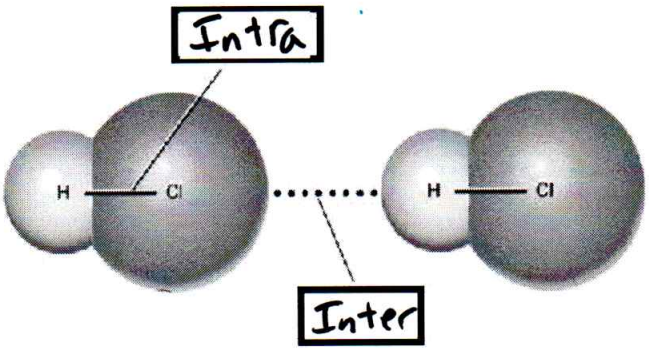
(#4-2a)

Why is a liquid a liquid?

48

1. When you melt an ionic substance what type of bond do you break? Ionic
2. When you melt a network covalent bond what type of bond do you break? Covalent
3. When you melt a molecular solid what type of bond do you break? IMF

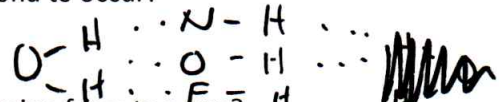


4. Label the type of force above (intermolecular/intramolecular)
5. What is the difference between an intermolecular force and an intramolecular force? inside molecules (covalent) Between Molecules
6. Student hypothesis: A substance is a solid at room temperature because molecules stick together. The reason they stick together is they really like each other. Justify or nullify?

Nullify: Never use human liKness to describe chemisty

7. What is the only reason two molecules would stick together? - large IMF.
8. What is needed for a hydrogen bond to occur?

See picture



9. What is needed for London dispersion force to occur?

- electrons, every substance has, But more LDF if - long chains + more e⁻

10. Indicate the type of force that is causing the substance to be a solid/liquid or gas? Order them from highest to lowest melting point.

What Breaks when melted

$MgCl_2$	H_2	$C_{(diamond)}$	H_2O	NaCl	C_5H_{12}
Ionic LDF	LDF	covalent LDF	HBond LDF	Ionic LDF	LDF