

Name: _____ Date: _____

Non-Metals and Non-Metals: Covalent Bonding

Figure 1 shows how hydrogen and chlorine combine to form HCl. The atoms in a molecule of HCl share electrons, forming a covalent bond. Note how arrows are drawn from shared electrons to both nuclei. Examine Figure 1 and then complete questions 1 to 3.

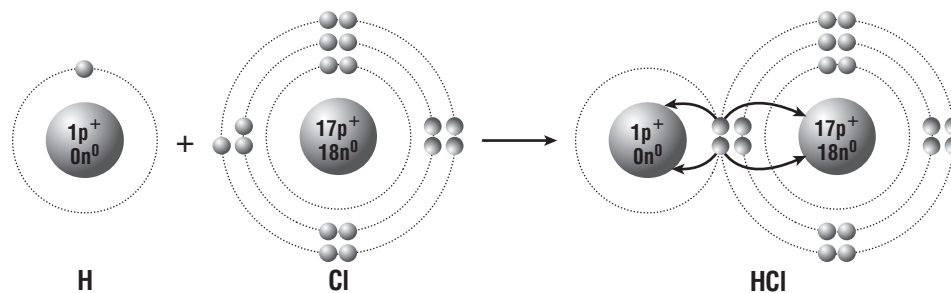


Figure 1 Hydrogen and chlorine combine to form HCl.

1. Draw Bohr–Rutherford diagrams to show how chlorine atoms combine to form chlorine gas.

2. Draw Bohr–Rutherford diagrams to show how hydrogen and oxygen combine to form H_2O .

- 3 Draw Bohr–Rutherford diagrams to show how hydrogen and nitrogen combine to form NH_3 .