

PSC 1341
Quiz 4

Matching

1. Isotopes _____
2. Groups _____
3. Periods _____
4. hydrogen bonding _____
5. melting _____
6. Homogeneous Mixture _____
7. Heterogeneous Mixture _____
8. Temperature _____
9. Sublimation _____
10. Absolute zero _____
11. Einstein _____
12. De Broglie _____
13. Bohr _____
14. Group 7A _____

- A. a measure of the average kinetic energy of the molecules.
- B. Water's attractive forces
- C. The lowest temperature possible because molecular motion is essentially zero.
- D. phase change from solid to liquid
- E. phase change from solid to gas
- F. A scientist who said "particles, like electrons, can have wave-like properties"
- G. A scientist who said "Light, a wave, can have particle like properties"
- H. A mixture that is not all the same
- I. atoms with the same number of protons but different numbers of neutrons.
- J. Columns on the periodic table
- K. Rows on the periodic table
- L. A mixture that is all the same
- M. the halogens
- N. A scientist who postulated that electrons exist in orbits of specific energies.

Matching

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|-----|----|-------|-----------|
| 15. | Fe | _____ | A. silver |
| 16. | Au | _____ | B. iron |
| 17. | O | _____ | C. gold |
| 18. | Ag | _____ | D. carbon |
| 19. | C | _____ | E. oxygen |

20. The pressure of the earth's atmosphere at sea level is due to
- a) the gravitational attraction of the earth for the atmosphere.
 - b) the heating of the atmosphere by the sun.
 - c) The fact that most living things constantly breathe air.
 - d) evaporation of water from the sea's atmosphere.
21. How many protons are in the nucleus of a carbon-14 atom? _____
22. How many neutrons are in the nucleus of a carbon-14 atom? _____
23. How many neutrons are in the nucleus of a carbon-12 atom? _____
24. How many moles of gas are in a balloon with a volume of 2.00 liters at a temperature of 298 K and a pressure of 1.11 atm?
25. A piston is squished from 20.0 mL to 7.35 mL. If the starting pressure is 1.01 atm, what is the final pressure? Assume temperature is constant.
26. An atom has 20 protons, 22 neutrons and 18 electrons. Describe this atom using the format described in class.

