

10.3 - Solids

	particles of a solid are more closely packed than those of a liquid or gas.	intermolecular forces between particles in a solid are more effective.
	what is a crystalline solid?	crystalline solids consist of crystals where the particles are arranged in an orderly, geometric repeating pattern. Examples of noncrystalline solids are glass and plastics.
	What do you call noncrystalline solids?	Amorphous solids- one in which the particles are arranged randomly.
	solids have both definite shape and volume.	unlike liquids and gases: solids can maintain shape without a container.
	what happens to the kinetic molecular energy when melting point has occurred?	at the temperature at which a solid becomes a liquid, the kinetic energies of the particles within the solid overcome the attractive forces holding them together, causing them to break form the crystalline solid positions.
	what are supercooled liquids?	substances that retain certain liquid properties eve at temperatures at which they appear to be solid.
	how dense are solids compared to liquids and gases?	solids are slightly denser than liquids and much denser than gases. higher density= more closely packed particles.
	does diffusion occur in solids?	yes; millions of times slower than in liquids.
	how many types of crystals are there?	four; ionic, covalent, metallic, covalent molecular.
	what does the word amorphous in amorphous solid mean?	amorphous solid mean without shape. amorphous solids are used in important appliances.
	conduction in a gas is low but in a solid is high	conduction is when particles of a substance receives heat directly from the source.
	convection occurs mostly in fluids.	convection is when particles of a substance near heat source heat up and get away from the heat source. this leaves the cooler, more dense particles at the bottom.