socrative
A showbie PRODUCT

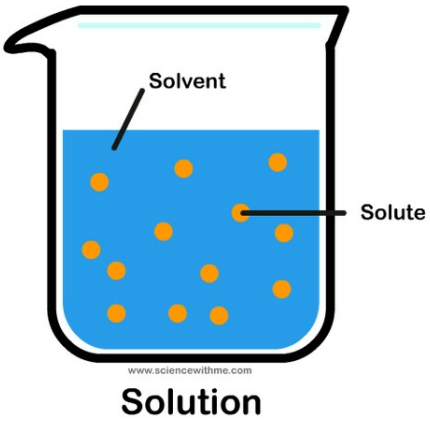
Name _____
Date _____

Pure Substances and Mixtures

Score _____

1. An example of a solution is:

(A) Hot chocolate.
(B) Windshield washer fluid.
(C) Brass.
(D) All of the above.



Solution

2. The chemical symbol for Sodium is:

(A) S
(B) S-O-D-I-U-M
(C) Na
(D) N

3. A sugar solution is boiled until all the liquid evaporates. Which statement represents the correct result?

(A) The water is evaporated to leave the residue (sugar).
(B) The residue (sugar) is evaporated to leave a solution.
(C) The water is evaporated to leave nothing.
(D) The dog is still thirsty.

4. A way to increase the rate of dissolving is to:

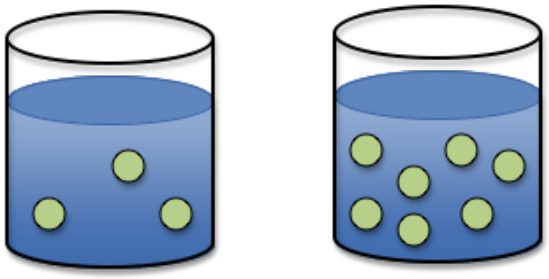
(A) Stir the mixture.

(B) Decreasing the temperature of the mixture.

(C) Dissolve the solute as a large piece.

(D) Leave it alone it will mix on its own.

5. Which of the following statements is the most correct?



(A) A solution can become more saturated by decreasing the temperature of a solution.

(B) A solution is unsaturated if more solute can be added to the solution.

(C) A mechanical mixture is made of solute and solvent.

(D) Stirring can increase the solubility of a mixture.

6. A mechanical mixture can be described as:

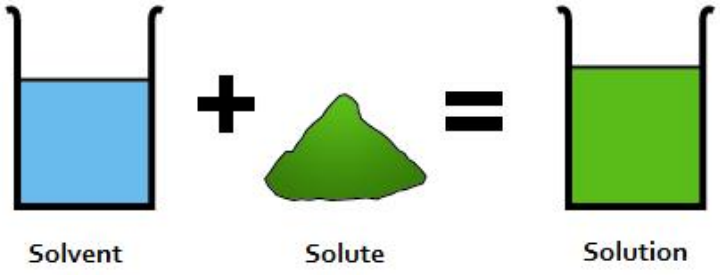
(A) A homogenous mixture.

(B) A heterogeneous mixture.

(C) A mixture that is the same throughout.

(D) The same thing as a solution.

7.



A solvent is:

(A) A substance that is dissolved.

(B) Always the liquid in a solution.

(C) Part of a mechanical mixture.

(D) A substance that does the dissolving.

8.

Which of the following is the most correct when thinking of sugar dissolving in water?

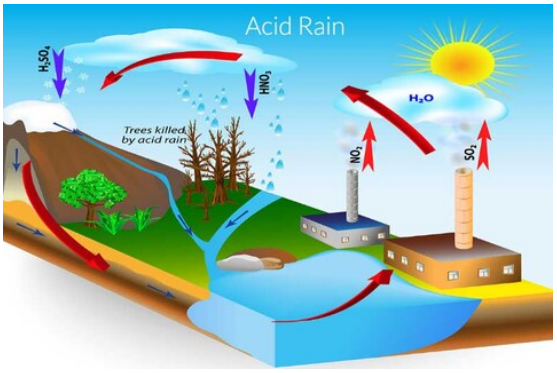
(A) Surface area size has no effect on the rate of dissolving.

(B) Increase in surface area will increase the rate of dissolving.

(C) Decrease in surface area will increase the rate of dissolving.

(D) Increase in surface area will decrease the rate of dissolving.

9. Which of the following is true about acid rain?



(A) Acid rain contaminates drinking water and kills aquatic organisms.

(B) Acid rain can occur because pollution from cars, factories, and waste disposal.

(C) Acid rain still exists in the winter but falls as acid snow.

(D) All of the above.

10. The main difference between hard water and soft water is:

(A) Hard water contains minerals and soft water contains very little minerals.

(B) Soft water has a soft feel on your skin and hard water does not.

(C) Hard water is heavier than soft water.

(D) Soft water has an unpleasant smell and hard water smells great.

11. What chemicals are not harmful in drinking water in small amounts?

(A) Chlorine, Potassium, and Fluorine.

(B) Calcium, Sodium, and Zinc.

(C) Magnesium, Chlorine, and Fluorine.

(D) Go ask Farmer Brown.

12. An acidic substance:

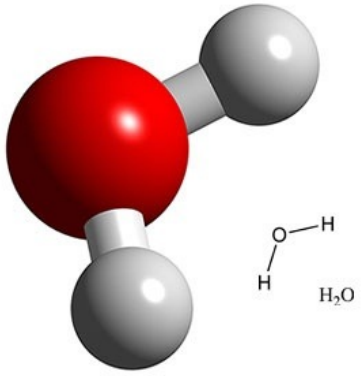
(A) Has a pH that is less than 7.

(B) Has a pH that is more than 7.

(C) Has a pH that is around 7.

(D) Cannot be eaten by people.

13. Water is known as the universal solvent because:



(A) Everything needs it to live.

(B) It has its own cycle called the water cycle.

(C) Water can dissolve every solute that exists.

(D) Water dissolves many solutes.

14.

Which of the following is a pure substance?

(A) Salt water.

(B) Wood.

(C) Calcium.

(D) Milk.

15. Which of the following is considered to be basic?

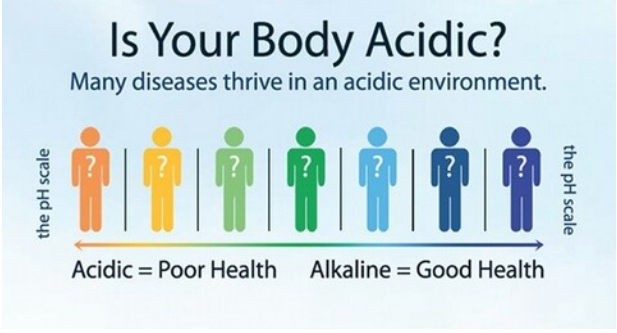
(A) Mr. Fitch's cooking.

(B) Toothpaste.

(C) Apples.

(D) Lemons.

16.



Which of the following is considered to be acidic?

(A) Limes.

(B) Baking soda.

(C) Water.

(D) Eggs.

17.

Which of the following is a mechanical mixture?

(A) Italian salad dressing.

(B) A chocolate chip cookie.

(C) Oil and water.

(D) All of the above.

18. You place a teaspoon of sugar at the bottom of a glass of still water. Without stirring the solution, you cover the glass so the water does not evaporate and leave it for one week. Which of the following would you most likely observe?

(A) The sugar would slowly dissolve in the water until it was no longer visible.

(B) The sugar would stay at the bottom of the glass of water and not dissolve.

(C) The sugar would float around inside of the water, but would not dissolve.

(D) The water would become solid after a few days.

19. You leave water in a saucer. After several days, all the water evaporated; no cats, dogs or other animals were present! The water particles:

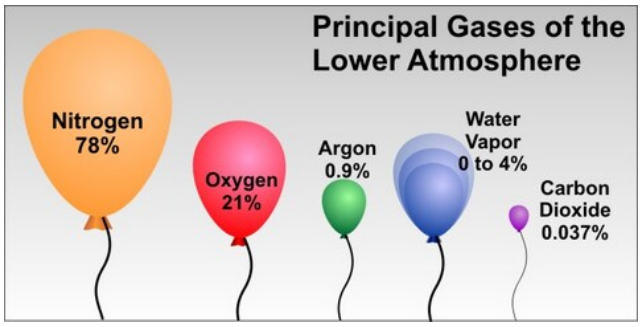
(A) Disappeared.

(B) Evaporated into the air, where they move around among the air particles.

(C) Evaported into the air and then disappeared.

(D) Disintegrated.

20.



Air is a mixture of nitrogen (~80 %) and oxygen (~20 %). If you could magnify air hundreds of times, you might see:

(A) An equal amount of oxygen and nitrogen particles moving around.

(B) More oxygen particles than nitrogen particles moving around.

(C) More nitrogen particles than oxygen particles moving around.

(D) Identical particles that are partly oxygen and partly nitrogen moving around.

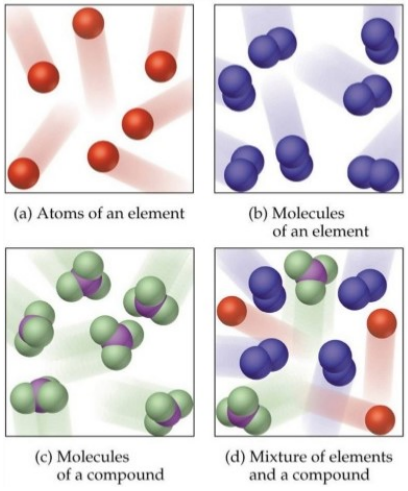
21. Which of the following is a compound?

(A) Hydrogen.

(B) Water.

(C) Oxygen.

(D) Carbon.



22. Your mom wakes up in the morning and starts her morning routine of making coffee. She uses a coffee machine with a filter and coffee grounds. This process is an example of:

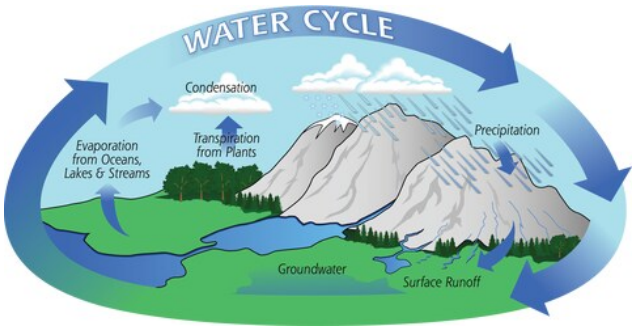
(A) Melting.

(B) Filtration.

(C) Dissolving.

(D) The start of a great day.

23.



What is another name for the water cycle?

(A) Super cycle.

(B) Hydrocarbon cycle.

(C) Hydrologic cycle.

(D) Hydrocycle.

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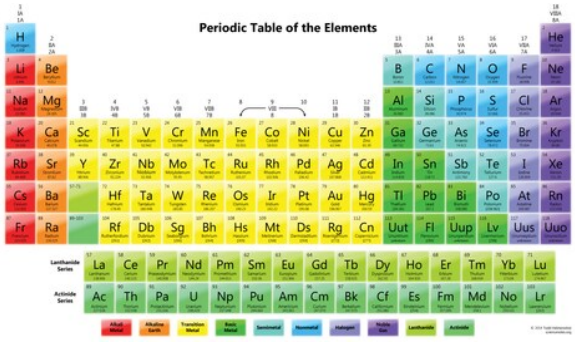


Who first created The Periodic Table of Elements?

(A) Albert Einstein.

(B) Farmer Brown.

(C) Dmitri Mendeleev.

(D) Mr. Fitch's kind twin.

25. What is water made up of?

(A) Two hydrogen molecules and one oxygen molecule.

(B) Two helium molecules and one oxygen molecule.

(C) Two oxygen molecules and one hydrogen molecule.

(D) Magical fairy dust.

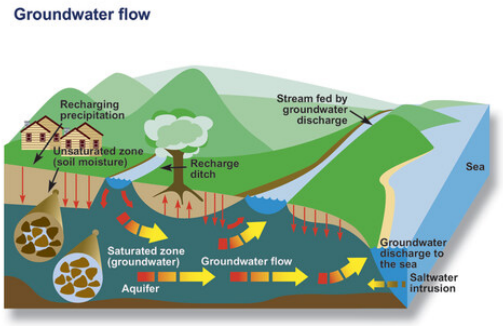
26. Ground water is:

(A) The same thing as rain water.

(B) Water that is soaked into the Earth.

(C) Water that runs into rivers.

(D) Water in lakes, rivers and oceans.



27. Precipitation is:

(A) Condensed water that falls to the earth such as rain, snow and hail.

(B) Not part of the water cycle.

(C) Unwanted body odour.

(D) The smell of homemade cookies.

28. Rain that forms into streams and rivers after falling from the sky is called:

(A) A good time.

(B) Run-off.

(C) Condensation.

(D) Run-away.

29. Water droplets that become heavy and fall to the ground as rain or snow is called:

(A) Condensation.

(B) Percolation.

(C) Precipitation.

(D) Anticipation.

30. Water that is warmed by the sun and rises as water vapour. The process is called:

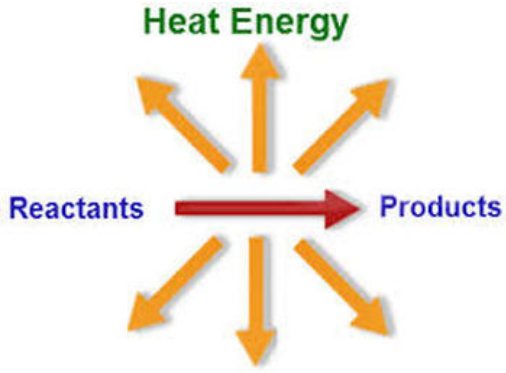
(A) Evaporation.

(B) Precipitation.

(C) Condensation.

(D) Baking.

31. Energy is often released during chemical reactions. An example of this is:



(A) Heat from a fire.

(B) The cool feeling when a breeze blows over you.

(C) Heat from rubbing your hands together.

(D) Light from an incandescent bulb.

32. Which of the following is not an alloy?

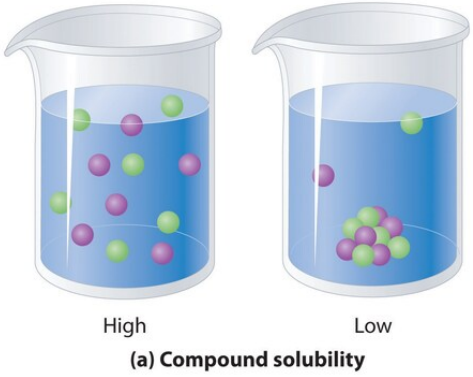
(A) Bronze.

(B) Salt.

(C) Brass.

(D) Steel.

33. In a solution, a solid or gaseous substance dissolved in a fluid is called a solute. Which of the following could be a solute in water?



(A) Wood.

(B) Sand.

(C) Oil.

(D) Sugar.