Why do atoms form ions?

The statements refer to the formation of sodium and chlorine ions.
Read each statement carefully.
Tick one of the boxes to show whether it is true or false.

	Arrangement of electrons in shells
Na	2.8.1
Na^{+}	2.8
Na^{7-}	2.8.8
Cl	2.8.7
Cl-	2.8.8
Cl^{7+}	2.8

1. A sodium atom spontaneously loses an electron to get a full shell of electrons.
2. A Na^{7-} ion is more stable than a sodium atom because it has a full shell of electrons.
3. A Cl^{7+} ion is just as stable as a Cl^{-} ion because they both have a full shell of electrons.
4. Each proton in the nucleus of an atom attracts one specific electron.
5. Energy is required to remove an electron from an atom.
6. When an atom is ionised, it then requires even more energy to remove a second electron.
7. Once you've removed an electron from a sodium atom you can never put it back.
8. Once you have removed one electron from a sodium atom you can't remove another because that would mean it no longer had a full electron shell.
9. Solid sodium chloride contains pairs of sodium and chloride ions which are kept together by their opposite charges.
10. When sodium chloride dissolves, the solution contains molecules of sodium chloride.

Statement number	True	False
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Name ……

After listening to the ideas of other students I have modified my ideas: