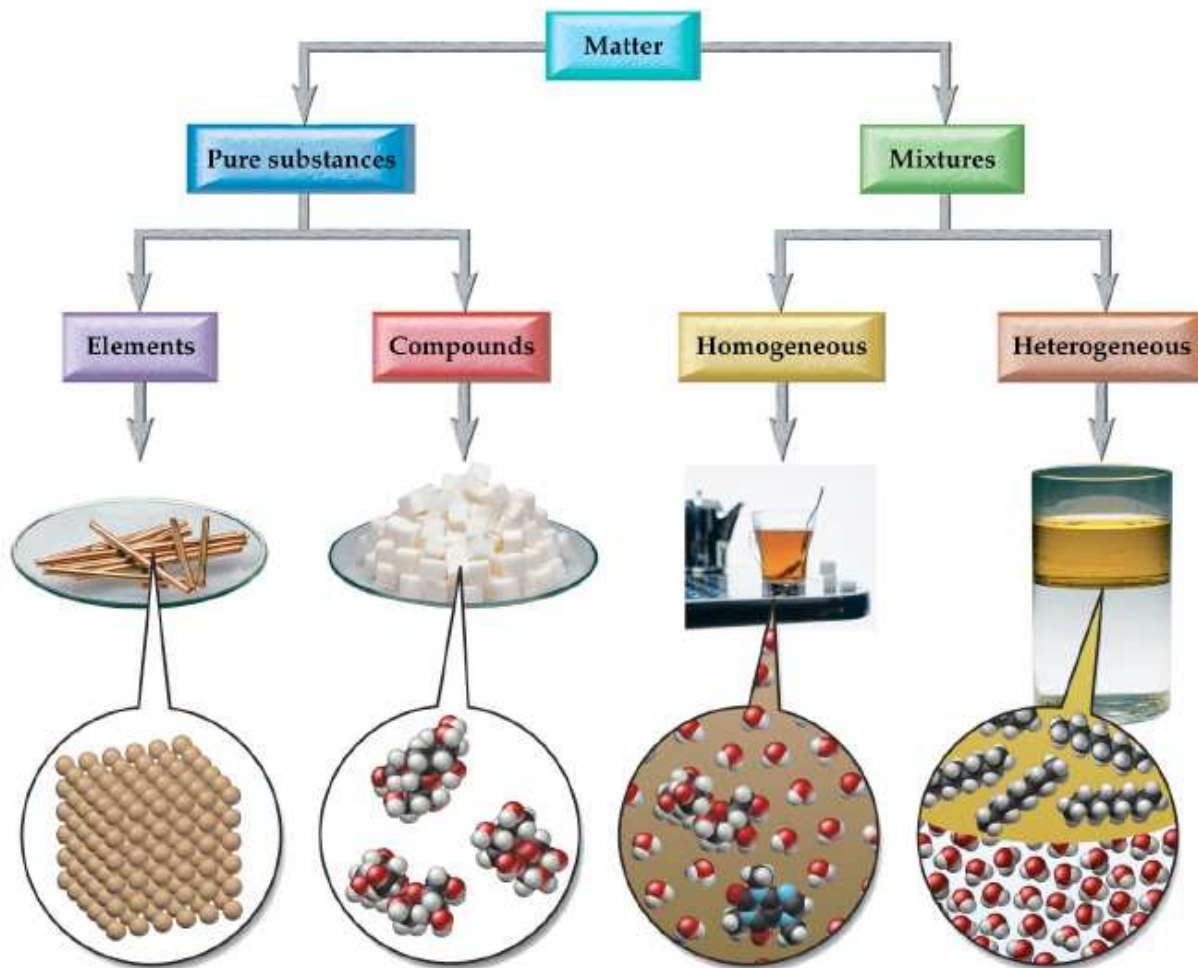


Matter has both mass and volume



Pure substances:

- 1 type of matter
- fixed composition
- has formula, ex.  $H_2O$   
(2:1 ratio H:O)

Mixtures:

- 2 or more types of matter
- variable composition

Elements, compounds, and mixtures

**Elements** have only one type of: atom



smallest piece of element

**Compounds**: pure substances with more than one different element

Chemical formulas: show ratio of elements in a pure substance

NaCl:

H<sub>2</sub>O:

Fe:

Br<sub>2</sub>:

**Homogeneous mixtures**:

**Heterogeneous mixtures**: