Name_____

Student Data Table

Solutions, Colloids, and Suspensions

Properties of Mixtures

Property	Solution	Colloid	Suspension
Particle Size	0.1–1 nm (atoms, ions, and small molecules)	1–200 nm (large protein molecules)	>200 nm (aggregates of large molecules)
Light Scattering	None	Tyndall effect	Tyndall effect
Settling Behavior	Stable, does not separate.	Stable, does not separate.	Particles separate on standing.
Filtration	Particles pass through filter.	Particles pass through filter.	Particles do not pass through filter.
Dialysis	Particles pass through membrane.	Particles do not pass through membrane.	Particles do not pass through membrane.

Data Table — Part A

Mixture	Observations
Copper sulfate in water	
Colloidal starch	
Starch mixed with room temperature water	

Data Table — Part B

Mixture	Filter Paper and Filtrate Observations	Observations After Adding Test Solutions
Copper sulfate in water		
Colloidal starch		
Starch mixed with room temp. water		

Data Table — Part C

Mixture	Observations
Starch mixed with boiling water	

Data Table — Part D

Mixture	Observations	
	Before adding hydrochloric acid	**After adding hydrochloric acid**
Sodium thiosulfate in water		

Post Demonstration Questions

1. Using the Properties of Mixture Table and data from Parts A, B, and C, what can you conclude about the nature of each mixture?

2. What type of mixture is created in Part D? Explain.