Add metric facts to the faces of your cubic decimeter. Some of the facts are: Consider the following headings for each of the six faces of your cubic decimeter (Liter)

## LENGTH; MASS; VOLUME; TEMPERTATURE; HISTORY; THE SEVEN BASIC UNITS;

A cubic $\mathrm{dm}\left(\mathrm{dm}^{3}\right)$ filled with water at $4^{\circ} \mathrm{C}$ will have a mass of 1000 g or 1 kg . A cubic $\mathrm{dm}\left(\mathrm{dm}^{3}\right)$ filled with water at $4^{\circ} \mathrm{C}$ will have a capacity of 1000 mL (milliliter) A name for the $\mathrm{dm}^{3}$ is liter ( L ). A named for the $\mathrm{cm}^{3}$ is milliliter ( mL )


The 10 cm Cube has a volume of $1000 \mathrm{~cm}^{3}$ (cubic centimeters)
If you fill the 10 cm Cube full of water, we have 1 L (liter) of water or 1000 mL of water. And the 10 cm Cube full of water would have a mass of 1 kg (kilogram)

Definition: a cm ${ }^{3}$ (centimeter cube) filled brim full of water at $4^{\circ} \mathrm{C}$ has a mass of 1 g . Thus a liter or $\mathrm{dm}^{3}$ full of water has a mass of 1000 g or 1 kg and a $\mathrm{m}^{3}$ (about the size of the box your washing machine would be packed in) has a mass of 1000 kg or $1 \mathrm{t}(1 \mathrm{t}=1000 \mathrm{~kg}$ a metric ton)

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\text { "Water" } \quad \mathrm{cm}^{3} \leftrightarrow 1 \mathrm{~g} ; \quad \mathrm{dm}^{3} \leftrightarrow 1 \mathrm{~kg} ; \quad \mathrm{m}^{3} \leftrightarrow 1 \mathrm{t} \quad \text { "Beautiful!!" }
$$

$100^{\circ} \mathrm{C}$ water boils; $37^{\circ} \mathrm{C}$ is normal body temperature; $21^{\circ} \mathrm{C}$ is room temperature;
$28^{\circ} \mathrm{C}$ is beach weather! $0^{\circ} \mathrm{C}$ water freezes
The unit of Volume I the cubic meter $\left(\mathrm{m}^{3}\right)$ The liter $(\mathrm{L})$ is a special unit for the measurements of liquids. A solid the size of this 10 cm Cube would have a volume of $1000 \mathrm{~cm}^{3}$, but liquid filling this 10 cm Cube would have a volume of 1 L (or 1000 mL ).
The Cubic meter $\left(\mathrm{m}^{3}\right)$ is preferred for larger volumes such as fluids in large storage tanks.
1 L (liter) $=1000 \mathrm{~mL}$ (millimeter) $=1 \mathrm{dm}^{3}$ (cubic decimeter)
SPEED will be in $\mathrm{km} / \mathrm{h}$ (kilometers per hour)
The four Main Reason "Why Metric is preferred "

1. The SI Metric System Was Scientifically Developed
2. Ease of Computation
3. Economic \& Trade Reasons
4. This is a METRIC WORLD (Universal language of measurement)
