

Pre-AP Chemistry
Unit #5—Bonding

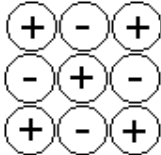
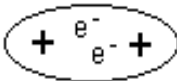

For each force:

- A. Write the name of the force.
- B. Define the force (Basis of Attraction).
- C. Draw a picture of the model.
- D. Give the example.

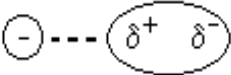
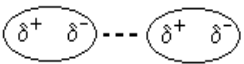
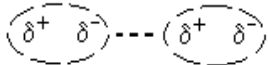
Please draw the picture of the model in colored pencil. Make the drawing neat and clear.

This is due at the end of the period on Friday, October 22, 2010.

Intramolecular Forces

Force	Model	Basis of Attraction	Example
Ionic		Opposite charges	NaCl
Covalent		Nuclei – shared e ⁻ pair	H - H
Metallic		Metal cations and delocalized electrons	Au

Intermolecular Bonding

Ion-dipole		Ion and polar molecule	Na ⁺ & H ₂ O
Dipole-dipole		Partial charges of polar molecules	HCl & HCl
Hydrogen bond	$\begin{array}{ccc} \delta^- & \delta^+ & \delta^- \\ -X-H & \cdots & :Y- \end{array}$	H bonded to N, O, or F, and another N, O, or F	H ₂ O & NH ₃
London dispersion		Induced dipoles of polarizable molecules	Xe