure indicates whether it is to be multiplied or divided, and by how much.

The Greek prefixes — deca, hecto and kilo — indicate that the basic unit is to be multiplied by, respectively, 10, 100 and 1,000.

The Latin prefixes — deci, centi and milli — indicate that the basic unit is to be divided by, respectively, 10, 100 and 1,000.

Rulers which have been calibrated according to the metric system are most frequently marked off in centimeters.

Road signs indicating distance will most likely be expressed in kilometers — 1,000 meter units.

Weight will most likely be determined in grams, for small quantities, and in kilograms (one kilogram equals approximately 2.2 pounds) for heavier ones. Minuscule quantities will be weighed in milligrams.

Cups that are used for measuring volume will be in liters and milliliters.

A fourth, related area of measurement involves temperature. Presently, we are using the Fahrenheit system but, along with the conversion to metric is coming a conversion to Centigrade, or Celsius, which is in common use around the world.

The boiling point — 212° in

the Fahrenheit scale — is 100° Centigrade; the freezing point — 32° Fahrenheit — is 0° Centigrade.

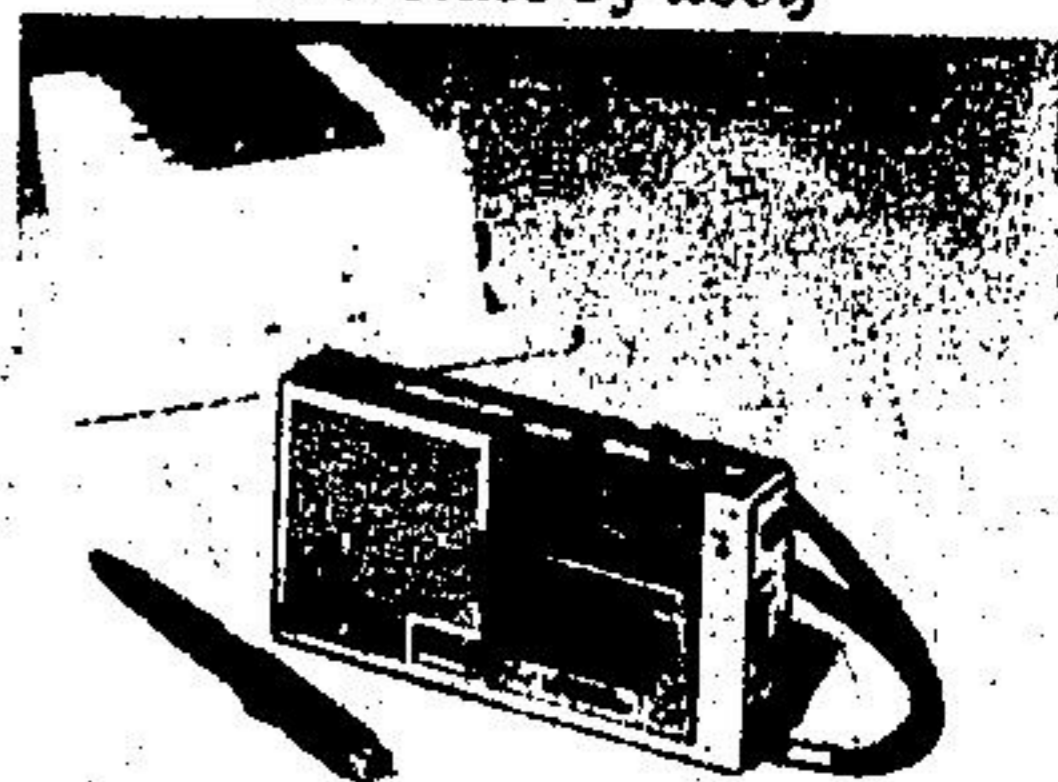
To convert temperatures from Fahrenheit to Centigrade, or vice versa, is slightly more complex than the other conversions. To convert from Fahrenheit to Centigrade, subtract 32° then multiply by 5/9.

To convert from Centigrade to Fahrenheit, simply reverse the process — that is, first multiply the Centigrade temperature by 9/5, then add 32°.

Wattage Energy

The wattage of a bulb does not measure the amount of light it gives, but rather the amount of energy needed to light it.

In a class by itself



A MICRO-CASSETTE TAPE RECORDER from Magnavox makes a perfect back-to-school gift for any student. Easily held in the palm of a hand, the Magnavox recorder (Model D6710) can be carried in a coat pocket or backpack, and lets students tape and review lectures and assignments. The recorder features two speeds, built-in condenser microphone, power level indicator and operates on AC or DC current. Included is an adaptor plug for hooking into electrical outlets and a 60-minute cassette tape.

Record your child's growth with professional school photographs

School photographs of your child taken each year from kindergarten through upper grades are a great way to remember his or her growing years.

To make the most of this unusual opportunity, professional photographers offer advice to parents about preparing their children for a date with the professional school photographer.

Before you send your youngster off on picture day, give your child a head-to-toe inspection to be sure he or she will look well groomed in both the individual school portrait as well as photos that show the

children full length.

The professionals suggest outfitting your child in something that is solid colored or has a subdued pattern. Garments made of wrinkle-free fabrics will look fresh even if the photographs are made late in the school day.

The day before picture day, check to see if your child's bangs need a trim. When you get your little girl ready for school on picture day, keep her hair in place with a barrette or ribbon.

Remember to give your son a small comb so he can fix his hair before he sits for the photographer. You don't want

wardward locks to detract from their bright shiny smiles.

Once you send them off to school or studio, you can leave the rest to the professional photographer who is experienced in taking winsome and memorable photos of even the most camera-shy child.

Color enlargements of professional school photos make wonderful gifts for grandparents, aunts and uncles, and family friends.

Be sure to order plenty of prints and enlargements on Kodak paper. When set in frames, these photos make attractive decorating accessories for your home or office.

Saving time is student priority

As just about every college student reports, the hardest part of school is not calculus or chemistry but finding enough time for everything there is to do.

That's why time management hints and helpers can be the most valuable things you could give. Here are some ideas you can share with your favorite off-to-college student.

● Be a selective joiner. Begin by choosing just one extracurricular activity — a

sport, newspaper, whatever. Most serious students find that one is all they can handle.

● If you feel so overwhelmed by work that you don't know where to start, borrow a trick from top executives and make a list: most important thing first, then down in order.

Start working from the top of the list; if you don't get all the way through, you can use the rest at the top of the next day's list.

● Take a breather for some

fresh air and exercise during a long work/study session; time spent on a 10-minute walk will be more than repaid by increased concentration afterward.

● Use time-saving methods. For example, eat at a cafeteria in your dorm when possible instead of the one across campus.

● Try out various places for studying — your room, the library, a lounge, etc. — and see where you seem to accomplish the most.

Learn to Drive Right

Y
D

Over 100,000 graduates recommend

Young Drivers of Canada

Training centres coast to coast

- Driver training for all ages
- Course fee is income tax deductible by the student
- Your choice of automatic or standard shift cars
- Enquire about insurance premium reductions for YD graduates
- Private in-car instruction
- Free pick up at home for in-car instruction
- Approved by the Ontario Safety League
- You only learn to drive once — do it right!

NEXT COURSE STARTS:

September 22nd, 1982

Wednesday & Thursday Evenings
6:30 - 9:30 p.m.

16 Mountainview Rd. S., Georgetown
877-0751

McDonald's Colouring Contest

AUSTRALIA

There sure are some strange looking creatures that hang around the Great Barrier Reef!

TAKE A TOUR OF McDONALD'S

and see what goes on behind the scenes.

Great for groups of all ages.

To reserve your tour, call McDonald's at **877-0221**

Win McDonald's Gift Certificates And Watches

Get your Crayons and Fun Markers ready to use immediately for drawing your own McDonald's... Entries will be judged on originality and best results. They will be held for six weeks "until McDonald's" Winner is one or more to you.

SUBMIT YOUR ENTRY TO THE HERALD

NAME

ADDRESS

TELEPHONE

AGE

Hey Kids! Nothing To Do?

ENJOY A HOT WEATHER SWIM IN THE GEORGETOWN LIONS POOL!

LAST WEEK'S WINNERS

NATALIE Y
8 Lucinda Pl
Georgetown

NICKY PLUMADORE
47 Sun St.
Georgetown