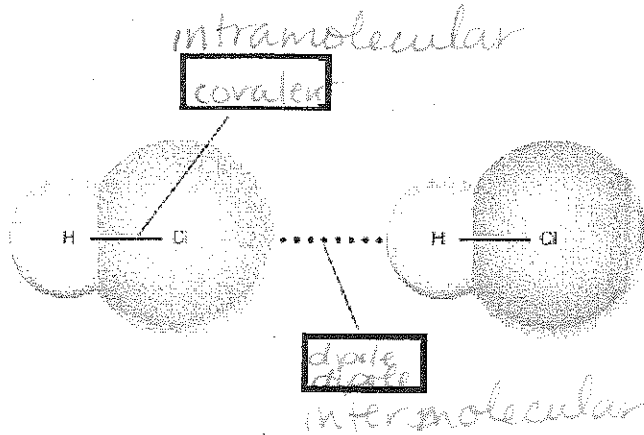


(#7-2a)

Why is a liquid a liquid?

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? *intermolecular bonds*



4. Label the type of force above (intermolecular/intramolecular)
5. What is the difference between an intermolecular force and an intramolecular force? *↳ between molecules* *↳ within a molecule*
6. Student hypothesis: A substance is a solid at room temperature because molecules stick together. They reason they stick together is they really like each other. Justify or nullify? *nullify: molecules stick together due to intermolecular bonds*
7. What is the only reason two molecules would stick together?

Temperature + Pressure

8. What is needed for a hydrogen bond to occur? *- polarity in molecules*
H bonds are between H + O of 2 different molecules
9. What is needed for London dispersion force to occur? *need nonpolar molecules*

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.

②
MgCl₂

ionic

⑥
H₂

London disp.

①

C (diamond)

covalent network

④

H₂O

H bonds

③

NaCl

ionic

⑤

C₅H₁₂

London Disp.