



Question

Answer

88.	What is the maximum number of electrons that an atom can have in its outermost energy level?	8
89.	What is the maximum number of electrons that can be found in the first energy level of an atom?	2
90.	The temperature at which a solid becomes a liquid is its _____ point.	melting
91.	The process by which gas changes into a liquid is called _____.	condensation
92.	A mixture in which substances are evenly mixed is called a _____.	solution(or homogenous mixture)
93.	The three types of electrolytes are acids, bases, and _____.	salts
94.	A family of elements in the periodic table is also called a _____.	group
95.	The lightest element is _____.	hydrogen
96.	Name the molecular compound containing two nitrogen atoms and three oxygen atoms.	dinitrogen trioxide

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Your **Chemistry Clever Catch®** provides an excellent way to learn basic Chemistry concepts and introduce the Periodic Table of the Elements. This ball contains 96 questions to get students started in this exciting topic. Clever Catch® can be used at school in organized classroom activities. It can also be used on the playground or at home. Grades 6-8.

CLEVER CATCH® AT HOME OR ON THE PLAYGROUND

Basic play for Clever Catch® is simple. Two or more players toss the ball to each other, answering the problem underneath or closest to their left thumb. Each problem is numbered and enclosed in its own space, assuring the child will know which problem to answer. Answers are provided in this insert for independent play by students.

PLAYOFFS:

Pairs of children toss the ball back and forth for one minute answering problems. A scorekeeper tallies which team has the most correct answers in the time limit.

CLEVER CATCH® IN THE CLASSROOM

BEAT THE CLOCK:

The entire class plays cooperatively as one team, trying to better its own time and number of correct answers in each game.

DIRECTIONS:

- 1 Choose a timekeeper. You also will need a monitor - teacher or student - to keep track of correct answers.
- 2 Divide the class into two lines of equal length, students facing each other.
- 3 At the timekeeper's signal, toss Clever Catch® to the first student. As quickly as possible, this student reads and answers the problem underneath his/her left thumb.
- 4 This student then tosses Clever Catch® to the student directly across from him/her in the second line. This student reads and answers the problem under his/her left thumb.
- 5 Play continues until all students in both lines have had a turn. When the last student has answered, the time and correct number of answers are recorded.

Question

Answer

1. Organic chemistry is the study of chemicals containing which element?	B. carbon
2. Mixtures containing particles that are not evenly distributed are called _____ mixtures	C. heterogeneous
3. The vertical columns of the periodic table are called _____.	A. families
4. In the periodic table, periods are arranged _____.	A. horizontally
5. The unreactive elements of Group 18 in the periodic table are called _____.	C. noble gases
6. "Matter is neither created nor destroyed during ordinary chemical reactions." This is the law of _____.	B. conservation of mass
7. Modern atomic theory is based on the atomic theory developed by an English school teacher named John _____.	C. Dalton
8. The smallest of the three basic particles in an atom is the _____.	B. electron
9. Which of the three basic particles in an atom lacks an electrical charge?	B. neutron
10. The atom number of an element is the number of _____ in the nucleus of each atom of that compound.	C. protons
11. Isotopes are atoms of the same element that have different _____.	A. masses
12. Elements tend to gain, lose or share electrons to become like the _____.	A. noble gases
13. When no more salt can be dissolved into a container of water, the salt-water solution is said to be:	B. saturated
14. The first workable periodic table of the elements was developed in 1869 by _____.	C. Mendeleev
15. The elements of Group 1 of the periodic table are known as _____.	B. alkali metals
16. Flourine, chlorine, bromine, iodine, and astatine are known as the _____.	A. halogens
17. The electrons on an atom that are available to be lost, gained or shared are called _____ electrons.	C. valence
18. You can speed up a chemical reaction by using a recyclable substance called a _____.	C. catalyst
19. CH ₄ is an example of a _____ formula.	A. molecular
20. A buffered solution resists changes in _____.	C. pH
21. An ion that consists of several covalently bonded atoms is known as a _____ bond.	A. polyatomic
22. Mg ²⁺ and Br ⁻ combine to form:	C. MgBr ₂
23. The acid in car batteries is:	B. Sulfuric Acid
24. Oxyacids always contain oxygen and _____.	B. hydrogen
25. The symbol for copper is _____.	B. Cu
26. For every one H ₂ and O ₂ that combines to form H ₂ O to form H ₂ O, the balanced chemical equation indicates that _____ H ₂ O are formed.	C. two
27. Decomposition reactions are the opposite of _____ reactions.	A. synthesis
28. The most reactive metals are known as _____ metals.	A. alkali
29. The most reactive nonmetals are known as _____.	B. halogens
30. The attraction of a liquid's surface to a solid's surface is called:	C. capillary action
31. When particles escape as a gas from the surface of a nonboiling liquid, it is called:	B. evaporation
32. The change in state from a solid directly to a gas is known as _____.	A. sublimation
33. A substance dissolved in a solution is called the _____.	A. solute
34. A solution that tastes sour and reacts with metals to form hydrogen gas is _____.	A. acidic
35. A solution that tastes bitter and feels slippery is _____.	A. basic
36. An alkaline solution is _____.	B. basic
37. Which of the following is an indication that a chemical reaction has occurred?	D. All of the above
38. The pH measures a solutions' _____.	A. acidity
39. True or False: A chemical compound always contains at least two different elements.	TRUE
40. True or False: The chemical formula of water is variable and depends on whether it is solid, liquid, or gas.	FALSE
41. True or False: Under the same condition, a given number of particles of any gas, regardless of mass, will occupy the same volume.	TRUE
42. True or False: Solubility varies with temperature.	TRUE

43. True or False: The rate at which a solid dissolves in water depends on its solubility.	FALSE
44. Which element has the symbol Na?	Sodium
45. What is the symbol for Calcium?	Ca
46. Sn is the symbol for which element?	Tin
47. Pb is the symbol for which element?	Lead
48. Name the element that has the symbol Fe.	Iron
49. When ionic substances dissolve in water, they break into _____.	ions
50. Hydrogen gas combines with oxygen gas to produce _____.	water
51. When two or more substances are blended together the result is called a _____.	mixture
52. The study of the chemistry of living things is called _____.	biochemistry
53. Any substance that has a definite composition is called a _____.	chemical
54. A chemical compound is defined as two or more chemically combined _____.	elements
55. The substances that react in a chemical change are called the _____.	reactants
56. The substances that are formed in a chemical change are called the _____.	products
57. The two types of pure substances are elements and _____.	compounds
58. Nonmetals are poor _____.	conductors
59. Name the two main particles that make up the nucleus of an atom.	protons and neutrons
60. A solution usually consists of a solute that is dissolved into a _____.	solvent
61. The atomic number of carbon (C) is 6. How many neutrons are in one atom of C-14?	8
62. An element that has characteristics of both metals and nonmetals is called a _____.	metalloid
63. The smallest particles of an element that retain the properties of that element are known as _____.	atoms
64. What is the atomic number of C?	6
65. The mass number of an atom is equal to the total number of protons and _____ in the nucleus.	neutrons
66. Substances that dissolve in water to form a solution that conducts electricity are called _____.	electrolytes
67. When industrial gases combined with water in the air to form acids the results are called _____.	acid rain
68. Name the two elements found in hydrocarbons.	hydrogen and carbon
69. The _____ Table is an arrangement of the elements into groups with similar properties.	Periodic
70. What is the mass number of C?	14
71. Single atoms or groups of bonded atoms with a charge are called _____.	ions
72. An ion can simply be described as a particle that has a _____.	charge
73. Positive ions are called _____.	cations
74. Negative ions are called _____.	anions
75. A force that holds atoms together is called a chemical _____.	bond
76. Electrical attraction between positively and negatively charged particles is called _____.	bonding
77. How many atoms are there in a diatomic molecule	2
78. According to the octet rule, atoms react so as to have how many outer electrons?	8
79. How many atoms does it take to form a monatomic ion?	1
80. The negative ion formed from a Flourine atom is called _____.	Flouride
81. Name the compound formed when sodium and oxygen combine.	Sodium oxide
82. An ionic compound that is neither an acid nor a base must be a _____.	Salt
83. Since sodium is found in group 1 of the Periodic Table, the charge of a sodium must be _____.	+1
84. Chlorine is found in group 17 of the Periodic Table. The charge on a chloride ion is therefore _____.	-1
85. Potassium has the symbol:	C. K
86. Hg stands for _____.	C. Mercury
87. What substance, found in the air, is needed in order for things to burn?	Oxygen