Name: Date: Block:

**Directions:** *These questions are the same as the review questions on Kahoot. Please read the questions carefully and choose the correct letter that answers the question.*

1. What are the 3 subatomic particles that make up an atom?
2. Protons, neutrons, and isotopes
3. Neutrons, isotopes, and electrons
4. Positives, negatives, and electrons
5. Protons, neutrons, and electrons
6. The nucleus of an atom is made up of what subatomic particles?
7. Protons & electrons
8. Protons & neutrons
9. Electrons & neutrons
10. Protons, neutrons & electrons
11. What does the atomic number tell us about an element?
12. The number of protons and neutrons that element has.
13. The number of protons and electrons that element has.
14. The number of neutrons and electrons that element has
15. The number of protons only.
16. What does the number 15.999 tell us about the oxygen atom?
17. Atomic mass
18. Atomic number
19. The number of neutrons in the nucleus
20. The number of protons in the nucleus
21. What subatomic particles make up the atomic mass?
22. Protons + electrons
23. Neutrons + electrons
24. Protons + neutrons
25. The number of neutrons only
26. The space surrounding the nucleus of an atom contains...?
	1. protons
	2. croutons
	3. neutrons
	4. electrons
27. What type of ion forms when an atom loses an electron?
	1. positive
	2. neutral
	3. negative
	4. partial positive and negative
28. What is an ion called when it gains an electron?
	1. onions
	2. cation
	3. potato
	4. anion
29. A covalent bond is formed as a result of…?
	1. Transferring electrons
	2. Sharing electrons
	3. Transferring protons
	4. Sharing protons
30. Ionic bonds are formed when…?
	1. Protons are transferred with another atom
	2. Electrons are shared with another atom
	3. Protons are shared with another atom
	4. Electrons are transferred between atoms.
31. What type of bond is formed between NaCl?
	1. Covalent bond
	2. Hydrogen bond
	3. Ionic bond
	4. The bond of LOVE
32. The bond formed between two water molecules is called what type of bond?
	1. hydrogen
	2. covalent
	3. ionic
	4. polar covalent bonds
33. Why are water molecules polar/bent?
34. The oxygen & the hydrogen are slightly negative
35. The oxygen & hydrogen sides are slightly positive
36. Oxygen is slightly negative & hydrogen is slightly positive
37. Oxygen is slightly positive & hydrogen is slightly negative
38. Salt can dissolve in water. What property of water explains why salt dissolves so easily?
	1. Water has strong cohesion
	2. Water is a polar molecules
	3. Water has strong surface tension
	4. Water has high specific heat
39. What determines the polarity between atoms?
	1. The relative attraction of electrons to each atom
	2. The relative attraction of protons to each atom.
	3. The number of protons in the bond
	4. The number of electrons in the bond
40. Blood in our bodies is slightly more basic than water. Which represents the pH of blood?
	1. pH 2
	2. pH 6.5
	3. pH 7
	4. pH 7.3

1. Which solution has the greatest amount of hydroxide ions (-OH)?
	1. Laundry detergent= pH 14
	2. Tap water= pH 7.5
	3. Lemon juice = pH 3.5
	4. Gastric juice = pH 2.0
2. What does the pH scale measure?
	1. The concentration of acids
	2. The concentration of H+ ions
	3. The concentration of bases
	4. The concentration of answering this question.
3. HCl, HNO3, H2CO3 all share what common atom? [HINT: these are all acids]
	1. carbon
	2. oxygen
	3. hydrogen
	4. nitrogen
4. How is an isotope defined?
	1. Different number of protons in the nucleus
	2. Different number of neutrons in the nucleus
	3. By the number of electrons lost or gained
	4. By the number of protons lost or gained.
5. HCl gets dissolved in a non-buffered solution of water. What is most likely to happen?
	1. The concentration of OH- ions will increase
	2. The concentration of H+ ions will increase
	3. The pH will not increase
	4. The pH will increase
6. The study of organic compounds include what key element?
	1. chlorine
	2. nitrogen
	3. oxygen
	4. carbon
7. a monosaccharide is a...?
	1. protein
	2. carbohydrate
	3. nucleic Acids
	4. lipid
8. All of the following are biomolecules EXCEPT?
	1. Carbohydrates
	2. Nucleic Acids
	3. Enzymes
	4. Lipids
9. This is a building block of carbohydrates, what is this structure called?
	1. sucrose
	2. fructose
	3. glucose
	4. maltose
10. The building blocks (monomer) of proteins is called?
	1. Amino acids
	2. nucleotides
	3. glucose
	4. carbohydrates
11. The basic building blocks (monomer) of Nucleic Acids are called?
	1. nucleotides
	2. amino acids
	3. monosacharides
	4. glycerol
12. What are the building blocks of macromolecules?
13. Enzymes
14. Polymerization
15. Glucose
16. Monomers
17. What is the purpose of a buffer in regards to pH?
	1. Buffers cause the pH to be higher or lower
	2. Buffers prevent sudden sharp changes in pH
	3. Buffers are bases
	4. Buffers are acids
18. Why is it important that ice can float?
	1. To insulate/protect the aquatic life under water
	2. To stop surface tension
	3. To dissolve particles in the air
	4. To keep sea levels from rising
19. Which of these structural formulas represent an organic compound?
	1. HCl
	2. KOH
	3. C6H12O6
	4. H2O
20. Amino acids, the building blocks (monomer) of proteins contain what atom other macromolecules do not?
	1. Nitrogen (-NH2)
	2. Carbon
	3. Phosphorus
	4. Carboxyl group (-COOH)
21. Which macromolecule does this monomer (fatty acid) belong to?
	1. Proteins
	2. Nucleic Acids
	3. Carbohydrates
	4. lipids
22. What macromolecule does this monomer (nucleotides) belong to?
	1. Carbohydrates
	2. Nucleic Acids
	3. Lipids
	4. Proteins
23. This amino acid structure is the monomer of what macromolecule?
	1. Nucleic acids
	2. Carbohydrates
	3. Proteins
	4. Lipids
24. Which macromolecule is best for energy storage?
	1. Carbohydrates
	2. Lipids
	3. Nucleic Acids
	4. Proteins
25. Enzymes are important to chemical reactions. How do enzymes speed up chemical reactions?
	1. By denaturing proteins
	2. By increasing activation energy
	3. By dehydration synthesis
	4. By decreasing activation energy
26. You are fruit that contained fructose. What would the enzyme be that would break this down?
	1. Fructose
	2. Sucrose
	3. Fructose
	4. Lactase
27. Enzymes are responsible for breaking substrates apart or putting substrates together. Can an enzyme bind to any substrate?
	1. No, but any enzyme can fit into an active site
	2. Yes because enzymes lower activation energy
	3. No they are very specific-like lock and key
	4. Yes, because I don’t know what enzymes do.
28. What are enzymes made of?
	1. Carbohydrates
	2. Proteins
	3. Lipids
	4. IDK, I’m over it.
29. What are the two factors that affect enzymes and chemical reactions?
	1. Temperature & bonds
	2. pH & substrates
	3. temperature only
	4. pH & temperature
30. Bonus: What do you call an acid with an attitude?
	1. Amino Acid-Get it?
	2. Hydrolysis
	3. Peptide bonds
	4. Dehydration synthesis

ANSWERS:

1. D
2. B
3. B
4. A
5. C
6. D
7. A
8. D
9. B
10. D
11. C
12. A
13. C
14. B
15. A
16. D
17. A
18. B
19. C
20. B
21. B
22. D
23. B
24. C
25. C
26. A
27. A
28. D
29. B
30. A
31. C
32. A
33. D
34. B
35. C
36. B
37. D
38. C
39. C
40. B
41. D
42. A