**CHECKPOINT: Chemical Bonding and Bonding Diagrams**

For each of the following pairs of elements, name the type of bonding that will occur between them:

1. Calcium and oxygen
2. Magnesium and Cobalt
3. Chlorine and carbon
4. Sulfur and lithium
5. Iron and fluorine
6. Phosphorus and bromine

Draw a diagram that shows how bonding occurs in each of the following compounds:

1. **MgCl2**
2. **Iron (III) sulfide**
3. **Bronze,** an alloy of **copper (II)** and **zinc**
4. **Pure aluminum metal**
5. **CF4**
6. **Phosphorus trichloride**
7. **Silicon dioxide**
8. **Sulfur trioxide**
9. **Boron trihydride**
10. **Ethylene, C2H4**
11. **Water**
12. **Ca(OH)**