

8th Grade Science Questions

On index cards by 3/26 Test on 3/28

<p>1. Which action will result in a product with new chemical properties; melting ice, folding paper, freezing juice or burning trash?</p>	<p>2. Is brass an element, compound or mixture?</p>
<p>3. Salt Water is a homogeneous mixture. The best way to separate the salt from the water is to _____ it.</p>	<p>4. All living things on Earth contain which element?</p>
<p>5. A student added a small ball to a graduated cylinder containing 10 milliliters of water. The water level went up to 16.8 mL. What is the volume of the ball?</p>	<p>6. The most common state of matter in the universe is which of the following?</p>
<p>7. Under certain conditions, an atom may gain or lose an electron. This atom is now (a) an</p>	<p>8. The subatomic particles that carry a negative charge in the atom are</p>
<p>9. How do you find the number of neutrons in an atom?</p>	<p>10. Isotopes of the same element are different because</p>

<p>11. When a metal is heated in a flame, the flame has a distinctive color. This information was eventually extended to the study of stars because,</p>	<p>12. Electrical fires cannot be safely put out by dousing them with water. However, fire extinguishers that spray solid carbon dioxide on the fire work very effectively. This method works because carbon dioxide</p>
<p>13. In order to advance to the level of a theory, a hypothesis should be</p>	<p>14. Which elements have the same Lewis dot (valence) structure as silicon?</p>
<p>15. $C_3H_8 + O_2 \longrightarrow CO_2 + H_2O$</p> <p>This chemical equation represents the combustion of propane. When correctly balanced, the coefficient for water is</p>	<p>16. Make a true statement about exothermic reactions and energy? $A + B = C + D + \text{energy}$</p>
<p>17. The pH of most soaps fall within what range on the pH scale?</p>	<p>18. Some of the molecules found in the human body are NH_2CH_2COOH (glycine), $C_6H_{12}O_6$ (glucose) and $CH_3(CH_2)_{16}COOH$ (stearic acid). The bonds they form are</p>
<p>19. A solution with the HIGH acidity has a pH of</p>	<p>20. In a compost pile, organisms---including microorganisms, insects, and worms---decompose material from dead plants, returning nutrients to the soil. In a healthy compost pile, the compost is often more than 50 degrees warmer than the ground around the pile. What is the main reason for this?</p>
<p>21. The number of protons in the nucleus of an atom is equal to the _____ on the periodic table.</p>	<p>22. When the baking soda and vinegar are mixed, new compounds are formed. When these reactants combine, the resulting compound _____.</p>
<p>23. A group of workers is trying to find out the volume of a container. They determine that the area of the container is 20 square meters. The height of the container is 10 meters. What is the container's volume?</p>	<p>24. A science student measures the pH of a solution using a pH meter. The pH of the solution is 7. The solution is</p>

25.] A spring scale is pulled downward and readings are recorded.

Data Table

Distance Pulled	Spring Scale Reading
1.0 cm	4 N
1.5 cm	6 N
2.0 cm	8 N
2.5 cm	10 N

If the spring is pulled 3.5 cm, the spring scale should read

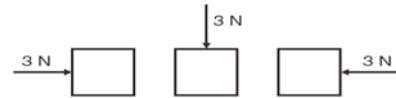
26. An athlete can run 9 kilometers in 1 hour. If the athlete runs at that same average speed for 30 minutes, how far will the athlete travel?

- A 18 kilometers
- B 9 kilometers
- C 4.5 kilometers
- D 3.3 kilometers

27.] Which characteristic of motion could change without changing the velocity of an object?

- A the speed
- B the position
- C the direction
- D the acceleration

28. A force is acting on each of the objects below.



What can be concluded about these forces?

- A They are the same because they point toward the objects.
- B They are the same because they have the same magnitude.
- C They are different because they have different magnitudes.
- D They are different because they have different directions.

29. A force of 5 N is required to increase the speed of a box from a rate of $1.0 \frac{\text{m}}{\text{s}}$ to $3.0 \frac{\text{m}}{\text{s}}$ within 5 s along a level surface. What change would most likely require additional force to produce the same results?

- A reduce the mass of the box
- B increase the mass of the box
- C make the surfaces of the box smooth
- D make the surface of the floor smooth

30.] A piece of pine wood floats on the surface of a lake because the water exerts

- A an upward force equal to the weight of the wood.
- B a downward force equal to the weight of the wood.
- C an upward force equal to the weight of the displacement water.
- D a downward force equal to the weight of the displacement water.

1	Burning trash
2	Mixture
3	Boil
4	Carbon
5	6.8 mL
6	Plasma
7	Ion
8	Electron
9	Subtract the Atomic Number from the Atomic Mass
10	They contain different amounts of neutrons
11	The color is related to the element the matter is made of
12	Displace the Oxygen
13	Repeatedly confirmed through experimentation
14	Family or Group 14
15	4
16	Energy is released as either heat or light.
17	8-9
18	Covalent
19	0 or 1
20	The decomposition is a chemical change releasing heat (exothermic)
21	Atomic number
22	Has properties that are different from the original elements or compounds
23	200 m ³ (AxH)
24	neutral
25	14 N
26	C 4.5 km
27	B. Position
28	D. Different Directions
29	B. Increase the Mass
30	C. Upward force equal to weight of displaced water

