

Biology Test Review – Atoms & Molecules

1. Can you identify the 3 parts of an atom? – Their location in the atom, their charge
2. Can you explain what particles make up the atomic mass of an atom?
3. Can you explain what an isotope of atom is?
4. Can you explain what an ion of an atom is?
5. What is the difference between an element and a compound?
6. What does it mean that water is a polar molecule?
7. What is a hydrogen bond?
8. What is an ionic bond?
9. What is a covalent bond?
10. What is the difference between an acid and a base?
11. Given a pH measurement, can identify if a solution is an acid, base or neutral?
12. What is a buffer?
13. What happens when you combine an acid and a base of similar strengths?
14. What is the difference between cohesion of water and adhesion of water?
15. Can you draw the atomic structure of a atom (from the 1st three rows of the periodic table)?
16. Can you identify if an atom will form an ionic or covalent bond from looking at where it is on the periodic table?
17. Can you draw the electron dot diagram of the following elements & compounds?
O₂ N NH₃ Na H₂O
18. Can you draw the structural formulas of the following compounds?
O₂ NH₃ H₂O CH₄
19. Given the elemental notation of an atom, could you identify the following?
of protons, # of neutrons, charge (if it is neutral or an ion)
20. Can you write the elemental notation of an atom is you are given the following information? # of protons, # of neutrons, #of electrons