

8th Grade Science Questions

61-100

On index cards by 3/30 Test on 4/3

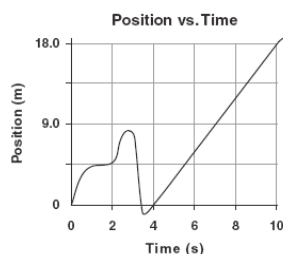
61. Which of these is the best definition of average speed

- a. the fastest speed and the slowest speed divided by 2
- b. the total distance traveled divided by the total time
- c. the mass multiplied by the distance
- d. the speed and direction of an object divided by a given interval of time

62. In the equation $v=d/t$, what does the t stand for?

63.

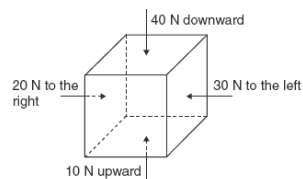
7 The graph below shows how the position of an object changes over time.



What is the speed of the object during the time interval from 4 seconds to 10 seconds?

64.

10 Four forces are acting on a box, as shown below.



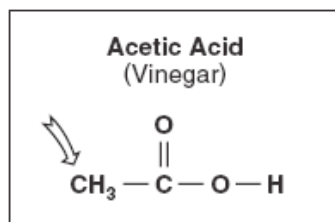
This box will increase in speed

- A downward and to the left.
- B downward and to the right.
- C upward and to the left.
- D upward and to the right.

65. Which class of elements best conducts electricity?

66. Which subatomic particle occupies the cloudlike space that surrounds the atom's core?

67.



What is the name of the indicated atom in the acetic acid molecule shown above?

68.

When magnesium (Mg) metal is burned in the presence of oxygen (O₂), magnesium oxide (MgO) is produced. The properties of magnesium oxide are different than the individual properties of magnesium and oxygen because magnesium oxide is

- A a solution.
- B a mixture.
- C a compound.
- D an element.

<p>69. Which Elements make up NH_3?</p>	<p>70. In regards to heat and energy, what occurs in an exothermic reaction?</p>
<p>71. Which of the following indicates an acidic solution?</p> <p>a. pH is 7 b. pH is less than 7 c. pH is greater than 7 d. pH is less than 0</p>	<p>72. In which direction do you need to move on the periodic table to find elements with similar properties?</p>
<p>73. Which of the following is a measure of a force?</p> <p>a. 2 g/cm b. 2 m/s east c. 2 Newton's downward d. 2 cm/2ml</p>	<p>74. Suppose the average speed of a model car is 15 kilometers per hour. Which of statement about the car must be true?</p> <p>a. The car can travel at 30 kilometers per hour b. The car can travel a total distance of 15 kilometers in 1 hour c. During a 1-hour trip, the speed of the car is always 15 kilometers per hour. d. For a 15-kilometer trip, the speed of the car can never exceed 15 kilometers per hour</p>
<p>75. A neutral atom of copper has 29 protons and 31 neutrons. How many electrons does it have?</p>	<p>76. Water is a compound because it is?</p>
<p>77. A drop of solution turns blue litmus paper red. The solution</p>	<p>78. The majority of the mass in the atom is found where?</p>
<p>79. A science student measures the pH of a solution using a pH meter. The pH of the solution is 7. The solution is</p>	<p>80. Which color of a star indicates the hottest surface temperature?</p>

<p>81. A motorist going 35 mph instantaneously turns a corner and continues at 35 mph in the new direction. Which of these did the motorist change?</p> <p>A. rate B. speed C. velocity D. Energy</p>	<p>82. A book is placed at the top of a 3 meter ramp but does not slide down the ramp. Why?</p>																									
<p>83. Which of the following is not a physical change?</p> <p>a. melting b. boiling c. freezing d. burning</p>	<p>84. The majority of elements on the periodic table are</p> <p>a. noble gases b. nonmetallic solids c. metallic solids d. nonmetallic liquids</p>																									
<p>85. If a catalyst is added to a substance and the temperature goes up, what kind of reaction is shown?</p>	<p>86. On the coordinate system starting at (0,0), what is the final position if the x-value increases by 5 and the y-value increases by 6; then the x-value decreases by 2 and the y-value increases by 3; and finally, the x value increases by 7 and the y-value decreases by 2?</p>																									
<p>87. If an object slides very easily across a table, the force applied is most likely</p> <p>a. equal to the force of friction b. greater than the force of friction c. less than the force of friction d. equal to zero</p>	<p>88. Which of the particles is the smallest?</p> <p>a. proton b. electron c. atom d. neutron</p>																									
<p>89. An object is in motion in a straight line, and a force is applied perpendicular to the direction of motion. What will this force most likely do?</p> <p>a. speed up the object b. slow down the object c. cause no change in the motion of the object d. change the direction of the object but not the speed</p>	<p>90. A sample of a substance has no specific shape and takes the shape of its container. Which of the following best tells what this sample could be?</p> <p>a. a gas b. a solid c. a gas or a liquid d. a liquid</p>																									
<p>91. The following table shows properties of four different sample materials. One of these materials is cork, a type of wood that floats in water.</p> <table border="1" data-bbox="272 1562 716 1745"> <thead> <tr> <th>Sample #</th> <th>Mass (g)</th> <th>Volume (mL)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>89</td> <td>10</td> </tr> <tr> <td>2</td> <td>26</td> <td>10</td> </tr> <tr> <td>3</td> <td>24</td> <td>100</td> </tr> <tr> <td>4</td> <td>160</td> <td>100</td> </tr> </tbody> </table> <p>Given that the density of water is 1 g/mL, which of the samples is most likely cork? A. 1 B. 2 C. 3 D. 4</p>	Sample #	Mass (g)	Volume (mL)	1	89	10	2	26	10	3	24	100	4	160	100	<p>92. The densities of four different woods are shown below:</p> <table border="1" data-bbox="854 1518 1490 1671"> <thead> <tr> <th>Type of Wood</th> <th>Density (g/cm³)</th> </tr> </thead> <tbody> <tr> <td>African Teakwood</td> <td>0.98</td> </tr> <tr> <td>Balsa</td> <td>0.14</td> </tr> <tr> <td>Cedar</td> <td>0.55</td> </tr> <tr> <td>Ironwood</td> <td>1.23</td> </tr> </tbody> </table> <p>Which wood will sink when placed in a fluid with a density of 1.14 g/mL?</p> <p>A. African Teakwood B. Balsa C. Cedar D. Ironwood</p>	Type of Wood	Density (g/cm ³)	African Teakwood	0.98	Balsa	0.14	Cedar	0.55	Ironwood	1.23
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<p>92. Which of the following is found farthest from the center of the atom?</p> <p>A. Nucleus B. Proton C. Neutron D. Electron</p>	<p>93. When magnesium (Mg) is burned in the presence of oxygen (O₂), magnesium oxide (MgO) is produced. The properties of magnesium oxide are different than the individual properties of magnesium and oxygen because magnesium oxide is</p> <p>A. a solution B. a mixture C. a compound D. an element</p>
<p>94. Which of the following BEST describes an atom?</p> <p>A. Protons and electrons grouped together in a random pattern B. Protons and electrons grouped together in an alternating pattern C. A core of protons and neutrons surrounded by electrons D. A core of electrons and neutrons surrounded by protons</p>	<p>95. Looking at a diagram of the periodic table of elements, in which region of the table would nonmetals be found?</p> <p>A. To the right of the zigzag line B. At the bottom of the table C. Along the zigzag line D. To the left of the zigzag line</p>
<p>96. Calcium has four stable isotopes: Ca-40, Ca-42, Ca-43 and Ca-44. What characteristic is different in each isotope?</p> <p>A. The position in the periodic table of elements B. The net charge of the nucleus C. The mass of the protons in the nucleus D. The number of neutrons in the nucleus</p>	<p>97. Which class of elements BEST conducts electricity?</p> <p>A. Metals B. Nonmetals C. Semimetals D. Noble (inert) gases</p>
<p>98. In a comparison of metals to nonmetals, metals tend to have</p> <p>A. Lower melting points and greater conductivity than nonmetals B. Lower conductivity and lower density than nonmetals C. Higher density and lower melting points than nonmetals D. Greater conductivity and higher melting points than nonmetals</p>	<p>99. A student divides several cubes into two groups, based on whether or not each cube can float in water. What property is the student using to classify the cubes?</p> <p>A. Weight B. Density C. Conductivity D. Mass</p>
<p>100. As a sample of water turns to ice,</p> <p>A. New molecules are formed. B. The mass of the sample is increased C. The arrangement of the molecules changes. D. Energy is absorbed by the molecules.</p>	

61	b. the total distance traveled divided by the total time
62	T stands for time
63	$18 \text{ m} / 6 \text{ sec} = 3 \text{ m/sec}$
64	a. downward and to the left
65	metals
66	electrons
67	Carbon
68	C. a compound
69	Nitrogen and Hydrogen
70	Heat is released
71	pH is less than 7
72	down
73	c. 2 Newton's downward
74	b. The car can travel a total distance of 15 kilometers in 1 hour
75	29 electrons
76	Made up of two elements chemically bonded
77	An acid
78	In the nucleus
79	neutral
80	Blue
81	C. velocity, because the directions changed
82	Friction
83	burning
84	Metallic solids
85	endothermic
86	(10,7)
87	b. greater than the force of friction
88	electron
89	d. change the direction of the object but not the speed
90	c. a gas or a liquid
91	c.
92	d. ironwood d. electron
93	c. a compound
94	c. A core of protons and neutrons surrounded by electrons
95	a. to the right of the zigzag line
96	d. the number of neutrons in the nucleus
97	a. metals
98	d. Greater Conductivity and higher melting points than nonmetals
99	b. density
100	c. the arrangement of molecules changes