



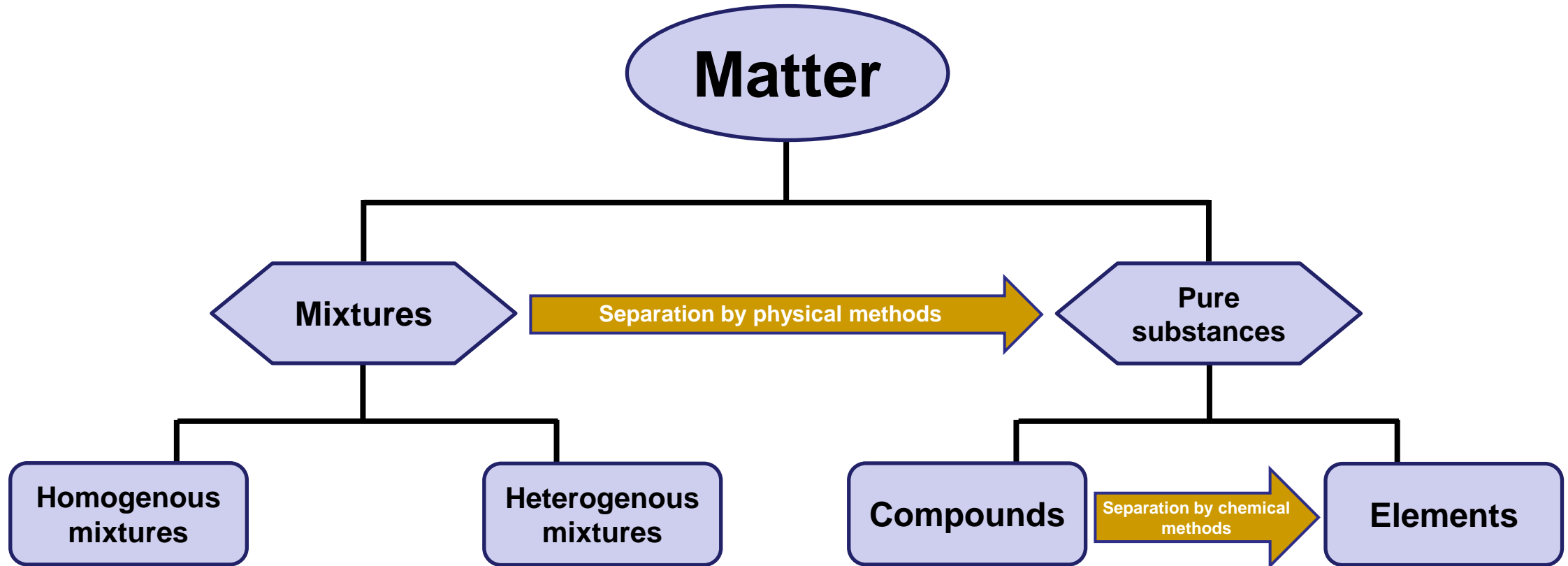
General Chemistry



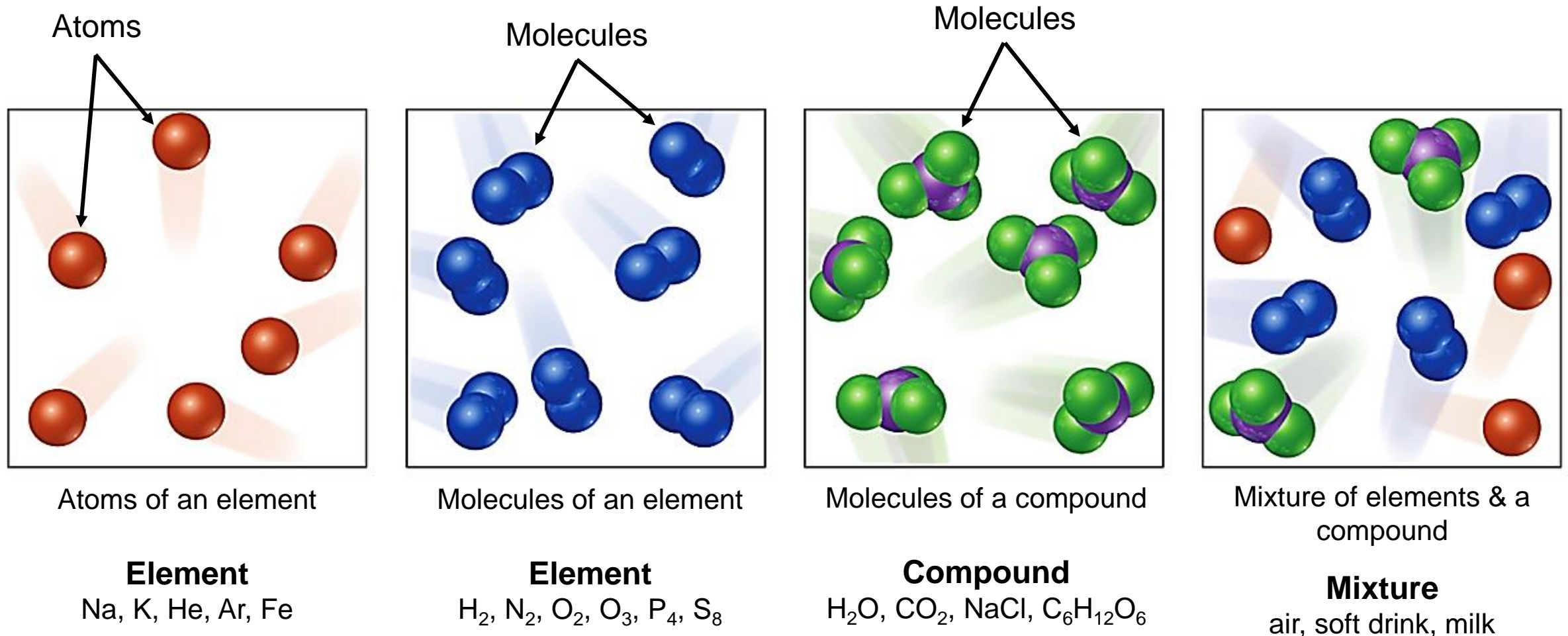
Matter and Measurement

Classification of Matter

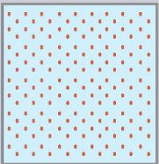
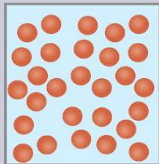
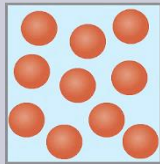



Classification of matter



Classification of matter according to its composition



Types of mixtures

Property	Solutions		Colloids		Suspensions	
Particle size	Less than 1 nm		1 to 100 nm		More than 100 nm	
Appearance	Clear, homogeneous mixture. Particles are invisible to the naked eye as well as under a microscope		Cloudy, appears as a homogeneous but can exist as a heterogeneous mixture. Particles are invisible to the naked eye but are visible under powerful microscopes		Cloudy, heterogeneous mixture. Particles are visible to the naked eye	
Optical properties	Transparent, light can pass through		Opaque or translucent, they can scatter light		Opaque, they do not transmit light	
Settling	Particles do not settle at the bottom of the container		Particles do not settle down under normal conditions, but can settle via centrifugation		Particles can settle down under the influence of gravity if the settling process is not distributed	
Separation	The solute and solvent cannot be separated by ordinary filtration or by ultrafiltration		The solute and solvent cannot be separated by ordinary filtration but can be separated by ultrafiltration		The solute and solvent can be separated by ordinary filtration	
Examples	Sugar solution, soft drinks, vinegar, sea water, air, and metal alloys		Milk, mayonnaise, fog, ink, paint, gelatine, and body lotion		Sand, mud, chalk particles, kerosene, or milk of magnesia in water	

Next topic in this series...



Physical States of Matter



Thank You!

A colorful brushstroke graphic located below the 'Thank You!' text. It features horizontal strokes in shades of cyan, blue, purple, pink, red, and yellow, creating a vibrant, abstract background for the text.