Basic Physical Science – Unit 7 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Atomic Structure Exam Review \_\_\_\_\_\_\_\_/\_\_\_45\_\_\_ Period \_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

1. Define element.
2. List 3 examples of elements.
3. Can elements be broken down into simpler substances? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Define atom.
5. List Dalton’s 4 Atomic Theory statements.
6. Define nucleus.
7. Define proton. List its mass and location.
8. Define neutron. List its mass and location.
9. Define electron. List its mass and location.
10. Bohr’s Model showed electrons were found in different energy levels around the nucleus. How many electrons do atoms want in their outer energy level? \_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. Electrons are difficult to locate exactly, so scientists say they are found in an area called the electron \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. Define atomic number.
13. The number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ determines the element.
14. In a neutral atom (not charged), how does the number of electrons relate to the atomic number?
15. Every \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has its own atomic number.
16. If an atom has an atomic number of 16, how many protons does it have? \_\_\_\_\_\_\_\_ Electrons? \_\_\_\_\_\_\_
17. Define mass number.
18. What units do scientists use when describing the mass of atoms?
19. How do you find the number of neutrons of an atom?
20. If the mass of sodium is 23, how many neutrons are there? \_\_\_\_\_\_\_\_\_\_\_
21. What is an isotope? Give an example.
22. What is an ion? Give an example.
23. What are valence electrons?
24. How do you determine the number of valence electrons?
25. Why do scientists care about the number of valence electrons?
26. Draw an electron dot diagram for the following elements: Calcium, Phosphorus, Neon
27. How are elements on the periodic table organized?
28. What is a group? What is a period?
29. What do we know about elements in the same group?
30. Define metal. Give an example.
31. Define nonmetal. Give an example.
32. Where are metals found on the periodic table? Nonmetals?
33. What are the halogens? Noble gases?