

Worksheet: Intramolecular Forces, Intermolecular Forces **Key**

1. List the intramolecular forces from weakest to strongest?

weakest: nonpolar covalent

polar covalent

strongest: ionic

2. List the intermolecular forces from strongest to weakest and where they can be found?

strongest: ionic - ionic compounds

H-bonding - polar compounds w/ H bonded to N, O, F

dipole-dipole - polar compounds

weakest: dispersion - all compounds

3. Which is the strongest intermolecular force in the following compounds:

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|--------------------------|----------------------|
| a. NCl_3 | <u>dispersion</u> |
| b. NaF | <u>ionic</u> |
| c. SiI_4 | <u>dispersion</u> |
| d. Li_2O | <u>ionic</u> |
| e. H_2O | <u>H-bonding</u> |
| f. SCl_2 | <u>dipole-dipole</u> |