Covalent Bonding Exam Style Question

1.

a. Draw a dot and cross diagram to show how hydrogen and chlorine would be bonded together.

b. What type of bond is this? _____

c. How do you know?

_____

_____

d. What state of matter would you expect HCl to be at when at room temperature? _____

e. How do you know this?

_____

_____

f. Would this simple molecule be able to conduct electricity? _____

g. How do you know this?

_____

_____

Self-Assessment

Colour in the stars to show how confident you are:

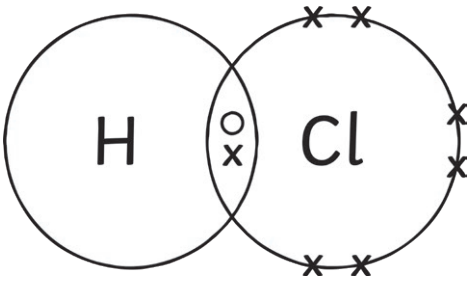
Before Marking: ☆ ☆ ☆ ☆ ☆

After Marking and Intervention: ☆ ☆ ☆ ☆ ☆

Answers

1.

a. Draw a dot and cross diagram to show how hydrogen and chlorine would be bonded together.



b. What type of bond is this? **covalent**

c. How do you know?

A pair of electrons are shared between two non-metal atoms.

d. What state of matter would you expect HCl to be at when at room temperature? **Liquid, or a gas.**

e. How do you know this?

Due to the weak intermolecular forces between the simple molecules of HCl, little energy is required to overcome these forces and change from a solid to a liquid and a liquid to a gas. They tend to have low melting/boiling points.

f. Would this simple molecule be able to conduct electricity? **no**

g. How do you know this?

The simple molecules themselves do not have a charge, unlike ions. There are no free electrons ions to carry the charge.

Teacher Feedback

Effort: 1 2 3 4 5

With guidance, you can draw the basic formation of a covalent bond as a dot and cross diagram, with some errors.	You can independently draw the basic formation of a covalent bond as a dot and cross diagram, with few errors.	You can independently draw the basic formation of a covalent bond as a dot and cross diagram, with no errors.
With guidance, you can identify and define a covalent bond, with few keywords.	You can independently identify and define a covalent bond, with few keywords.	You can independently identify and define a covalent bond, with several keywords.
With guidance, you can predict the general states of matter of simple molecules, but with no explanation.	You can independently predict the general states of matter of simple molecules, with some explanation.	You can independently predict the general states of matter of simple molecules, with a detailed explanation.
With guidance, you can recall if simple molecules can conduct electricity, but with no explanation.	You can independently recall if simple molecules can conduct electricity, with some explanation.	You can independently recall if simple molecules can conduct electricity, with a detailed explanation.

Next Steps: