


# UNIT 2: MEASUREMENT

## Topics Covered:

- Qualitative and Quantitative
- Dimensional Analysis
- SI System
- Scientific Notation
- Significant Figures
- Density

# UNIT OBJECTIVES

- Use the SI system in taking and recording measurements in terms of significant figures, precision and accuracy
  - Understand temperature in terms of Kelvin and Celsius
  - Perform unit conversions including using scientific notation
  - Understand matter in terms of mass, volume and density
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The background consists of several overlapping geometric shapes in shades of orange and white. A large white triangle is positioned in the upper left, with its hypotenuse running from the top left towards the bottom right. The rest of the background is filled with various shades of orange, creating a dynamic, abstract composition.

# QUALITATIVE AND QUANTITATIVE

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- Qualitative: Gives a description  
"Quality"  
example: Ms. Shomshor's shoes are red
- Quantitative: Gives a definite, usually numeric  
"Quantity"  
example: Ms. Shomshor has 55 pairs of shoes

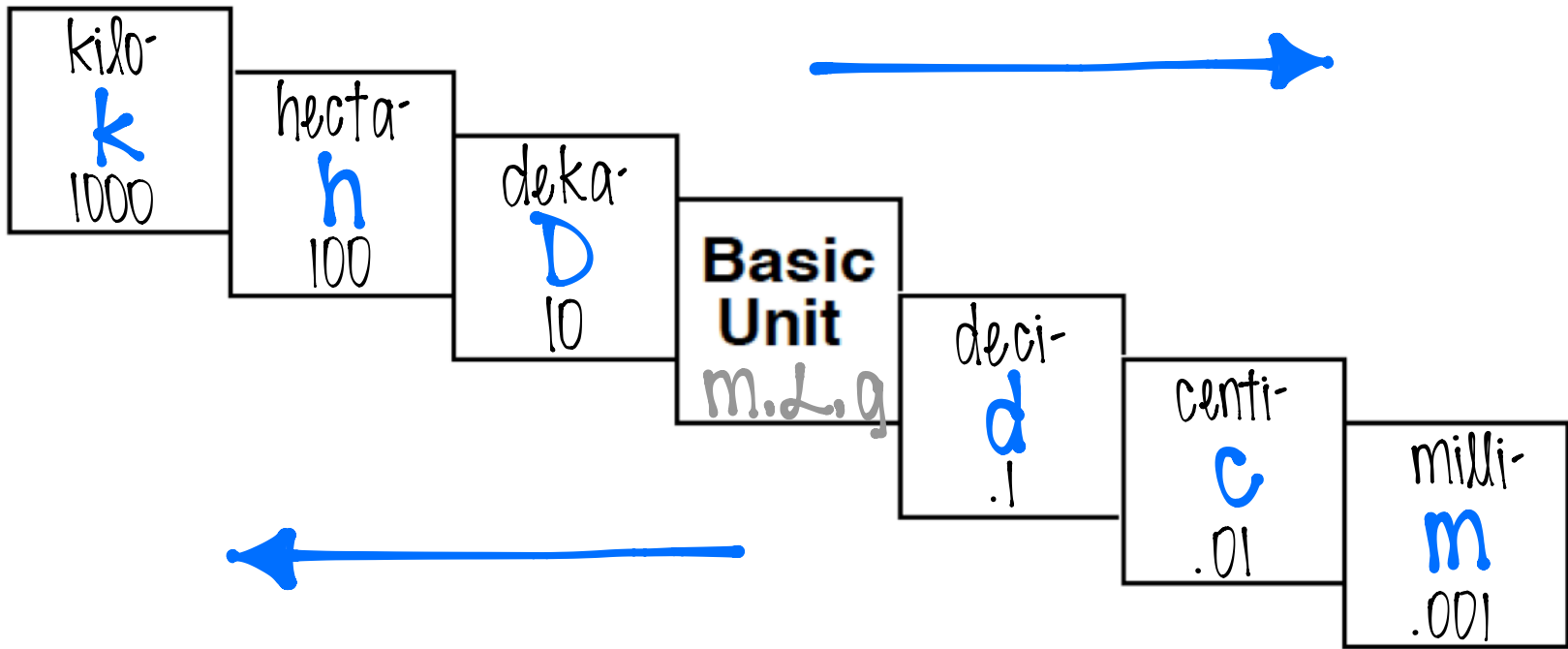
SI SYSTEM

# SI SYSTEM

## Le Système International d'Unités (SI) Base Units


- Amount of Substance: mole (mol)
- Length: meter (m)
- Mass: gram (g)
- Temperature: Kelvin (K)
- Time: second (s)
- Volume: liter (L)


# SI SYSTEM




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1.  $1 \text{ kg} = \underline{1,000,000} \text{ mg}$   $1.$  

2.  $21.5 \text{ km} = \underline{21,500} \text{ m}$   $21.5$  

3.  $6.7 \text{ dL} = \underline{0.67} \text{ L}$   $6.7$  

4.  $6.7 \text{ DL} = \underline{67} \text{ L}$   $6.7$  

5.  $0.4 \text{ cg} = \underline{0.0004} \text{ hg}$    $.4$