

**Some References on
Metric Information
Including a Chart on
All You Need to Know About Metric**

NBS LC 1070
January 1977
Supersedes NBS Special Publication 389

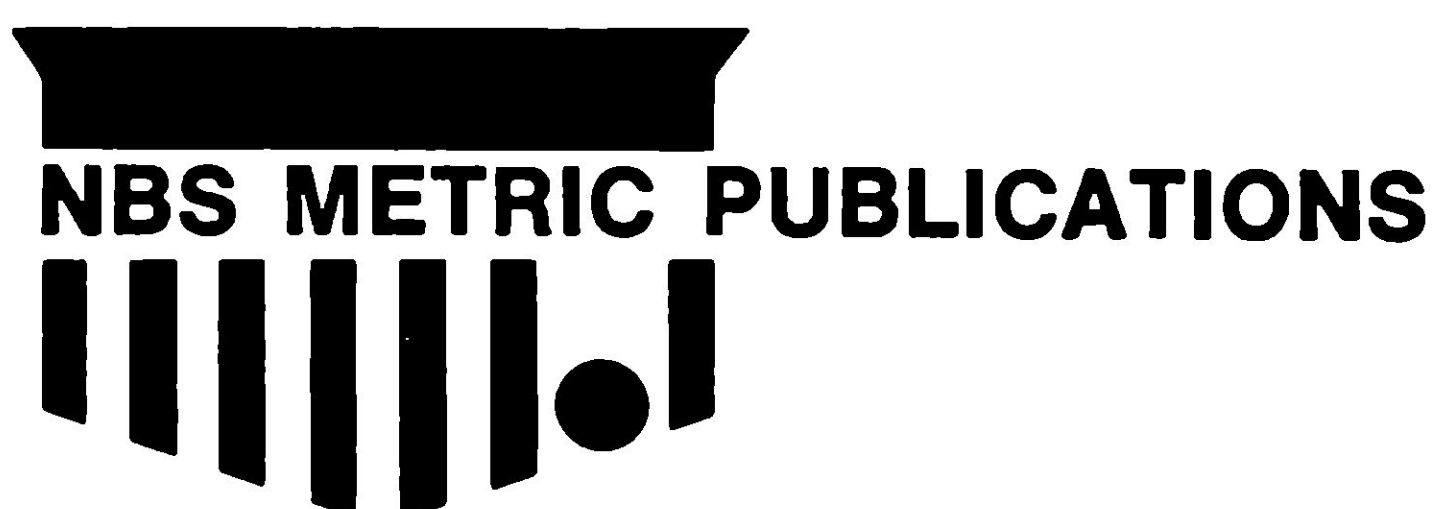
**U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards**



See Page 5 for Ordering Information

The United States joined the worldwide trend toward adoption of the metric system of measurement with the enactment of the Metric Conversion Act of 1975. Several years prior to that action, the Congress asked the National Bureau of Standards to make a thorough investigation of the metric question. That investigation involved public hearings and surveys of almost every activity of our society—from education and the consumer to international trade and national security. The findings are given in the following summary and 12 detailed reports:

A METRIC AMERICA: A DECISION WHOSE TIME HAS COME (Summary Report to the Congress). D. V. DeSimone, NBS SP 345, 190 pages (July 1971), SD Stock No. SN 003-003-00884-2.	\$2.70
INTERNATIONAL STANDARDS. R. D. Huntoon et al., NBS SP345-1, 145 pages (Dec. 1970), SD Stock No. SN 003-003-00731-5.	\$1.70
FEDERAL GOVERNMENT: CIVILIAN AGENCIES. R. E. Clark and J. M. Tascher, NBS SP 345-2, 324 pages (July 1970), SD Stock No. SN 003-003-00824-9.	\$3.20
COMMERCIAL WEIGHTS AND MEASURES. S. L. Hatos, NBS SP 345-3, 109 pages (July 1971), SD Stock No. SN 003-003-00859-1.	\$1.75
THE MANUFACTURING INDUSTRY. L. E. Barbrow, Coordinator, NBS SP 345-4, 165 pages (July 1971), SD Stock No. SN 003-003-00825-7.	\$1.95
NONMANUFACTURING BUSINESSES. E. D. Buntin and J. R. Cornog, NBS SP 345-5, 192 pages (Aug. 1971), SD Stock No. SN 003-003-00898-2.	\$2.15
EDUCATION. B. D. Robinson, NBS SP 345-6, 209 pages (July 1971), SD Stock No. SN 003-003-00858-3.	\$2.30
THE CONSUMER. B. D. Rothrock, NBS SP 345-7, 146 pages (July 1971), SD Stock No. SN 003-003-00864-8.	\$1.75
INTERNATIONAL TRADE. G. F. Gordon, NBS SP 345-8, 181 pages, (Aug. 1971), SD Stock No. SN 003-003-00895-8.	\$2.10
U.S. METRIC STUDY INTERIM REPORT: DEPARTMENT OF DEFENSE. D.V. DeSimone, NBS SP 345-9, 132 pages (June 1971), (Order as com 71-50305 from the National Technical Information Service, 5285 Port Royal Rd., Springfield, VA. 22151.)	\$5.50 (from NTIS only)
A HISTORY OF THE METRIC CONTROVERSY IN THE UNITED STATES C. F. Treat, NBS SP 345-10, 306 pages (Aug. 1971), SD Stock No. SN 003-003-00879-6.	\$3.05
ENGINEERING STANDARDS. R. D. Stiehler, NBS SP 345-11, 257 pages (July 1971), SD Stock No. SN 003-003-00835-4.	\$2.70
TESTIMONY OF NATIONALLY REPRESENTATIVE GROUPS. J. V. Odom, Editor, NBS SP 345-12, 174 pages (July 1971), SD Stock No. SN 003-003-00865-6.	\$2.00



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The National Bureau of Standards has compiled six useful items into a single official metric information kit which is available for sale. Priced items are also sold individually at the prices listed. Ordering information is on the back of this publication.

COMPLETE NBS METRIC KIT, NBS SP 410, SD Stock No. SN 003-003-01736-1. \$2.00 per kit
25% discount for 100 or more

Metric Conversion Card, NBS SP 365, SD Stock No. SN 003-003-1068-5 \$4.70 per 100

For Good Measure (ruler), NBS SP 376, SD Stock No. SN 003-003-1080-4. \$4.70 per 100

Brief History of Measurement Systems with Chart of the Modernized Metric System, NBS SP 304A, SD Stock No. SN 003-003-1713-2. \$5.70 per 100

What About Metric?, NBS CIS 7, SD Stock No. SN 003-003-1688-8. \$.35
\$23.50 per 100

America Joins the Metric World, Reprinted from DIMENSIONS/ NBS (February 1976) Not sold separately

NBS Metric Information (bibliography), NBS LC 1070 (includes chart "All You Need to Know About Metric") Not sold separately

The following are other metric materials published by the National Bureau of Standards.

FACTORS FOR HIGH-PRECISION CONVERSION—U.S. CUSTOMARY AND METRIC UNITS. NBS LC 1071, 8 pages (July 1976). See page 5

METRIC STYLE GUIDE (for the News Media). NBS LC 1069, 6 pages (September 1976). See page 5

UNITS AND SYSTEMS OF WEIGHTS AND MEASURES. NBS LC 1035, 26 pages (1976). See page 5

HOUSEHOLD WEIGHTS AND MEASURES. NBS SP 430, 2 pages (1975), SD Stock No. SN 003-003-01542-3. \$.25

THE INTERNATIONAL SYSTEM OF UNITS (SI). NBS SP 330, 43 pages (1974), SD Stock No. SN 003-003-01326-9. \$.80

WALL CHART OF THE MODERNIZED METRIC SYSTEM. NBS SP 304, 1 page (1972), SD Stock No. SN 003-003-00079-5. \$.65

SUCCESSFUL EXPERIENCES IN TEACHING METRIC. NBS SP 441, 115 pages (1976), SD Stock No. SN 003-003-01568-7. \$2.30

INTERNATIONAL BUREAU OF WEIGHTS AND MEASURES. NBS SP 420, 256 pages (1975), SD Stock No. SN 003-003-01408-7. \$3.00



ADDITIONAL SOURCES OF METRIC INFORMATION

See Page 5 for Ordering Information

American National Metric Council, 1625 Massachusetts Ave., NW., Washington, D.C. 20036. Established originally under the auspices of the American National Standards Institute to provide guidance to industrial and commercial segments of society.

American National Standards Institute (ANSI), 1430 Broadway, New York, N.Y. 10018. Publishes national standards and metric practice guides.

American Society for Testing and Materials, 1916 Race St., Philadelphia, PA 19103. Publishes assorted metric aids.

The Department of Defense has reproduced for free distribution two NBS metric items—the Modernized Metric System (wall chart in color) and the Metric Conversion Card (wallet card)—which are available upon request from your nearest Army school representative or Army reserve center.

National Council of Teachers of Mathematics, 1906 Association Drive, Reston, VA 22091. Publishes listings of organizations marketing metric material for educators.

National Science Teachers Association, 1201 Sixteenth St., NW., Washington, D.C. 20036. Publishes metric kit for teachers.

Science Service, 1719 N St., NW., Washington, D.C. 20009. Publishes “Things-of-Science” metric kit for students.

U.S. Metric Association, Sugarloaf Star Route, Boulder, CO 80302. Distributes educational material and publishes a quarterly newsletter, which is available to members.

National metric conversion boards in other countries can supply general information about conversion in their respective countries and can also provide referrals to other organizations therein. Their addresses are listed below.

Metric Conversion Board
18-24 Chandos Street
St. Leonards, N.S.W. 2065 Australia

Metric Advisory Board
P. O. Box 10-243
The Terrace
Wellington, New Zealand

South African Bureau of Standards
Private Bag X191
Pretoria, South Africa

Metrication Board
22 Kingsway
London WG2B 6LE England

Metrication Board of Zambia
P. O. Box 1968
Lusaka, Zambia

Metric Commission
320 Queen Street
Ottawa K1A 0H5 Canada

ORDERING INFORMATION

Single copies of metric materials which are not priced are available from:

Metric Information
National Bureau of Standards
Washington, D.C. 20234

For quantity copies reproduce freely.

Other government publications can be purchased from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

When ordering include the SD Stock Number for each publication. All orders must contain remittance or your account number. Remittance should be made by check or money order payable to the Superintendent of Documents. Do not send postage stamps.

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All You Will Need to Know About Metric

(For Your Everyday Life)

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Metric is based on Decimal system

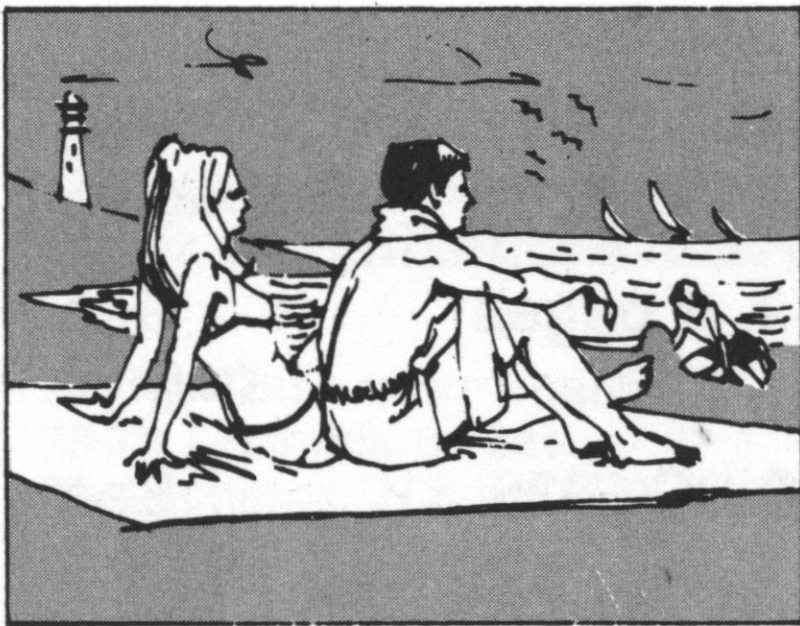
The metric system is simple to learn. For use in your everyday life you will need to know only ten units. You will also need to get used to a few new temperatures. Of course, there are other units which most persons will not need to learn. There are even some metric units with which you are already familiar: those for time and electricity are the same as you use now.

BASIC UNITS

- METER:** a little longer than a yard (about 1.1 yards)
- LITER:** a little larger than a quart (about 1.06 quarts)
- GRAM:** a little more than the weight of a paper clip



25 DEGREES FAHRENHEIT

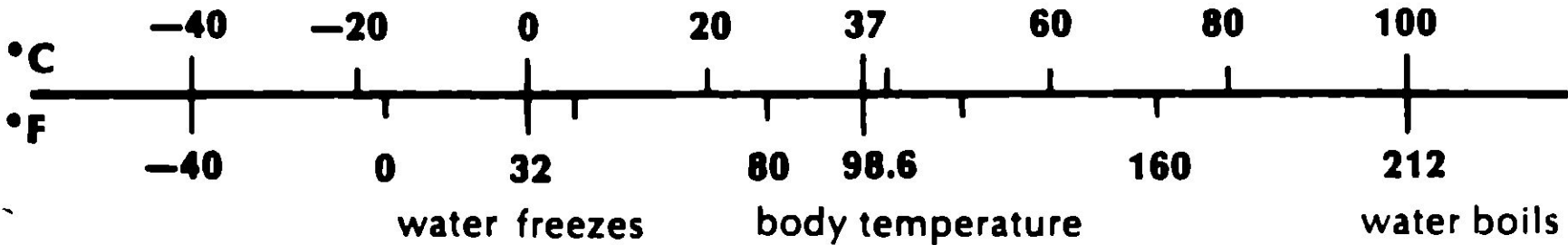


25 DEGREES CELSIUS

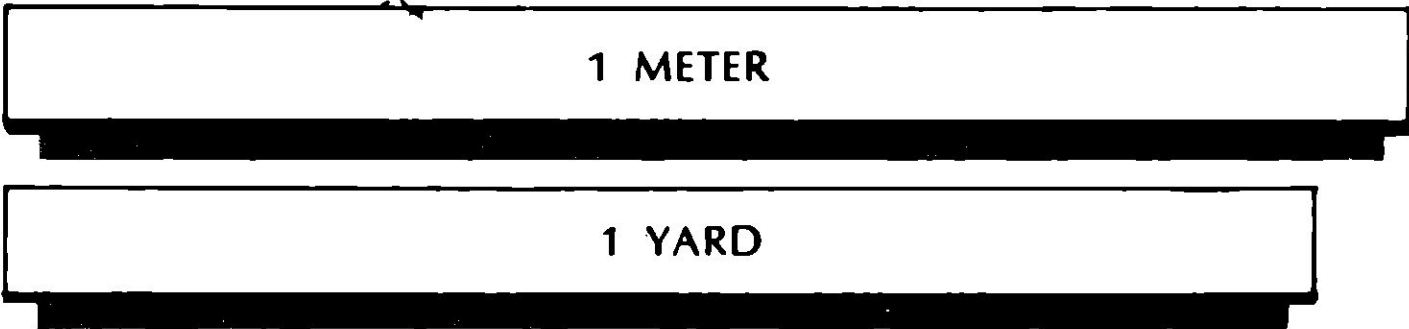
WEATHER UNITS:

FOR TEMPERATURE
degrees Celsius

FOR PRESSURE
kilopascals are used
100 kilopascals = 29.5 inches of Hg (14.5 psi)



(comparative sizes are shown)



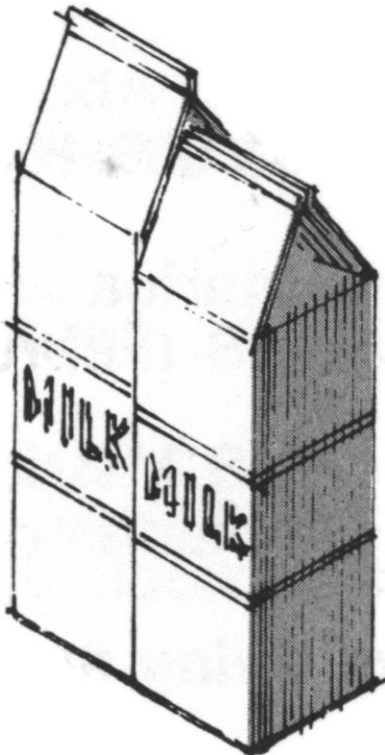
COMMON PREFIXES

(to be used with basic units)

- milli:** one-thousandth (0.001)
- centi:** one-hundredth (0.01)
- kilo:** one-thousand times (1000)

For example:
1000 millimeters = 1 meter
100 centimeters = 1 meter
1000 meters = 1 kilometer

1 LITER



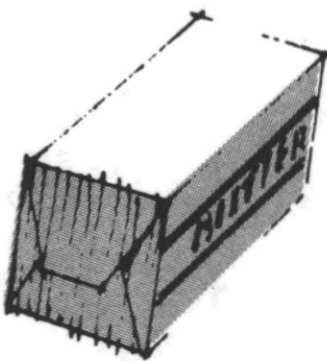
1 QUART

OTHER COMMONLY USED UNITS

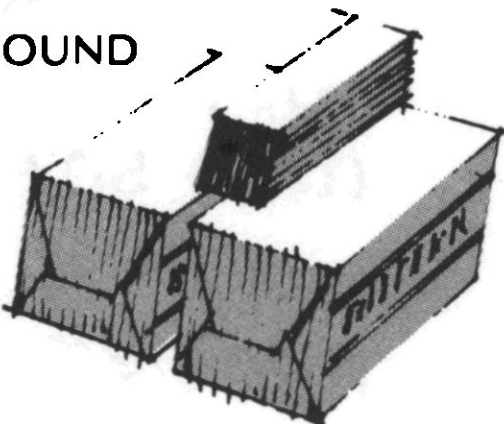
- millimeter:** 0.001 meter diameter of paper clip wire
- centimeter:** 0.01 meter a little more than the width of a paper clip (about 0.4 inch)
- kilometer:** 1000 meters somewhat further than 1/2 mile (about 0.6 mile)
- kilogram:** 1000 grams a little more than 2 pounds (about 2.2 pounds)
- milliliter:** 0.001 liter five of them make a teaspoon

OTHER USEFUL UNITS

- hectare:** about 2 1/2 acres
- metric ton:** about one ton



1 POUND



1 KILOGRAM

