

Class	IX	Subject	CHEMISTRY
PD	6	Chapter-2	IS MATTER AROUND US PURE
Recapitulation of the previous taught.	<ul style="list-style-type: none"> <li>❖ They came to know of the types of solution-True solution, Suspension and Colloid</li> <li>❖ Saturated and Unsaturated solution</li> <li>❖ Determination of Solubility and Concentration.</li> </ul>		
Sub-Concepts	<ul style="list-style-type: none"> <li>❖ Properties of Suspension</li> <li>❖ Properties of Colloids</li> <li>❖ Types of Colloids and its application</li> </ul>		
Teaching Aid To be used	Smart Class, PowerPoint presentation, <b>classroom objects, (advertisements), charts.</b>		
Learning Outcome	<ul style="list-style-type: none"> <li>• Student will be able to know about properties of Suspension.</li> <li>• Student will be able to know about properties Colloids.</li> <li>• Student will be able to know about the types of Colloids and its applications.</li> </ul>		
Sl. No	Step Wise (What to be done)		
1 Introduction	<p>For Achievers</p> <p>Teacher should initiate the discussion on following topics, which will revolve around the core topic of the chapter like,</p> <p>How can we separate solution based on certain properties?</p> <ul style="list-style-type: none"> <li>➤ Vision to acquire knowledge of the Suspension.</li> <li>➤ They would be given the concept of Colloids</li> <li>➤ Vision to acquire knowledge of types of Colloids.</li> </ul>	<p>For Average</p> <ul style="list-style-type: none"> <li>➤ They would made fami of the properties Suspension.</li> <li>➤ They would be made know of the Colloids</li> <li>➤ They would be given idea of the types Colloids.</li> </ul>	

## 2. Tyndall effects



"The **Tyndall effect** is the scattering of light as a light beam passes through a colloid. The individual suspension particles scatter and reflect light, making the beam visible. ... As with Rayleigh scattering, blue light is scattered more strongly than red light

## 3-Properties of Suspension and Colloids

COLLOID VERSUS SUSPENSION	
Colloid particles are comparatively small (1-200 nm)	Suspension particles are comparatively large (> 200 nm)
Particles pass through filter paper	Particles don't pass through filter paper
Particles cannot be seen by the naked eye but can be seen under a light microscope	Particles can be clearly seen by naked eye
Particles do not undergo sedimentation	Particles undergo sedimentation
Phase separation is either very slow or might not happen	A distinct phase separation can be seen
Examples include milk, shampoo, gemstones, and foam rubber	Examples include muddy water, soot in air, oil and water
Used in the paint industry, food industry and various other industrial application	Used in the production of medication and milk of magnesia
	Visit <a href="http://www.pofiaa.com">www.pofiaa.com</a>



4.Types of Colloids and its application.

<i>Dispersed Phase</i>	<i>Dispersing Medium</i>	<i>Type</i>	<i>Example</i>
Liquid	Gas	Aerosol	Fog, clouds, mist
Solid	Gas	Aerosol	Smoke, automobile exhaust
Gas	Liquid	Foam	Shaving cream
Liquid	Liquid	Emulsion	Milk, face cream
Solid	Liquid	Solution	Milk of magnesia, mud
Gas	Solid	Foam	Sponge, pumice
Liquid	Solid	Gel	Jelly, cheese, butter
Solid	Solid	Solid sol	Coloured gemstone, milky glass

5.Home Assignment

Exercise I Q12 to Q23

- 1) Name the type of colloid in the following. Mention the dispersed medium and dispersed phase in milk and gemstone
- 2) What are Tyndall effects? Write its two applications

