Science 5 - Sawyer Matter [Exam ID:6291]

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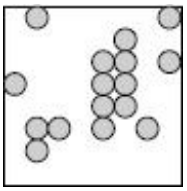
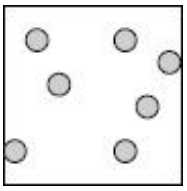
1 **Which of the diagrams best shows the arrangement of molecules in a solid?**

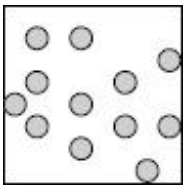
A



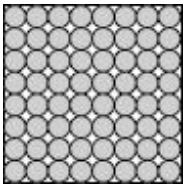
B



C



D



2 **Water, ice, and steam are alike because they —**

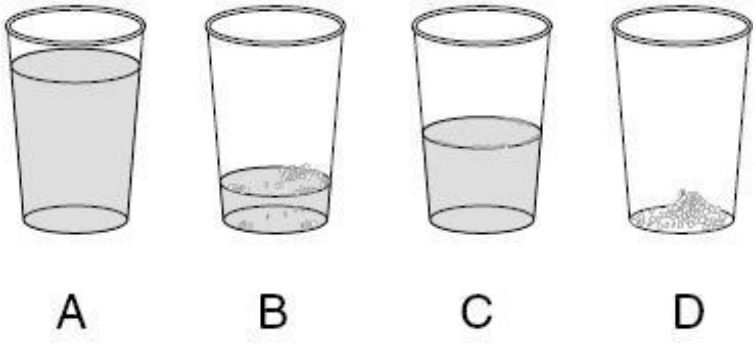
F are the same compound

G have the same shape

H look the same

J feel the same

3



Which set of pictures shows what happens to a glass of salt water when it is left out on a counter for several weeks?

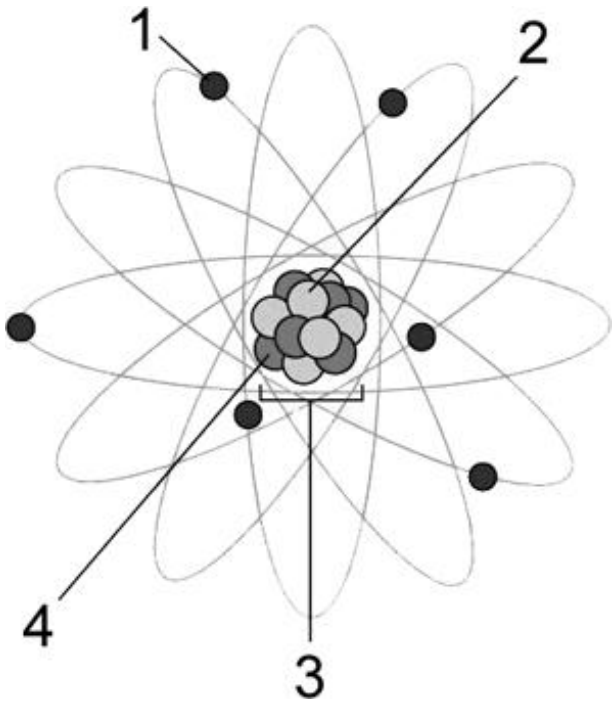
A D → B → A → C

B A → C → B → D

C C → D → A → B

D B → A → C → D

4



Look at the atom. Section 2 shows which part of the atom?

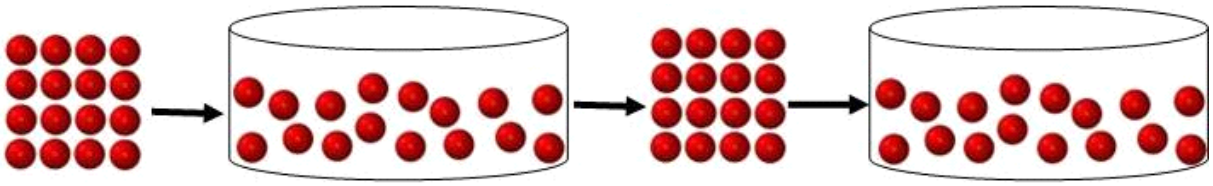
F Nucleon

G Proton

H Electron

J Tritron

5



This diagram shows two states of matter changing from one to another. Which states of matter and their changes are taking place?

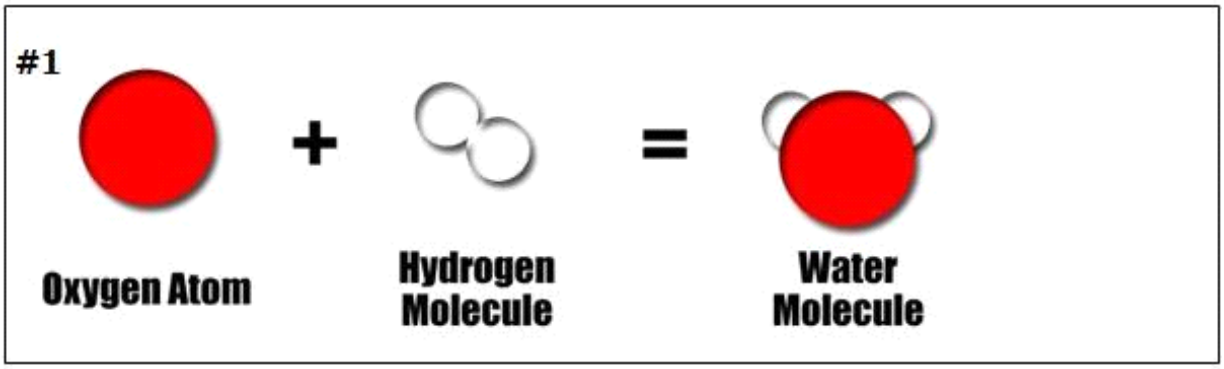
A Gas to a liquid, liquid to a gas, gas to a liquid

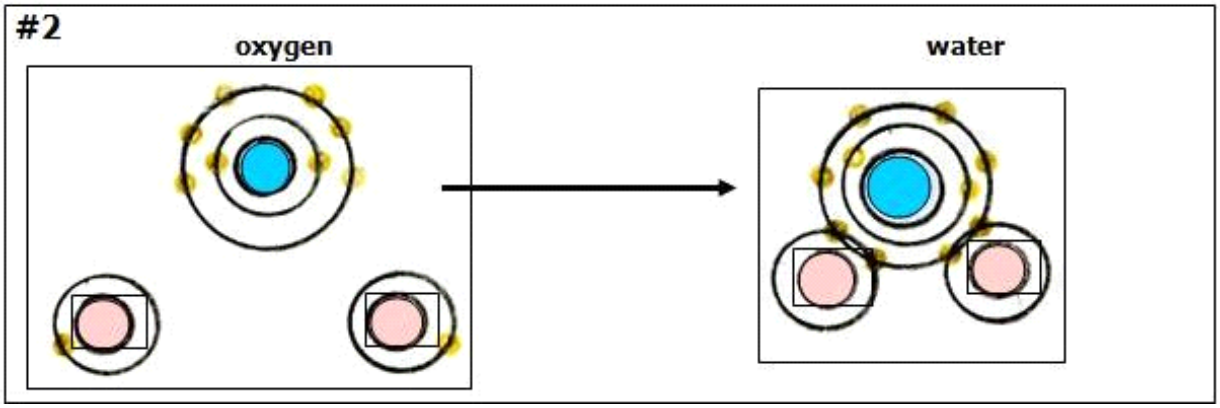
B Solid to a liquid, liquid to a solid, solid to a liquid

C Solid to a gas, gas to a solid, solid to a gas

D Liquid to a gas, gas to a liquid, liquid to a gas

6





These two pictures show how hydrogen and oxygen combine to form water. Based on these pictures, which of these is a good prediction for the future?

F Helium and oxygen combine to make water.

G Water will always look like this 

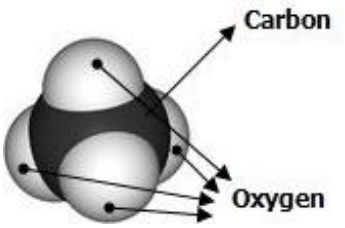
.

H Combining hydrogen and water will make oxygen.

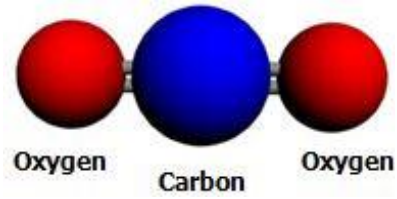
J Water will always look like this  .

7 **Carbon dioxide (CO_2) is a compound. Which of these is an accurate model of this compound?**

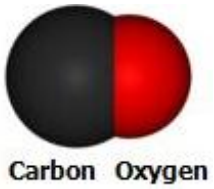
A



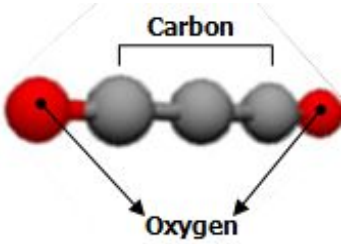
B



C



D



8 **Which of these is a way that elements and compounds are related?**

F Elements can form only one kind of compound.

G Elements always combine in the same way to form compounds.

H Elements combine in many different ways to form different compounds.

J Compounds combine to form elements.

9 **Which of these is NOT a compound?**

A NaCI

B Au

C CO

D H_2O

10 **Manuel observed steam rising from the pot of boiling water. The molecules in the steam are —**

F packed tightly and barely moving

G moving very slowly as they rise

H spread apart and moving very fast

J packed tightly and moving a little

11 **What determines whether matter is a solid, liquid, or gas?**

A Number of elements

B Number of electrons

C Speed of atoms or molecules

D Number of neutrons

12 **What orbits the nucleus of an atom?**

F Nucleus

G Electrons

H Protons

J Neutrons

13 **Atoms are the smallest part of a(n) —**

A electron

B proton

C element

D neutron

14 **The nucleus in the center of the atom is made up of —**

F protons and neutrons

G neutrons and electrons

H mixtures and compounds

J protons and electrons

15 **What is the smallest part of matter?**

A Voltage

B An atom

C A circuit

D A switch

16 **Marcella served a fruit salad made with bananas, grapes, and apples. The fruit salad is an example of a —**

F proton

G compound

H mixture

J solution

17 **Sugar is poured into a glass of water and dissolves. This is an example of a(n) —**

A ratio

B compound

C element

D solution

18 **Which is a solution?**

F Mixed fruit salad

G Lettuce and cucumber salad

H Peanuts and fruit

J Chocolate milk

19 **How are mixtures and solutions the alike?**

A They are both solids.

B They dissolve in water.

C They are both easy to separate.

D They have two or more ingredients.

20 **Joe combined sand and iron filings in a cup. He separated them using a magnet. Before he separated them, they were an example of —**

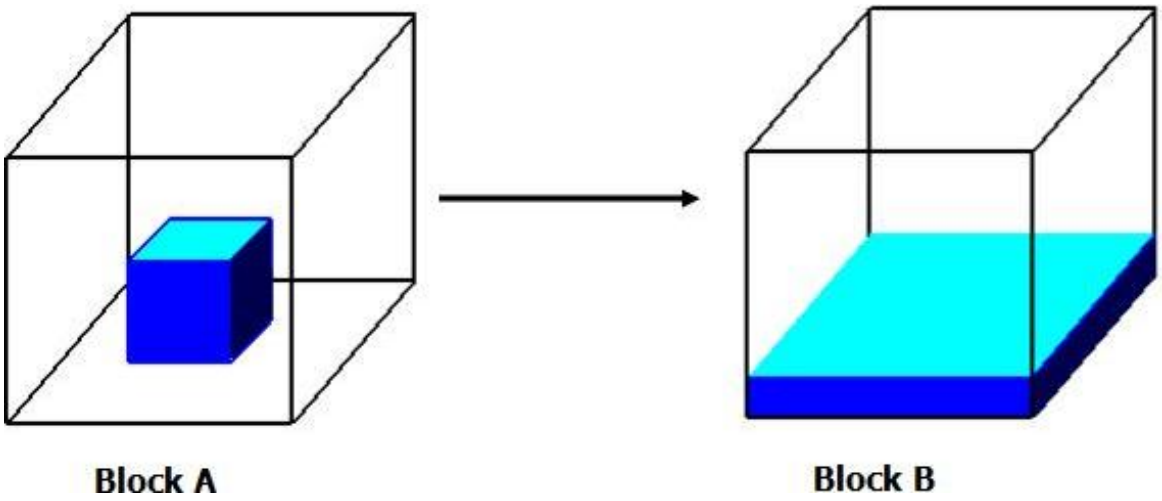
F a mixture

G a solution

H a neutron

J a molecule

21



Block A Block B

Each of these cubes represent a state of matter. What would need to happen to make the change from Block A to Block B?

A Temperature would need to increase.

B Temperature would need to stay the same.

C Temperature is not a factor.

D Temperature would need to decrease.

22 **Which of these is a mixture?**

F Lemonade

G Sugar

H Water

J Salt

23 **A student makes a fruit drink by stirring a powdered mix into cold water. Why is the fruit drink a solution?**

A The powder dissolves in the water.

B The water is the proper temperature.

C The student stirs the water.

D The water changes color.

24 **Juan made a cake using eggs, flour, milk, and sugar. A baked cake is an *best* example of a —**

F dry mixture

G liquid phase

H solution

J electron

25 **All of the following are considered liquids, but…**

A Kool–aid

B Coca–Cola

C water

D peanut butter

26 **Which of these will change solid iron to a liquid?**

F Increasing its temperature

G Adding water to the iron

H Crushing the solid iron

J Raising the air pressure

27 **What causes water molecules to change from a liquid into a gas?**

A Drinking the water

B Heating the water

C Pouring the water

D Cooling the water

28 **Which of the following will *not* happen when heat is applied?**

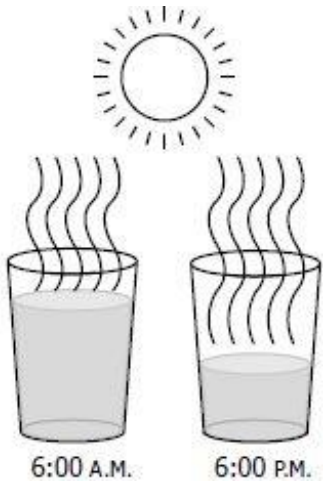
F Water freezes and becomes solid ice.

G Liquid water boils and becomes steam or gas.

H Liquid water evaporates and becomes a gas.

J Solid ice melts and becomes a liquid.

29



The process shown would be classified as —

A precipitation

B transpiration

C condensation

D evaporation

30

What is happening to the water molecules in this bottle of water?

F They are condensing.

G They are freezing.

H They are precipitating.

J They are evaporating.

31 **Which of these shows how frozen water changes as the temperature of the air increases?**

A Solid → liquid → gas

B Gas → liquid → solid

C Liquid → gas → solid

D Solid → gas → liquid

32 **When ice cream is left out of a freezer, the ice cream changes from a —**

F gas to a liquid

G solid to a gas

H liquid to a gas

J solid to a liquid