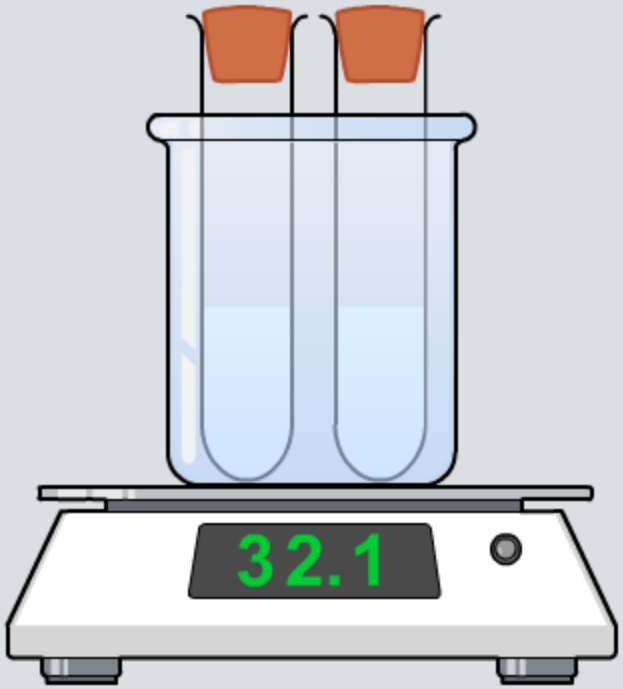
Conservation of Mass

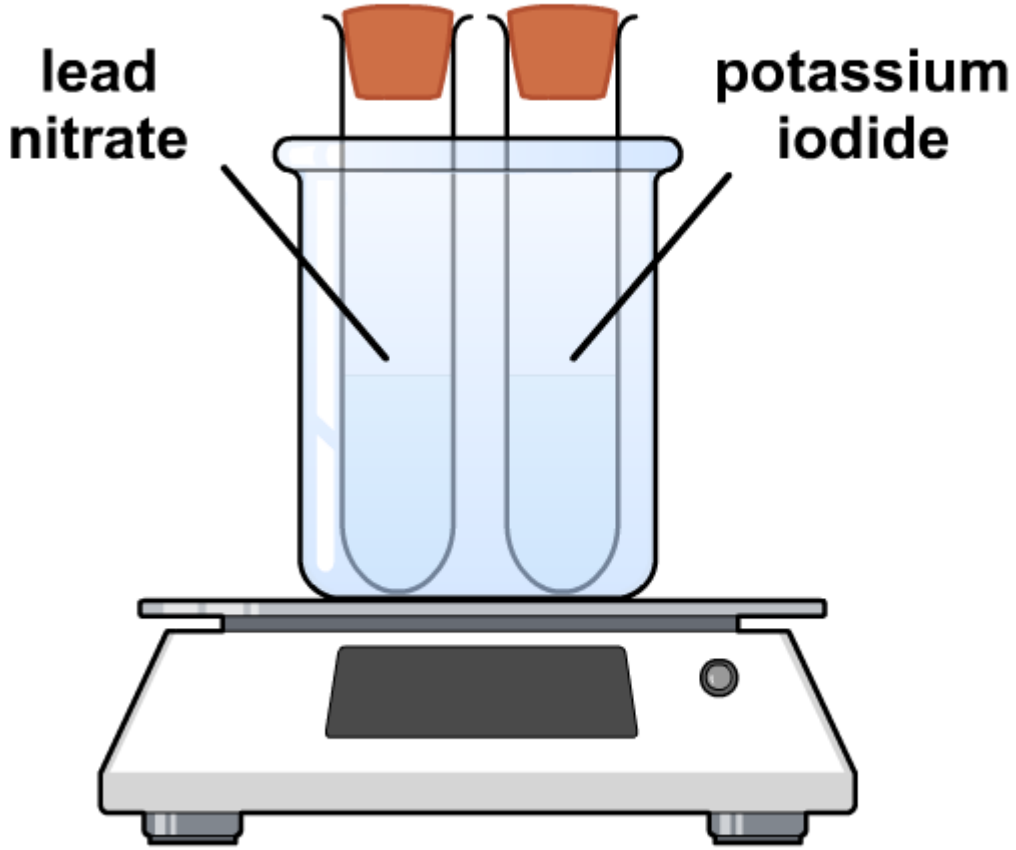


Mass during a reaction

What happens to the total mass in a chemical reaction?

During a reaction, the total mass of the substances involved remains constant.

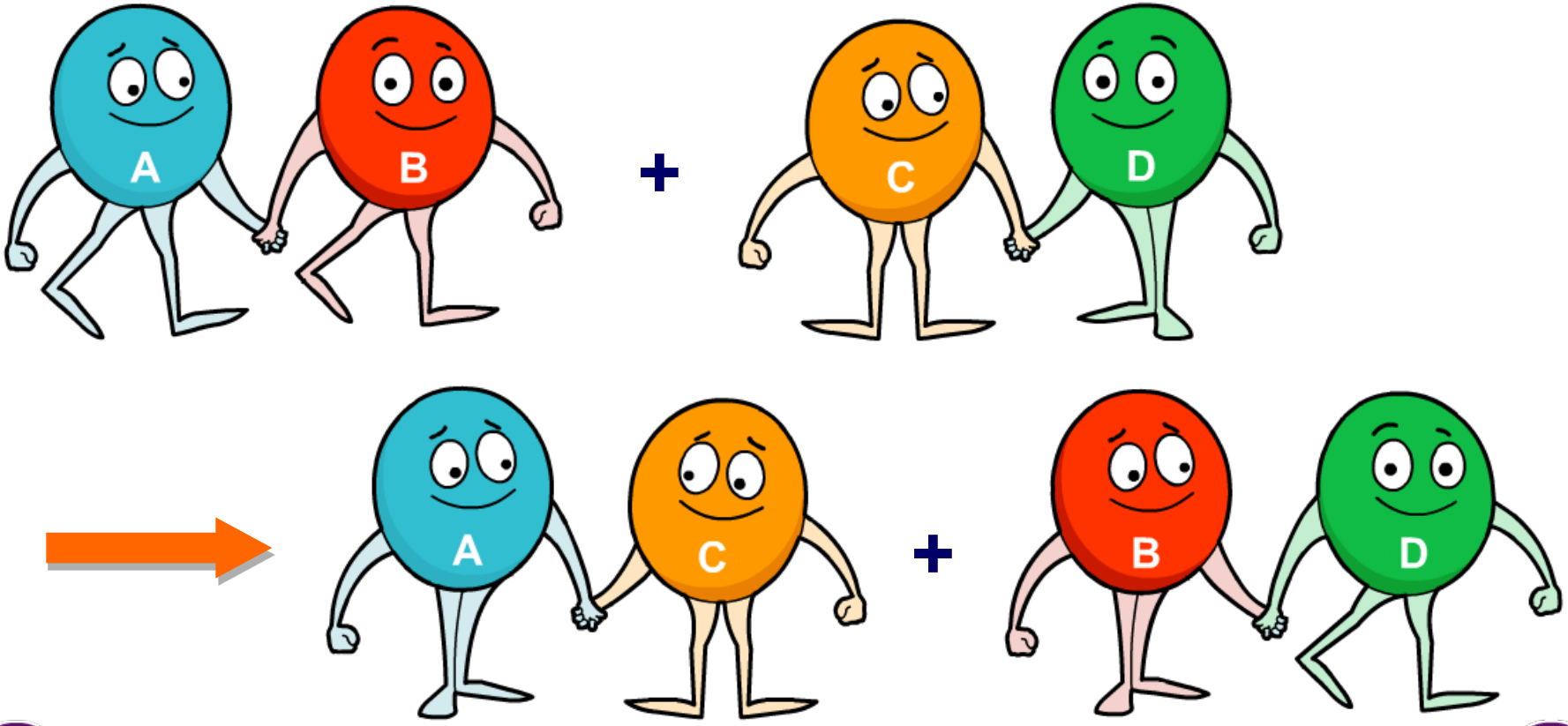
Click "**play**" to see what happens when lead nitrate and potassium iodide react.



Why doesn't the mass change?

In chemical reactions, no atoms can be made or destroyed.

Chemical reactions just change how the atoms are bonded together.

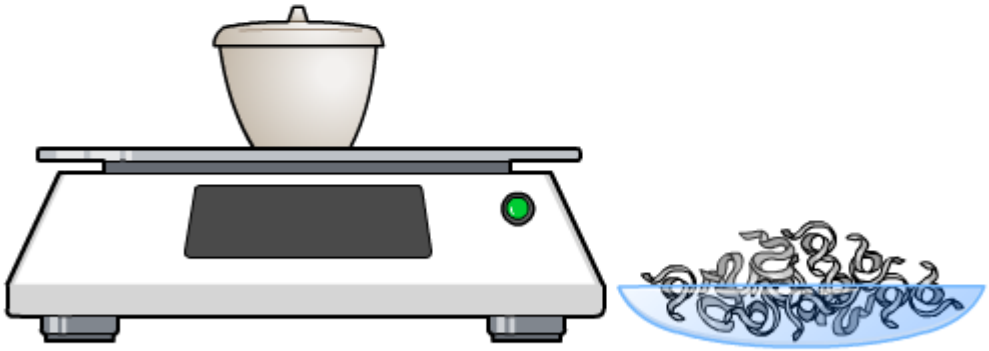


What happens to the mass?

What happens to mass during this reaction?

How does the mass of the substance change during this reaction?

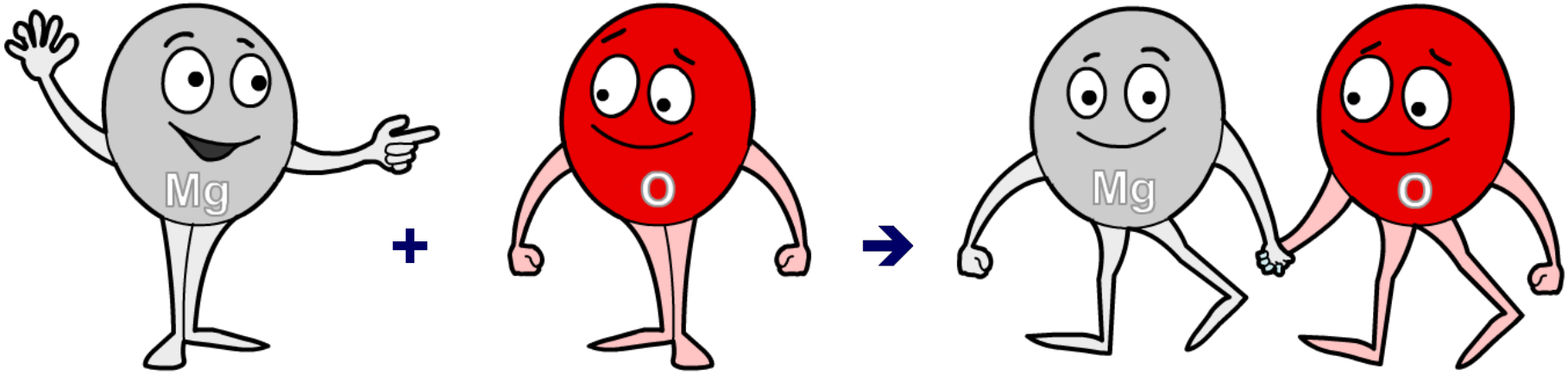
Click "**play**" to find out.



Why did the mass increase?

In the reaction between magnesium and oxygen, the mass increased.

This is because the magnesium atoms joined with oxygen atoms.



What is the word equation for this reaction?

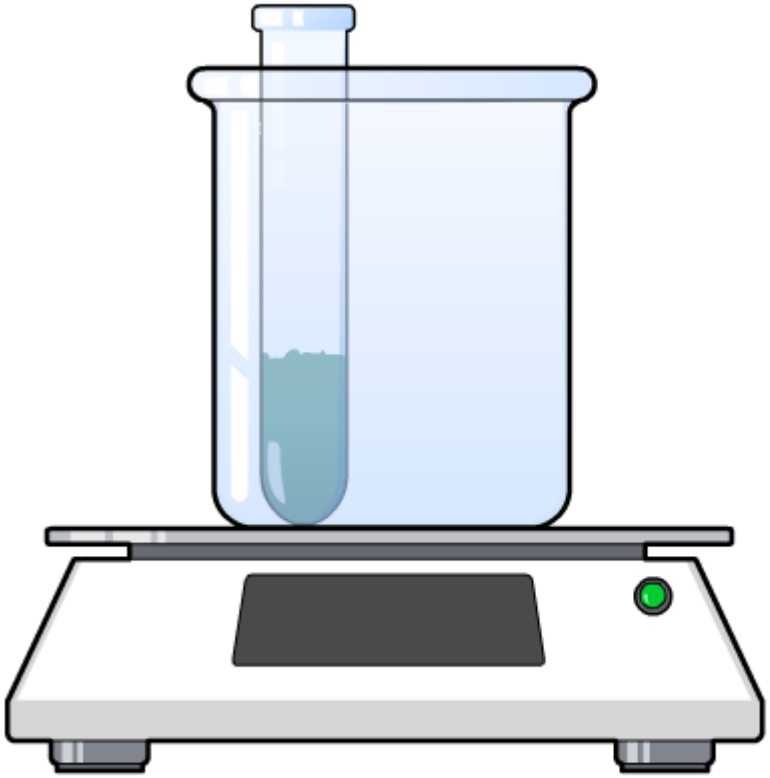
magnesium + oxygen → magnesium oxide

What happens to the mass?

What happens to mass during this reaction?

How does the mass of the substance change during this reaction?

Click "**play**" to find out.



Why did the mass decrease?

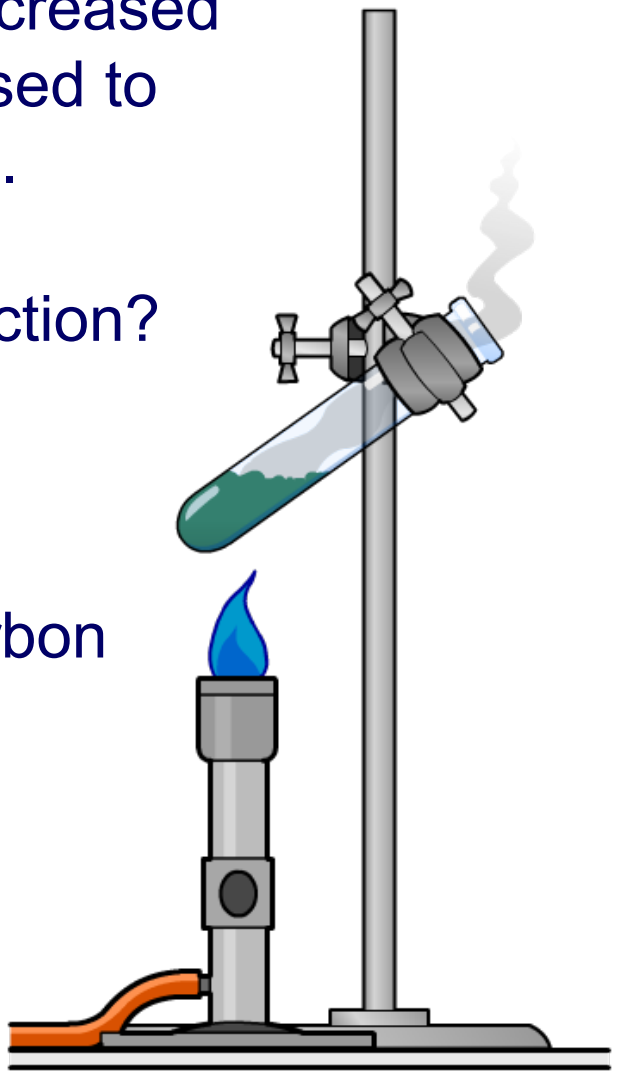
The mass of the copper carbonate decreased as it was heated because it decomposed to form copper oxide and carbon dioxide.

What is the word equation for this reaction?

Why did the mass decrease?

The mass decreased because the carbon dioxide gas escaped out into the air.

Can you calculate the mass of carbon dioxide that was produced in the reaction?



Chemical reactions – true or false?

Are these statements about chemical reactions true or false?

1.	Melting ice is a chemical reaction.	
2.	Wood burning is a chemical reaction.	
3.	Dissolving sugar in tea is a chemical reaction.	
4.	Cooking an egg is a chemical reaction.	
5.	The total mass of reactants is always the same as the total mass of products.	
6.	Magnesium reacts with oxygen to make magnesium oxide.	

true false

?

solve