Chapter 11, 12 Study Guide: Introduction to Atoms and the Periodic Table

1. What term describes the smallest particle into which an element can be divided?_____
2. What did Dalton believe?_____
3. What particle did J. J. Thomson discover?_____
4. In Thomson's plum pudding model of the atom, what do the plums represent?_____
5. How would you describe the nucleus of an atom?_____
6. Where are electrons likely to be found?_____
7. What particle is positively charged?_____
8. What particle is negatively charged?_____
9. What particle is uncharged?_____
10. What term describes the mass of an atom?_____
11. What term describes the number of protons in the nucleus?_____
12. What term describes the weighted average of the masses of all the isotopes of that element?_____
13. What term describes the sum of protons and neutrons?_____
14. How do isotopes differ from one another?_____
15. An atom has 65 protons, 65 electrons, and 106 neutrons. What is the mass number?_____
16. An isotope of carbon, carbon-13 has 6 protons. How many protons does carbon-14 have?_____
17. An atom of oxygen with 8 protons, 8 electrons, and 8 neutrons would have a mass number of _____.
18. If Lithium-7 has 3 protons, how many protons does Lithium-8 have?_____
19. What did Mendeleev arrange the elements by?_____
20. When something is _____, it occurs or repeats at regular intervals.
21. All of the more than 30 elements discovered since 1914 follow the _____.
22. What is the horizontal row on the periodic table called?_____
23. What are the vertical columns of the periodic table called?_____
24. What are most of the elements in the periodic table classified as?_____
25. Most metals are _____ at room temperature.
26. What are the elements to the right of the zigzag line on the periodic table called?_____

27. Because they are so reactive,_____ metals are found only combined with other elements in nature.

28. The elements in groups 3-12 are known as _____ metals.

29. What are the group of elements that don't have individual names called?_____

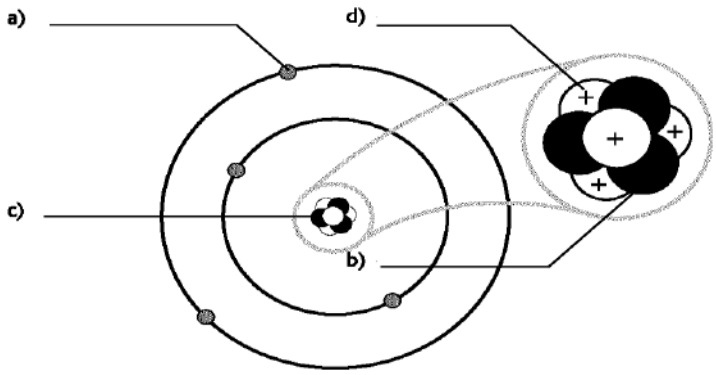
30. Diamond and soot are both natural forms of _____.

31. What element makes up 20% of the air we breathe?_____

32. What element is necessary for substances to burn?_____

33. When a halogen reacts with a metal, what is formed?_____

34. What is sodium chloride and what is it used for?_____

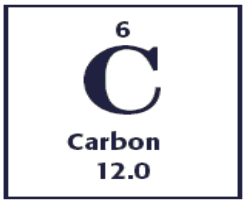


35. Which letter refers to the positively charged particle?_____

36. Which letter refers to the negatively charged particle?_____

37. Which letter refers to the particle with no charge?_____

38. Which letter refers to the dense center of the atom?_____



39. The number at the top indicates the_____.

40. The number at the bottom is the _____.

Study the list of elements to memorize too!