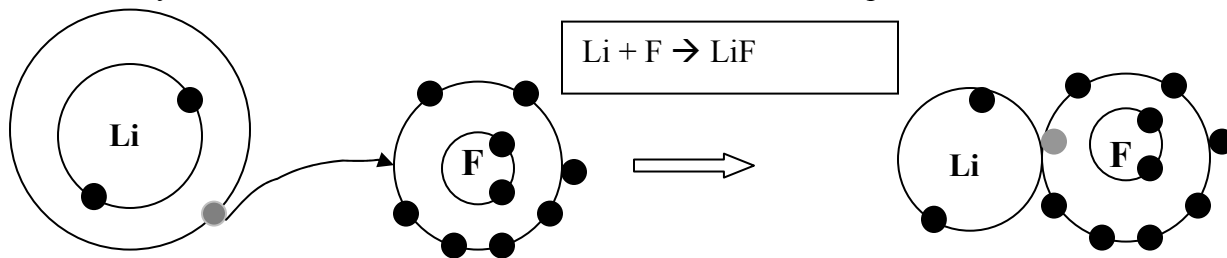


Ionic Bonding Worksheet

For each pair of elements below draw an atomic diagram showing electrons in different energy levels. Draw arrows to show where the outer electrons will go during a chemical reaction, then draw the resulting compound. Finally, fill in the table below each reaction. Refer to the sample shown.



| Atoms | Valence electrons | Electron transfer from/to each atom | Ions formed in the product |
|-------|-------------------|-------------------------------------|----------------------------|
| Li | | | |
| F | | | |

| Reactions | Atoms | Valence electrons | Electron transfer from/to each atom | Ions formed in the product |
|--|-------|-------------------|-------------------------------------|----------------------------|
| 1) $\text{Li} + \text{Cl} \Rightarrow \text{LiCl}$ | | | | |
| | | | | |
| 2) $\text{Ca} + \text{O} \Rightarrow \text{CaO}$ | | | | |
| | | | | |
| 3) $\text{Be} + \text{F} \Rightarrow \text{BeF}_2$ | | | | |
| | | | | |
| 4) $\text{Mg} + \text{S} \Rightarrow \text{MgS}$ | | | | |
| | | | | |
| 5) $\text{K} + \text{F} \Rightarrow \text{KF}$ | | | | |
| | | | | |

| Reactions | Atoms | Valence electrons | Electron transfer from/to each atom | Ions formed in the product |
|---|-------|-------------------|-------------------------------------|----------------------------|
| 6) $\text{Al} + \text{Cl} \Rightarrow \text{AlCl}_3$ | | | | |
| | | | | |
| 7) $\text{Na} + \text{O} \Rightarrow \text{Na}_2\text{O}$ | | | | |
| | | | | |
| 8) $\text{Li} + \text{N} =$ | | | | |
| | | | | |
| 9) $\text{Mg} + \text{F} =$ | | | | |
| | | | | |
| 10) $\text{Na} + \text{F} \Rightarrow$ | | | | |
| | | | | |
| 11) $\text{Al} + \text{O} \Rightarrow$ | | | | |
| | | | | |
| 12) $\text{Li} + \text{O} \Rightarrow$ | | | | |
| | | | | |
| 13) $\text{K} + \text{S} \Rightarrow$ | | | | |
| | | | | |
| 14) $\text{Mg} + \text{O} \Rightarrow$ | | | | |
| | | | | |