



# The Law of Conservation of Mass



All matter is made from small particles called atoms. Atoms are too small for our eyes to see. Mass is the amount of matter in a substance or object. A physical change is a change in the state or shape of matter that does not create a new substance. A chemical change is a change that occurs to matter when a new substance is formed.

Our question for today is: When matter goes through a physical or a chemical change, does the mass of the matter change? Can atoms be destroyed or created during chemical reactions?

What do you think? YES or NO

## Conservation of Mass Word find!

R	E	T	T	A	M	L	R	L	I
S	D	C	H	E	M	I	C	A	L
S	U	L	I	O	G	J	N	C	N
C	M	B	A	A	O	O	A	I	S
H	G	O	S	C	I	S	D	S	M
A	B	M	T	T	I	C	Y	Y	A
N	M	P	C	A	A	M	W	H	L
G	C	A	P	W	A	N	E	P	L
E	E	A	S	S	A	M	C	H	I
R	C	T	H	I	D	V	U	E	C

Words to find:

- MATTER
- CHEMICAL x2
- PHYSICAL
- CHANGE
- REACTION
- MASS
- SMALL
- SUBSTANCE
- ATOMS



# Demonstration Diagram and Data Analysis

Reaction #1



Overall **Conclusions** for Reaction #1:

Substances being used in reaction #1:

\_\_\_\_\_ and \_\_\_\_\_

Starting mass of reaction: \_\_\_\_\_

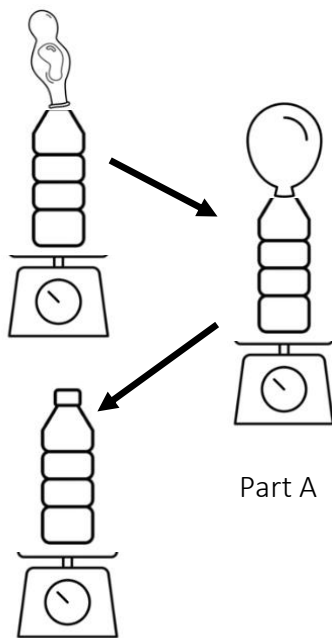
Visual observations during reaction:

\_\_\_\_\_  
\_\_\_\_\_

Ending mass of reaction: \_\_\_\_\_

Was there a change in mass? \_\_\_\_\_

Reaction #2 (A & B)



Part A

Part B

Overall **Conclusions** for Reaction #2:

Substances being used in reaction #2:

\_\_\_\_\_ and \_\_\_\_\_

Starting mass of reaction: \_\_\_\_\_

Visual observations during Part A:

\_\_\_\_\_  
\_\_\_\_\_

Ending mass of Part A: \_\_\_\_\_

Part A is called a closed/open system. (circle)

Visual observations during Part B:

\_\_\_\_\_  
\_\_\_\_\_

Ending mass of Part B: \_\_\_\_\_

Part B is called a closed/open system. (circle)

Was there a change in mass between Part A and Part B? \_\_\_\_\_ Explain below: