

# Metric Units – Abbreviations and usage

| Rule                                                                                                                             | Correct Example                            | Incorrect Example                          |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|
| Use a decimal to express partial units. Avoid using fractions to express partial units.                                          | 1.25 m<br>0.75 kg                          | $1\frac{1}{4}$ m<br>$\frac{3}{4}$ kg       |
| Use a zero in front of the decimal point when the numerical value is smaller than one.                                           | 0.5 g                                      | .5 g                                       |
| In compound units formed by multiplication, use the raised period (product dot) to indicate multiplication.                      | N·m<br>(newton meter)                      | Nxm<br>(newton meter)                      |
| Use the solidus (/) or a negative exponent to indicate division.                                                                 | m/s<br>$m \cdot s^{-1}$                    | $\frac{m}{s}$ or $m \div s$                |
| Use only one solidus in any given expression                                                                                     | $m/s^2$                                    | m/s/s                                      |
| Use lower case letters to write all unit symbols <i>except</i> those that stand for proper names                                 | m (meter)<br>g (gram)                      | M (meter)<br>G (gram)                      |
| Use a capital letter to start unit symbols that stand for proper names.                                                          | N (newton)<br>Pa (pascal)                  | n (newton)<br>PA (pascal)                  |
| Use a small script <i>ℓ</i> for liter rather than a typed or printed “l”, whenever possible. “l” is easily mistaken for a “one”. | <i>ℓ</i>                                   |                                            |
| Use all symbols in the singular form (no plural “s”s)                                                                            | 10 m (meters)                              | 10 ms<br>10 m’s                            |
| Do not put periods after unit symbols (as with abbreviations)                                                                    | The pencil is 20 cm long.                  | The pencil is 20 cm. long.                 |
| Separate the numerical value from the symbol by a space                                                                          | 21 m<br>37 EC                              | 21m<br>37EC, 37E C                         |
| When writing symbols for squared or cubed quantities, use the appropriate superscript.                                           | $m^2$<br>$m^3$                             | sq m<br>cu m                               |
| Use lower case letters to write out unit names.                                                                                  | The newton is the SI unit of force.        | The Newton is the SI unit of force.        |
| (Exception: the “C” in “degrees Celsius” is always capitalized)                                                                  | The temperature is twenty degrees Celsius. | The temperature is twenty degrees celsius. |
| Do not use a prefix alone (in writing or speech)                                                                                 | kilogram                                   | kilo                                       |
| Do not mix different units of the same kind in one measurement                                                                   | 8.6 cm<br>86 mm                            | 8 cm 6 mm                                  |
| The degree symbol (°) is not used with the Kelvin temperature scale                                                              | 273 K                                      | 273 EK                                     |