

Study Guide Matter Chapter 4

1. Where in the atom are protons and neutrons found **and** what charge do they both have?
2. Where in the atom are electrons found **and** what charge do they have?
3. What does the atomic number tell you about an atom?
4. What does the mass number tell you about an atom?
5. How many protons does an atom with the atomic number 6 and mass number of 12 have?
6. Does an atom have a charge if it has the same number of protons and electrons?
7. Out of a neutron or electron, which one has about the same mass as a proton?
8. What is an isotope?
9. What is the mass number of an atom with 35 protons, 35 electrons, and 36 neutrons?
10. What is an atom?
11. When does an atom become an ion?
12. Do isotopes have different atomic numbers or different mass numbers?
13. What is the electromagnetic force?
14. Which force holds the electrons around the nucleus?
15. Which force overcomes the electromagnetic force in the nucleus that allows protons to stay together?
16. Which force plays a role in radioactive decay?
17. An ion has 20 protons, 21 neutrons and 19 electrons. Is this ion positive or negative?
18. What is the name of an isotope that has 8 protons and 10 neutrons?
19. Draw a Bohr model of Aluminum
20. Without drawing the Bohr model, how many shells does calcium have and how many electrons are in the outer shell?