Interparticle Forces: The forces of attraction between neighboring particles

Ionic Forces:
- whole charges attracting
- ions attracted to ions of the opposite charge
- the higher the charges, the stronger the attraction

Dipole-Dipole Interactions:
Hydrogen Bonding:
- large partial charges attracting
- occurring between very polar molecules
  (containing H-F, H-O, or H-N bonds)
Other Dipole-Dipole Interactions:
- partial charges attracting
- occurring between polar molecules

London Dispersion Forces:
- extremely weak, temporary charges attracting
- primary attraction between non-polar molecules
- instantaneous and induced dipoles are caused by brief uneven distributions of electrons
- the more electrons a molecule has, the greater the LDFs

Examples:
BaSO₄, CaCO₃ …
NaCl, KNO₃ …
H₂O
alcohol, NH₃ …
formaldehyde, MEK…
oil, gasoline, benzene …
CO₂, methane, helium …

Properties:
Solids at room temperature
less volatile liquids
Liquids at room temperature
more volatile liquids
Gases at room temperature