

Name \_\_\_\_\_ Pd \_\_\_\_\_ Date \_\_\_\_\_

## Periodic Table & Electron Configuration Worksheet

Use the periodic table and the steps below to determine electron configuration of the elements below using noble gas notation.

Step #	Process	Example
1	Find the element on the periodic table.	bromine
2	Find the noble gas that comes before the element.	argon
3	Determine which period the element is in.	period 4
4	Write the electron configuration using noble gas notation. Start with the noble gas in brackets and then list the energy sublevels (main energy level and orbital block) that are filled up as you move to the right toward the element.  Main Energy Level: for the s-block and p-block, $n = \text{period \#}$ ; for the d-block, $n = \text{period \#} - 1$ ; and for the f-block, $n = \text{period \#} - 2$ .	$[\text{Ar}] 4s^2 3d^{10}$
5	When you get to the block that the element is in, count how far into the block the element is. This will be the number of electrons in the last sublevel.	bromine is the 5 <sup>th</sup> element in the p-block, $[\text{Ar}] 4s^2 3d^{10} 4p^5$

- |                |               |
|----------------|---------------|
| 1. Lithium     | 10. Titanium  |
| 2. Carbon      | 11. Chromium  |
| 3. Oxygen      | 12. Iron      |
| 4. Neon        | 13. Nickel    |
| 5. Magnesium   | 14. Zinc      |
| 6. Aluminum    | 15. Germanium |
| 7. Phosphorous | 16. Selenium  |
| 8. Chlorine    | 17. Krypton   |
| 9. Potassium   | 18. Strontium |

19. Zirconium

20. Palladium

21. Silver

22. Antimony

23. Iodine

24. Cesium

25. Lanthanum

26. Europium

27. Lutetium

28. Tungsten

29. Platinum

30. Mercury

31. Lead

32. Uranium

33. Plutonium

34. Francium

35. Actinium

36. Mandeleevium

37. Nobelium

38. Lawrencium

39. Bohrium

40. Copernicium

41. Ununtrium

42. Ununoctium