

Name: _____

Date: _____ Period: _____

6.1 – Organizing the Elements

1. How many elements had been identified by the year 1700?
2. What caused the rate of discovery to increase after 1700?
3. What did J. W. Dobereiner do to classify elements?
4. What was a problem with his method?
5. Which two people proposed very similar periodic tables to the one we use today?
6. Why did Mendeleev get more credit for the discovery?
7. How did Mendeleev organize his periodic table?

8. Why were there question marks, or blanks in his periodic table?

9. Does using atomic mass alone to group elements in the periodic table work? Why or why not?

10. What is a period? What is a group?

11. What are the three classes that all elements are organized into?

12. The largest class of atoms is _____.

13. What are characteristics of metals?

14. What are characteristics of nonmetals?

15. What are characteristics of metalloids?

16. Where can we find metals, nonmetals, and metalloids on the period table?

Metals –

Nonmetals –

Metalloids –

6.2 – Classifying the Elements

17. What information is found in each square on the periodic table on pages 162-163 and on the back cover of the book?

18. The subatomic particles that play the key role in determining the properties of an element are _____.

19. What is special about the elements in the last group, or the noble gases?

20. Why is that different from other elements?

6.3 – Periodic Trends

21. Why can't we directly measure the radius of an atom?

22. What is atomic radius?

31. How does ionization energy change as the periodic table moves from top to bottom?

32. What happens to the sizes of atoms as they become anions?

33. What happens to the sizes of atoms as they become cations?

34. What is electronegativity?

35. What happens to the electronegativity value as the periodic table moves from left to right?

36. What happens to the electronegativity value as the periodic table moves from top to bottom?

37. What does it mean if an element has a high electronegativity value?

38. What does it mean if an element has a low electronegativity value?