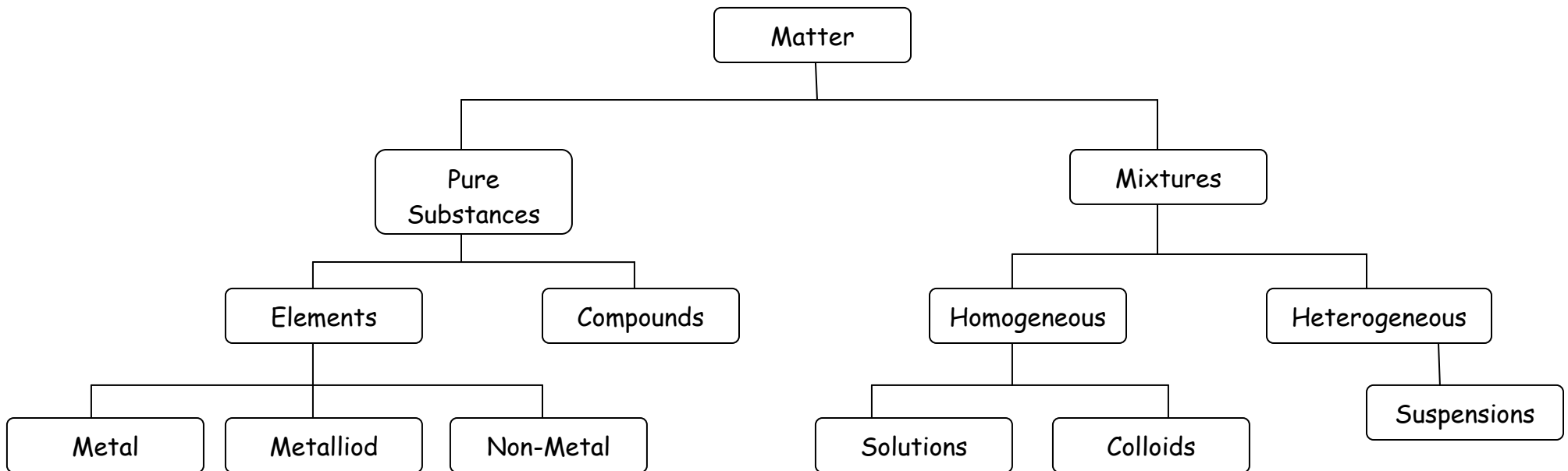


Classification of Matter Flowchart



Pure Substances: Constant composition. All samples have the same proportion of components. One set of properties.

Mixture: Variable composition. Same components may be mixed in different proportions. Composed of more than one substance.

Element: Composed of only one type of atom, cannot be decomposed. (e.g. Silver, gold, potassium, cobalt etc)

Compounds: Composed of MORE than one type of atom, CAN be decomposed (e.g. H₂O, NaCl)

Homogenous: appears to be the same throughout. Any region of a homogeneous solution will be chemically *identical* to any other region

Heterogeneous: does NOT appear to be the same throughout. A.K.A *mechanical mixture*. Can separate by picking/shaking etc.

Solutions: Chemical species DO NOT aggregate to form particles. Can be **aqueous** (dissolve in water). Solute is the minor component of the mixture, solvent is the major component (what the solute is dissolved in). E.g. Salt water, pop

Colloids: Particles between 1nm and 1µm dispersed throughout a continuous medium. Unlike a solution, can be in a different phase than the dispersion medium in which they are suspended.

Suspensions: Particles bigger than 1 µm are spread through a liquid, but do not dissolve. Can have solid in liquid, liquid in liquid