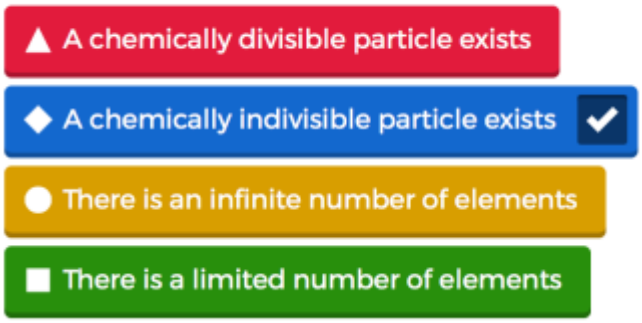
Kahoot Answers

1. Who said matter is **continuous**? Hide answers

Democritus and Dalton said it was discontinuous, Aristotle said it was continuous (that we could theoretically keep cutting it forever).

2. What does atomic **discontinuity** mean?



Discontinuity means that we have a particle that cannot be chemically split (as opposed to continuity, which suggests we could keep on cutting this particle forever).

3. Who said matter consisted of earth, wind, fire, and water?

Hide answers

Aristotle said this, and he was WRONG!

4. What phase of matter is able to hold its own shape?

Hide answers

Leave a solid alone and it will hold its shape. Leave a liquid alone and it will spill all over the floor ☹. Leave a gas alone and it will expand to fill its container.

5. Which of these phases of matter is compressible?

Hide answers

Due to the space in between gas particles, we can compress it. We cannot compress liquids.

6. Which of these phases of matter has particles that can only vibrate? Hide answers

Solid particles can only vibrate. Liquid particles can slide over one another. Gas particles move freely.

7. Which phase of matter can expand to fit its container?
Hide answers

If you have a closed half-filled bottle of water, its volume is only half of the bottle's volume because the liquid does not expand. A gas however does fill its entire container. So if you boil all of this water, the volume of water vapour is now the volume of the container.

8. What did Dalton say? Hide answers

… and atoms of different elements look different. He also said Democritus was right.

9. Which is true? Hide answers

A molecule is at least 2 atoms joined together. If these atoms are the same, then it is an element. If these atoms are different, then it is a compound.

10. The atmosphere is mostly N_2. This is: Hide answers

It's an element because there is only one type of atom (N). It's also a molecule.

11. SF_6 has the opposite effect on your voice than helium. What is SF_6? (disclaimer: don't do this) Hide answers

This has two different elements, Sulfur (S) and Fluorine (F), so it is a compound. It's also a molecule. By the way, this compound makes your voice sound very deep, because it is much denser than helium.

12. How many atoms are in H_2SO_4?

▲ 3 ◆ 6 ● 7 ✔ ■ 10

2 Hydrogen + 1 Sulfur + 4 Oxygen = 7 atoms in total.

13. $HCl + NaOH \rightarrow NaCl + H_2O$ Hide answers

▲ This is balanced :) ✔ ◆ This is unbalanced... science jail :(

On the reagents side, there are: 2 Hydrogen, 1 Chlorine, 1 Sodium, 1 Oxygen
On the products side, there are: 2 Hydrogen, 1 Chlorine, 1 Sodium, 1 Oxygen So this is balanced.

14. $HCl + NaOH \rightarrow NaCl + H_2O$ What are the reaction's products? Hide answers

▲ $NaCl$ and H_2O ✔ ◆ HCl and NaOH ● HCl and H_2O ■ NaOH and NaCl

Reagents are what you start with (HCl and NaOH in this case), and products are what you end up with (NaCl and H_2O in this case).

15. 36 g of HCl was added to 27 g of NaOH to produce 17 g of NaCl and how much water? Hide answers

▲ 36 g ◆ 46 g ✔ ● 63 g ■ 80 g

This is for the same reaction as question 14.

Reagents: $\frac{36\text{ g} + 27\text{ g}}{63\text{ g}}$ Products: $\frac{17\text{ g} + x}{63\text{ g}}$ 63 g – 17 g = **46 g**

16. You bake a cake with a mass of 724 g. 6 g of vapor was lost during baking. Mass of ingredients? Hide answers

▲ 6 g ◆ 718 g ● 724 g ■ 730 g ✔

Your reagents in this case are all of the ingredients. Your end products are the cake and vapour, which total 730 g. According to the law, you must have started with this mass, so your ingredients total 730 g.

17. 38 g of H_2SO_4 is added to sugar to produce 71 g of carbon, 8 g of sulphur oxide & 4 g of vapour Hide answers

- ▲ The mass of sugar is 12 g
- ◆ The mass of sugar is 38 g
- ● The mass of sugar is 45 g ✓
- ■ There are 83 g of sugar

Make sure you write out the equation in words so that you can clearly see the reagents and products (this is the reaction for the video we watched with the black "snake" rising out of the beaker.

Note: H_2SO_4 = sulfuric acid

sulfuric acid + sugar → carbon + sulphur oxide + vapour

38 g ? 71 g 8 g 4 g

83 g 83 g

83 g – 38 g = **45 g of sugar**

18. Which is the best joke? Hide answers

- ▲ Atoms can't be trusted because they make up everything. ✓
- ◆ All the good jokes argon (Ar). ✓
- ● Friend 1: wanna hear a sodium joke? Friend 2: Na ✓
- ■ All of these jokes matter. ✓

All of these jokes are hilarious.