Organizer – Properties of Solids, Liquids and Gases

Gas	Liquid	Solid
1. Gases have no definite shape – they take the shape of their container. They have no definite volume – they may be compressed.	1. Liquids have no definite shape – they take the shape of their container. They have definite volume – they cannot be compressed	1. Solids have definite shape and definite volume <u>Crystalline solids</u> – a. Highly ordered arrangement of particles b. Definite melting point c. Ex: Table sugar, salts, metals <u>Amorphous solids</u> – a. Irregular arrangement of particles b. No definite melting point c. Ex: Plastics, glass
2. Particles are far apart and move randomly. Gases have 1/1000 the density of liquids or solids	2. Particles are close together and move randomly.	2. Particles are close together and may vibrate in place
3. Very weak forces of attraction	3. Strong forces of attraction	3. Very strong forces of attraction. The higher the melting point of a substance, the stronger the forces of attraction
4. Gases diffuse rapidly	4. Liquids diffuse slowly	4. Solids do not diffuse measurably
5. Very low viscosity	5. Viscosity ranges from low to high	5. Crystalline solids do not flow. Amorphous solids may flow very slowly (VERY high viscosity)