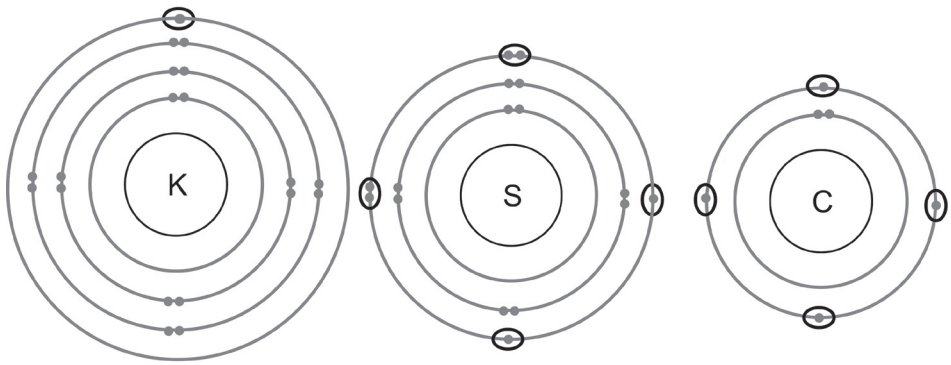
CHAPTER 5

1. Two or more atoms bonded together.
2. Nothing. If the student answers that the electrons on the left are all spread out and the ones on the right are drawn paired for easier counting, that is fine but misses the point. There is no difference between the two models when assessing the electrons in the outer shell.
3. True.
4. Groups 1/1A, 2/2A, 13/3A, 14/4A, 15/5A, 16/6A, 17/7A and 18/8A.
5. The transition metals often do not follow the rules of the Periodic Table, but the main group elements do. Each element within a main group element group (1–8) has the same number of electrons in the outer shell, for example, Therefore, especially when learning about chemistry and bonds, it is easier to learn when using the main group elements.
6. False
7. True
8. False
9. True
10. The answer can either be, "the ones in Group 3" or "boron (B), aluminum (Al), gallium (Ga), indium (In), Thallium (Tl) and nihonium (Nh)"
11. False.
12. Because the number of the group is also the same number of valance electrons.
13. 

14. A is Group 14/4A. B is Group 16/6A. C is Group 16/6A. D is Group 2/2A.
15. False.
16. $C_6H_{12}O_6$, Cr_2O_3, N_2, $C_{13}H_{18}Br_2N_2O$.
17. N_2, $C_6Cl_5NO_2$, $C_7H_5N_3O_6$. Note for right now, the order of the elements in the chemical formula isn't important as long as the number of each is correct. $C_7H_5N_3O_6$ is just as correct as $H_5O_6C_7N3$ or any other order as long as the numbers of each are correct.