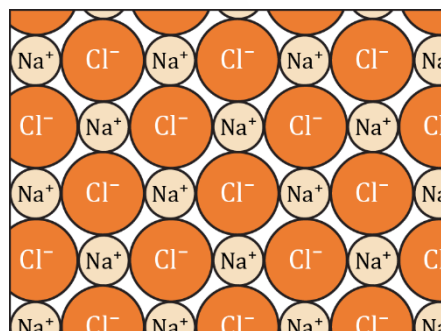


## Ionic bonding: true or false?

The statements below refer to the diagram of the structure of sodium chloride. The diagram shows part of a slice through the three-dimensional crystal structure.

Read each statement carefully and decide if it is correct or not. **Circle your answer.**



1. A positive ion will be attracted to any negative ion.	True / False
2. A sodium ion is only bonded to the chloride ion it donated its electron to.	True / False
3. A sodium ion can only form one ionic bond, because it only has one electron in its outer shell to donate.	True / False
4. A bond is formed between chloride ions and sodium ions because an electron has been transferred between them.	True / False
5. In the diagram, a chloride ion is attracted to one sodium ion by a bond and up to three other sodium ions just by forces.	True / False
6. In the diagram, each molecule of sodium chloride contains one sodium ion and one chloride ion.	True / False
7. An ionic bond is the attraction between a positive ion and a negative ion.	True / False
8. A positive ion can be bonded to any neighbouring negative ions, if it is close enough.	True / False
9. A negative ion can be attracted to any positive ion.	True / False
10. You cannot identify ionic bonds, unless you know which chloride ions accepted electrons from which sodium ions.	True / False
11. A chloride ion is only bonded to the sodium ion it accepted an electron from.	True / False
12. A chlorine atom can only form one ionic bond, because it can only accept one more electron into its outer shell.	True / False
13. There is a bond between the ions in each molecule, but no bonds between the molecules.	True / False
14. A negative ion can only be attracted to one positive ion.	True / False
15. A bond is formed between chloride ions and sodium ions because they have opposite charges.	True / False
16. In the diagram, a sodium ion is attracted to one chloride ion by a bond and is attracted to other chloride ions just by forces.	True / False
17. A positive ion can only be attracted to one negative ion.	True / False
18. An ionic bond is when one atom donates an electron to another atom, so that they both have full outer shells.	True / False
19. A negative ion can be bonded to any neighbouring positive ions, if it is close enough.	True / False
20. There are no molecules shown in the diagram.	True / False