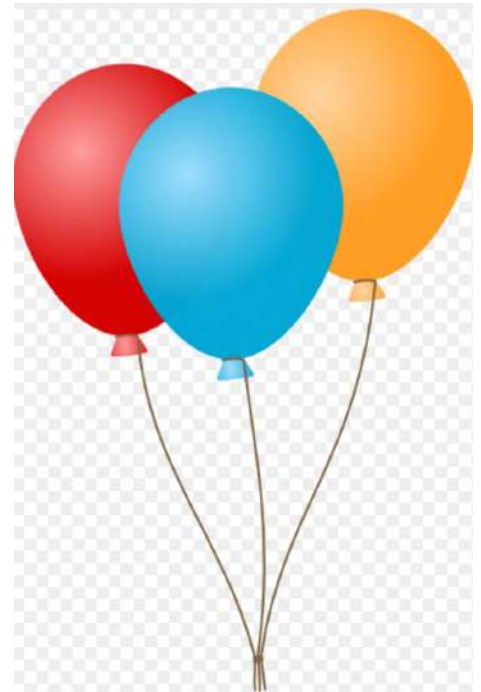


# Matter



Marianna Williams 5-D

# What is Matter?

Matter is anything that has mass and takes up space.

## Properties of Matter

```
graph TD; A[Properties of Matter] --> B[Mass]; A --> C[Volume];
```

### Mass

Mass is a measure of the amount of matter in an object.  
Mass is often measured in kilograms.  
Mass is a property of Matter

### Volume

Volume describes how much space matter takes up.  
Volume is measured in milliliters.  
The volume of a solid may be measured using a cylinder, a beaker, or measuring cup.

# Mass and Weight: Are They Different?

## Mass vs. Weight

### Mass

Mass is a measure of the amount of matter in an object. Mass is often measured in kilograms. You would use a double pan balance scale to measure mass. On the moon your mass would stay the same.

### Weight

Weight is the of pull of gravity between earth and a object. Weight is measured in newtons. You use a scale to measure weight. On the Moon your weight would change, because the moon has less mass than earth so the force of gravity between your body and the moon would be less.

This object sinks.



These objects float



Volume

Mass

Density  
Formula

# Density

The density of an object tells us how massive something is for its size.

Density of an object tells us how massive something is. Density affects buoyancy because density tells the gravity in an object and buoyancy lets an object float or sink. The densities of solids, liquids, and gases compare because liquid *particles are packed together tightly but gases can move around unlike solids particles.*

# Conductor or Insulator?



A conductor is something that conducts energy well.



A insulator does not let energy flow through.



# Matter

Mass  
Volume  
Weight  
Density

Some careers that use the properties of matter are engineers and scientists use the properties of matter when they design and build new things. Some other jobs that use the properties of matter are doctors and teachers.

Conductors  
and  
Insulators

# References:

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<http://go.grolier.com>

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