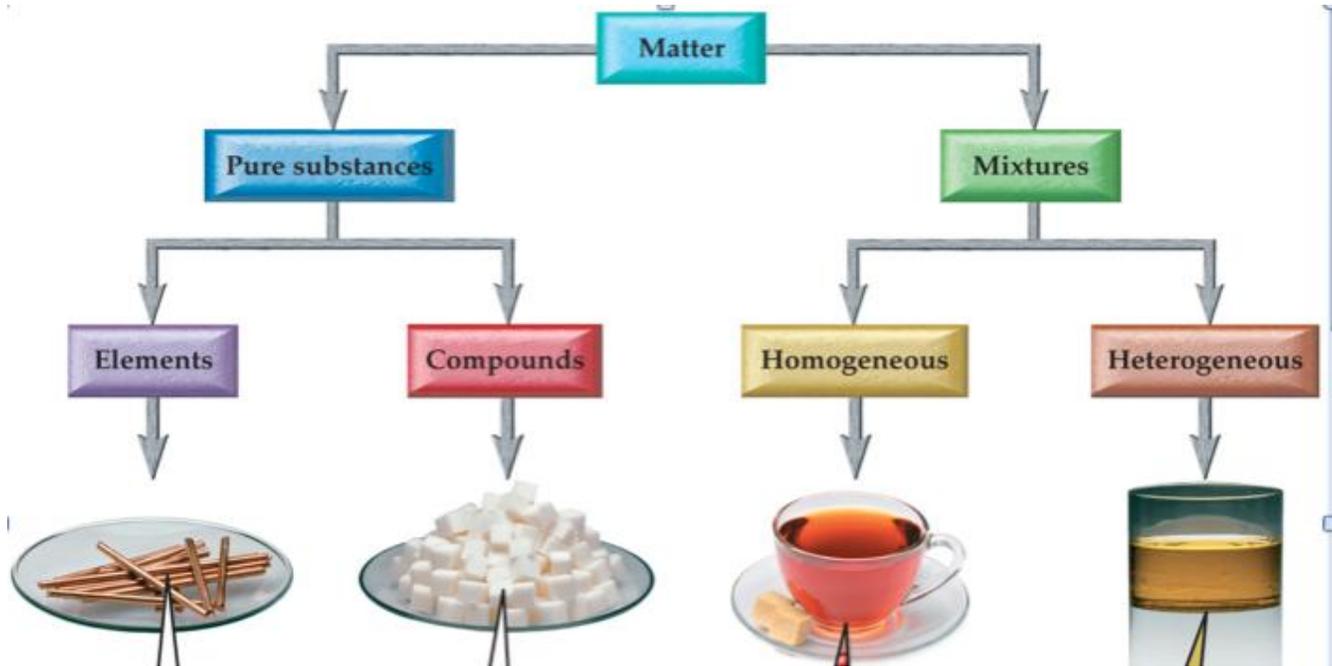




Heat

Energy being given off or absorbed



Substance

What things are made of



Chemical Change

When one or more substances are changed to form a new substance



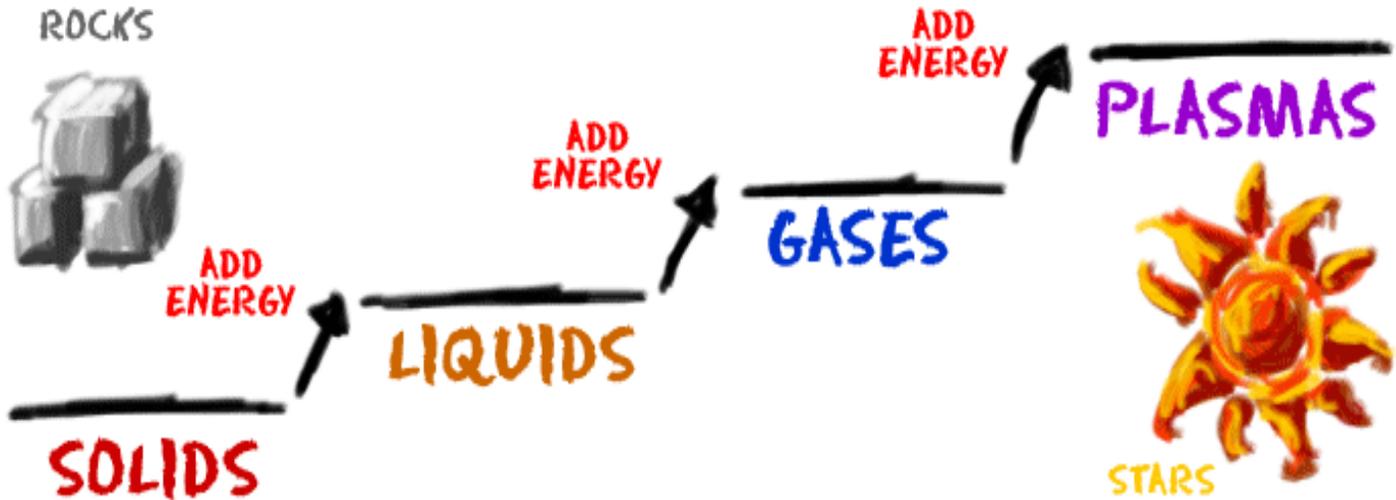
Dissolve

The disappearance of one substance into another
when they are mixed



Physical Change

Change the form of the matter, but don't change
its identity



THE STATE OF MATTER CHANGES AS YOU ADD MORE ENERGY

Matter

Something that has mass and volume

Metal rusting



Candle burning



Bananas turning brown



Fire extinguisher foaming



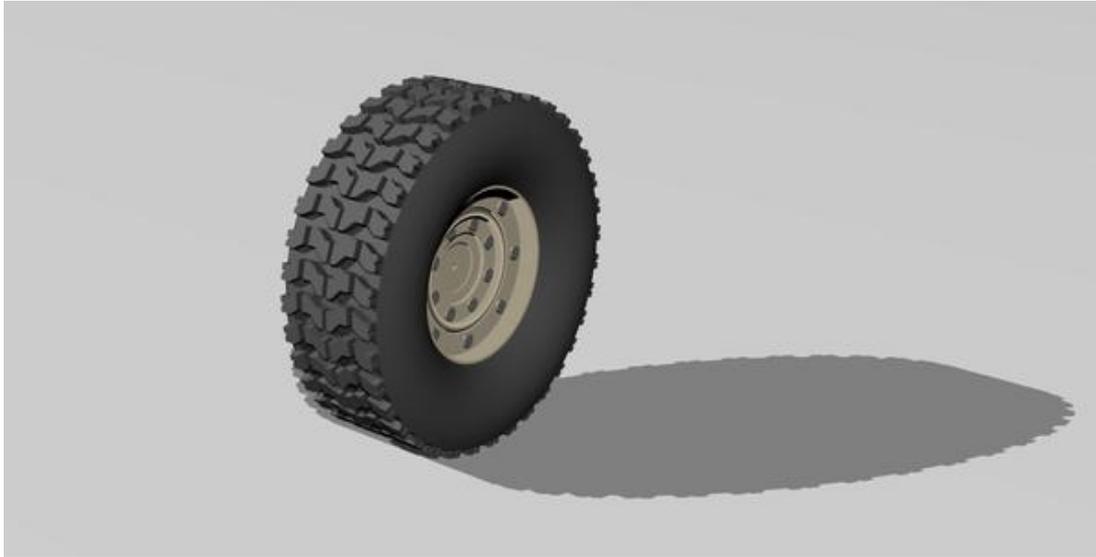
Product

What is made from a chemical change



Reactants

What is put in to make a chemical reaction



Solid

A uniform substance that has a definite volume
and holds its own shape



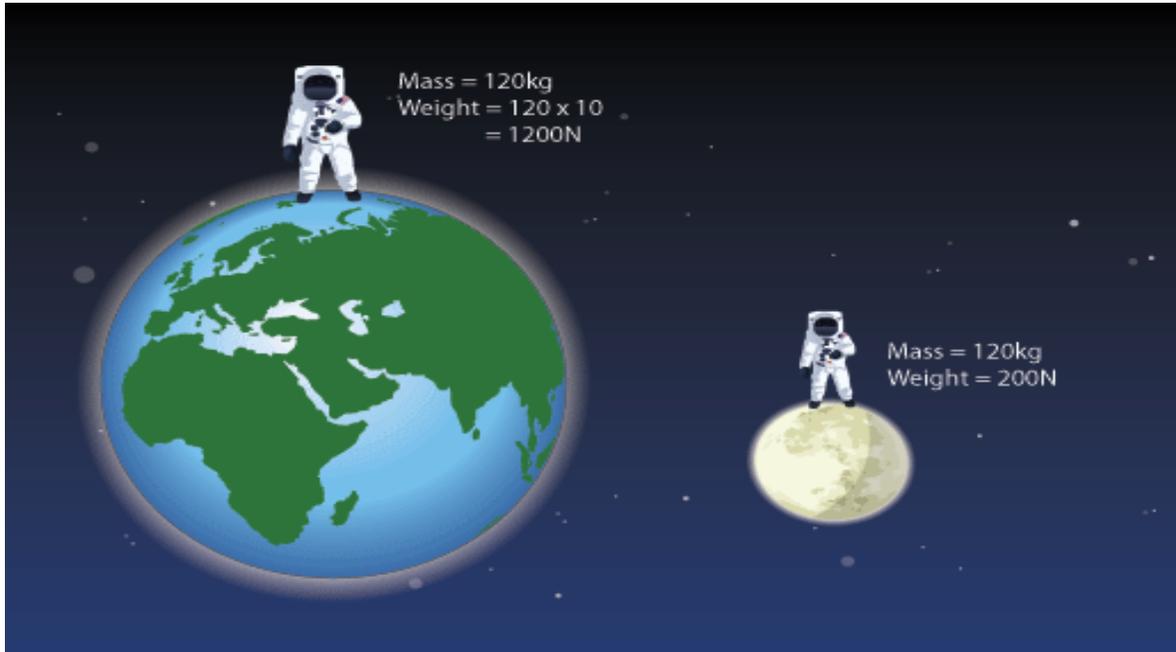
Liquid

Matter that has a definite volume but no definite shape, and takes the shape of its container



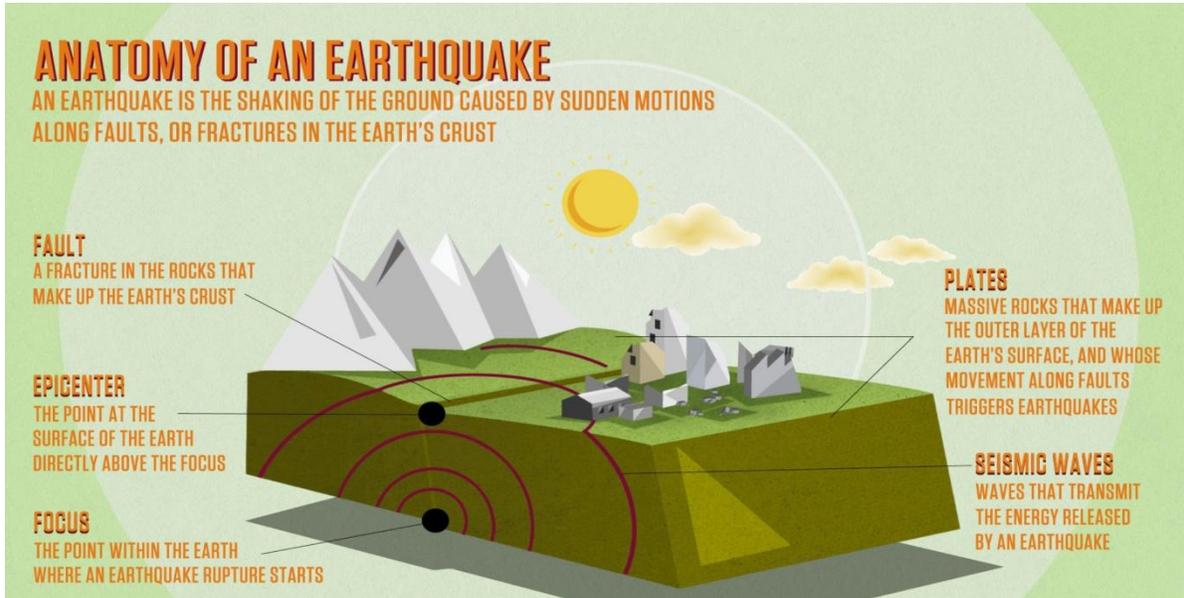
Gas

No definite shape or volume



Weight

The pull of gravity on matter



Earthquakes

Energy waves passing through Earth caused by a sudden shift of Earth's crust along a fault



Arches

Curved rock formations, formed by a combination of erosional forces



Butte

An isolated hill with steep, even sides, and a flat top



Deposition

The dropping of sand and rock carried by wind or water as it slows down or from ice that melts



Erode

To wear away by the action of water, wind, or glaciers



Erosion

The process of moving weathered bits of rock from one place to another



Fault

A crack in Earth's crust that allows the crust to slip



Geological

Relating to the structure of Earth and the changes that have taken place over the years



Glaciers

Thick layers of ice



Uplift

Part of Earth's surface that rises above the surrounding land by great forces of heat and pressure deep within Earth



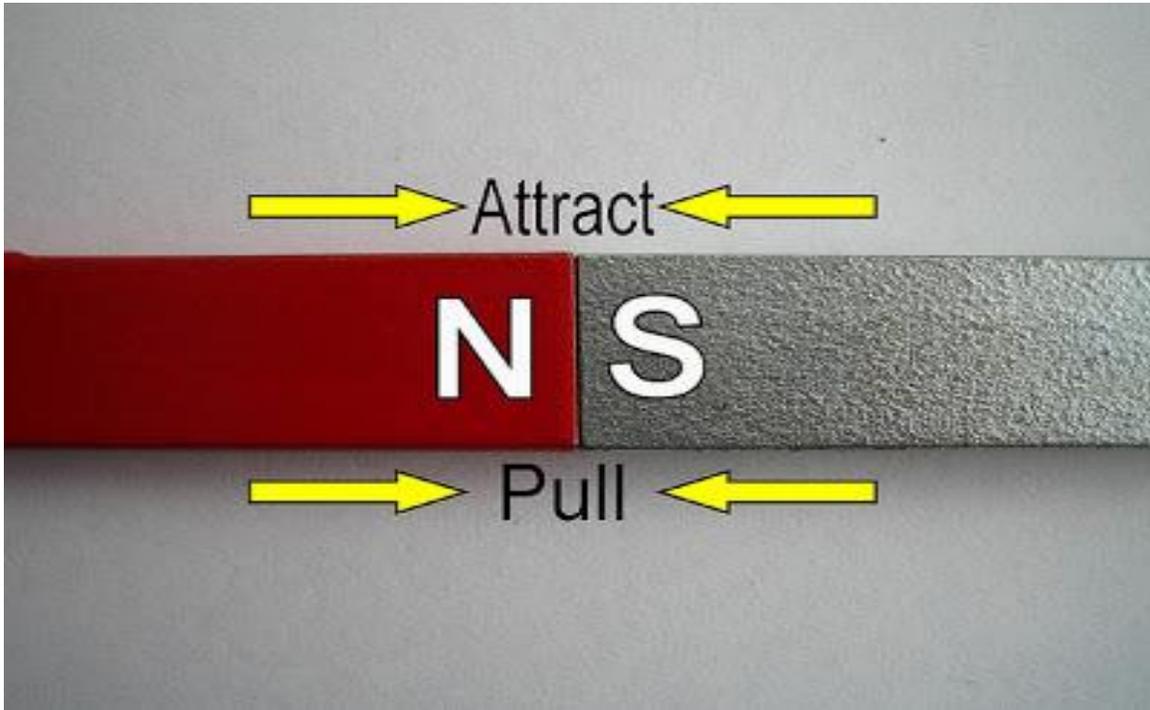
Volcano

An opening in Earth's crust that allows hot, melted rock, ash, and gases to erupt outward



Weathering

The physical breaking up of the rocks on Earth's surface into smaller pieces of rock or sand



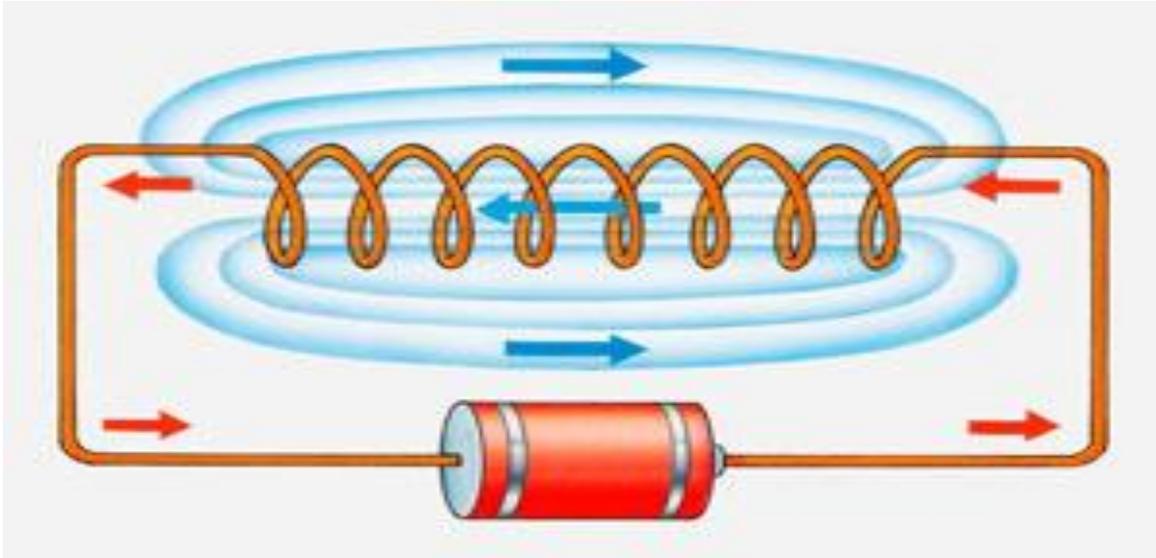
Attract

To draw objects together



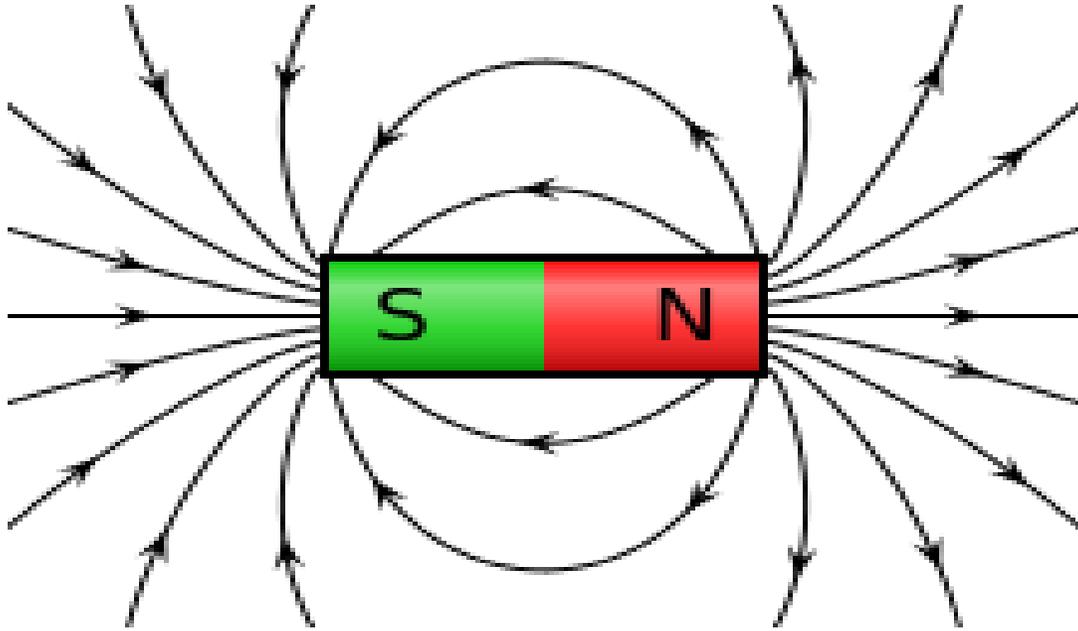
Compass

An instrument used to determine geographic direction on Earth



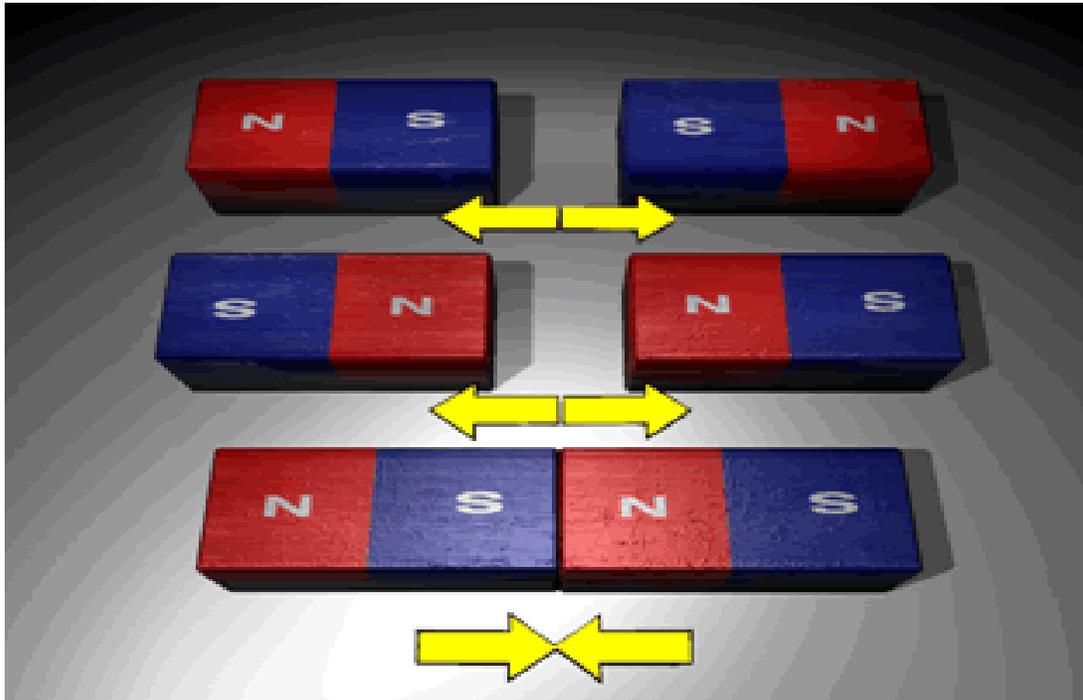
Electromagnetism

The magnetism produced when an iron core is magnetized by an electric current passing through a wire that is coiled around an iron core



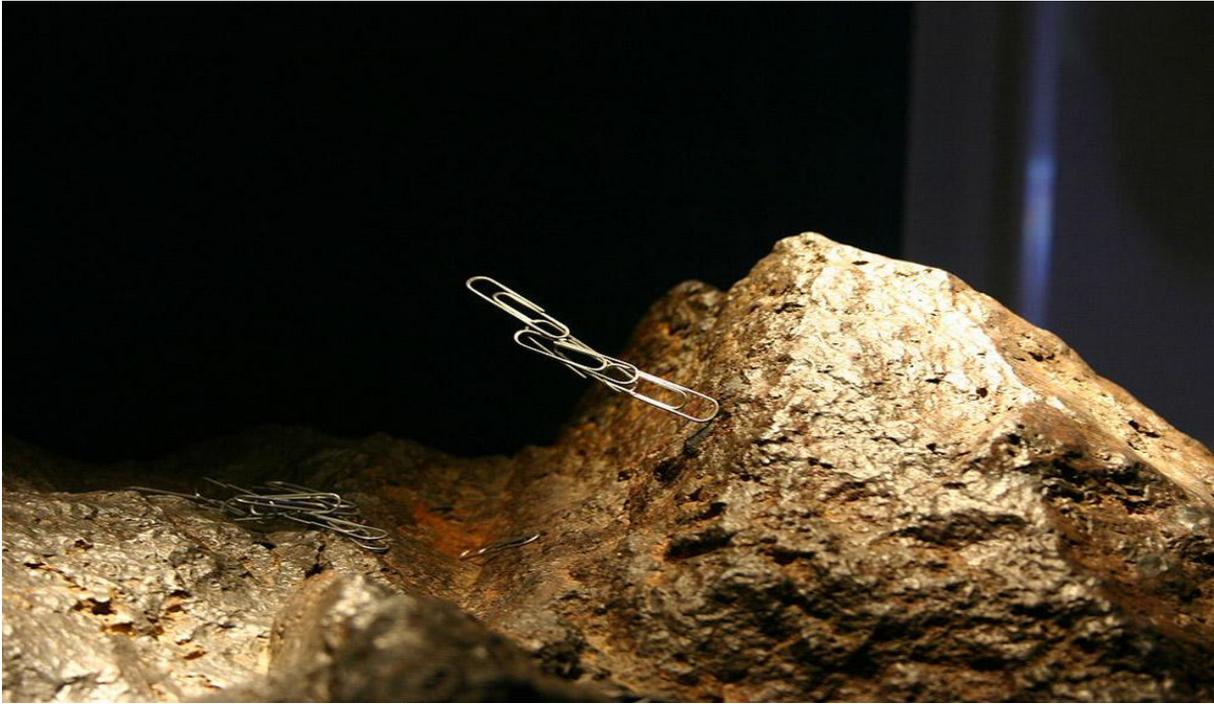
Magnetic Field

The area around a magnet where the magnet has power to attract magnetic material



Magnetic Force

The power of a magnet to push or pull other magnetic material



Natural Magnet

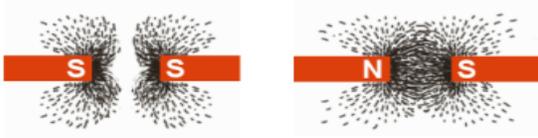
A mineral made magnetic by Earth's magnetic field



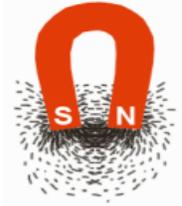
Permanent Magnet

An object that keeps its magnetism after it has been magnetized

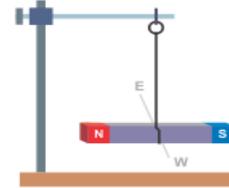
1. **Magnet has two poles** –These are the ends of a magnet where magnetic force is strongest.



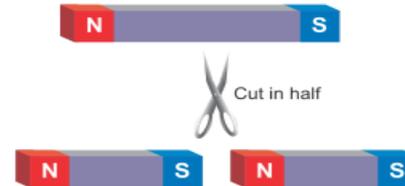
3. Magnet always **attracts objects made up of iron and steel.**



2. When a magnet is suspended freely, it comes to **rest in the north-south direction.**

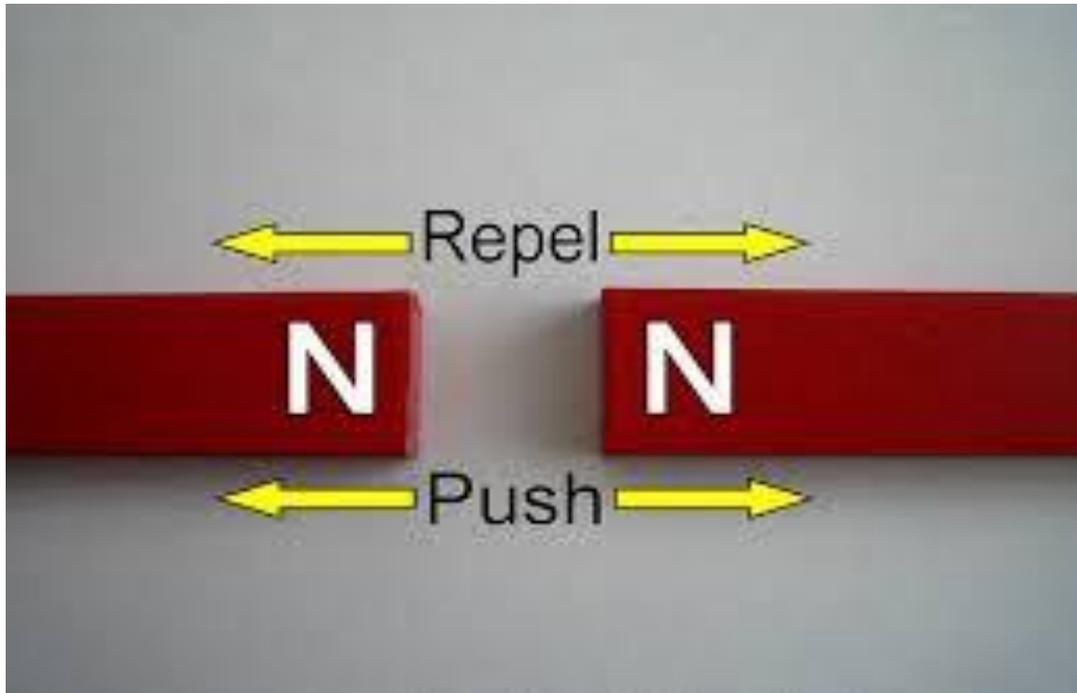


4. **Poles always exist in pairs.** They cannot be separated.



Properties

Qualities or characteristics



Repel

To push objects apart



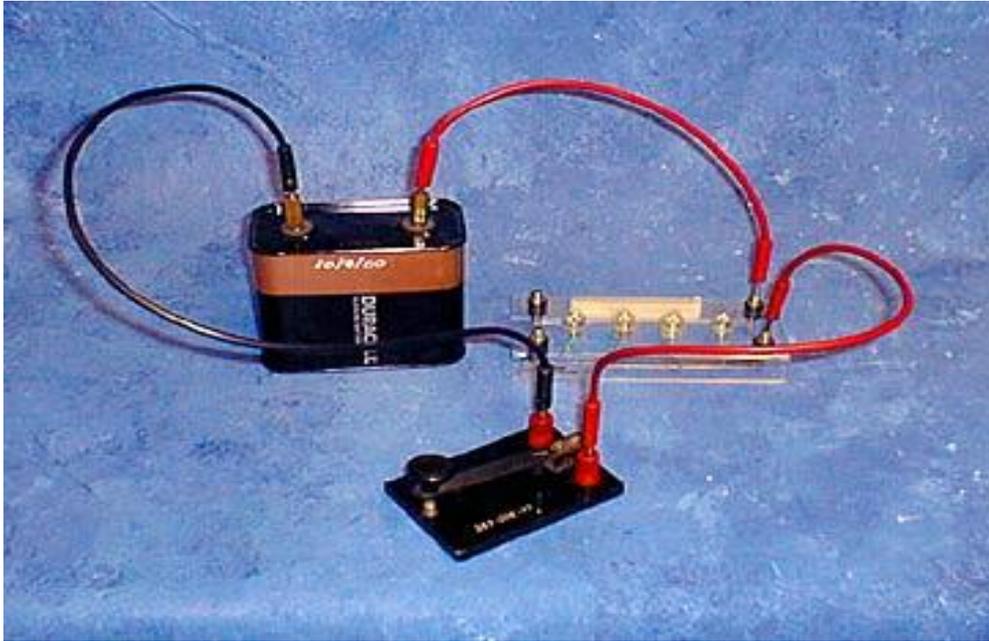
Temporary Magnet

A magnet that does not keep its magnetism



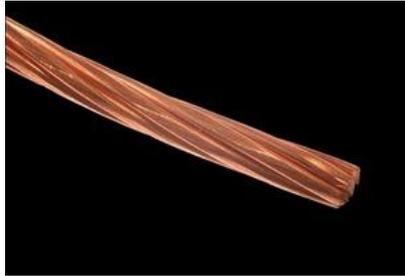
Battery

A device that generates electricity by combining certain chemicals



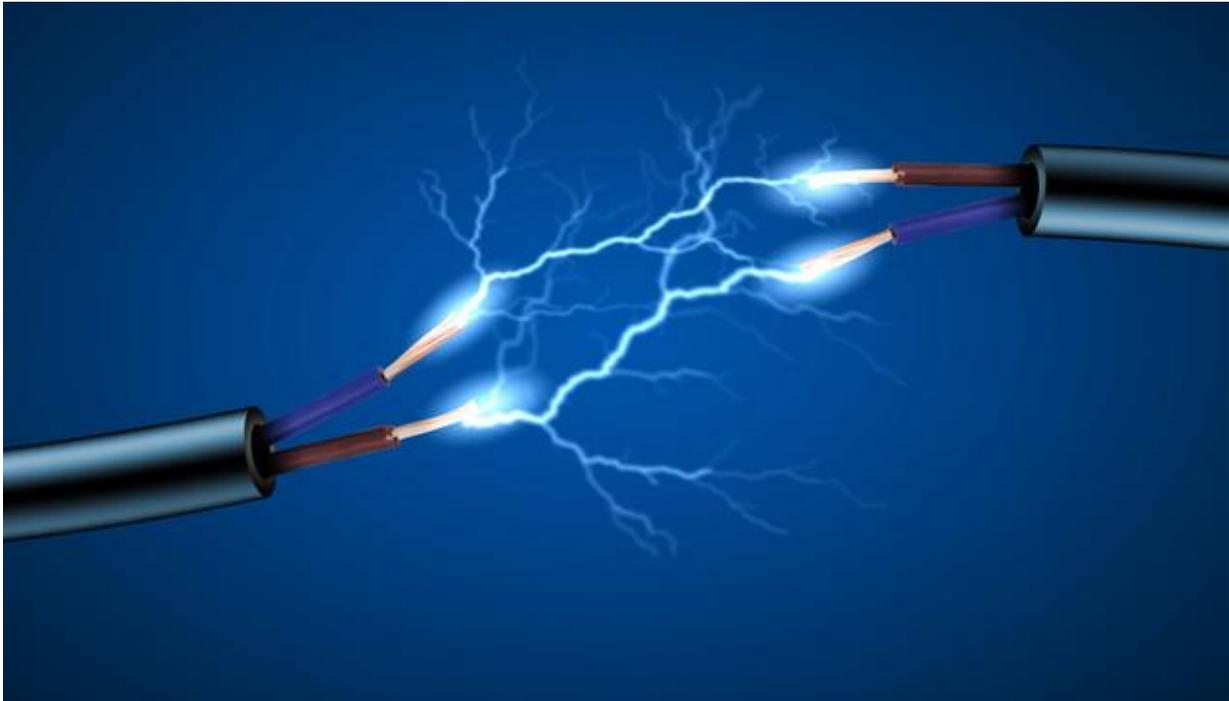
Complete Circuit

A connected pathway through which electricity can flow; includes a power source, load, and pathway



Conductor

Material that allows electricity to pass through easily



Current (Electricity)

Flow of electricity along a path



Incomplete Circuit

A circuit with a gap through which electricity cannot flow



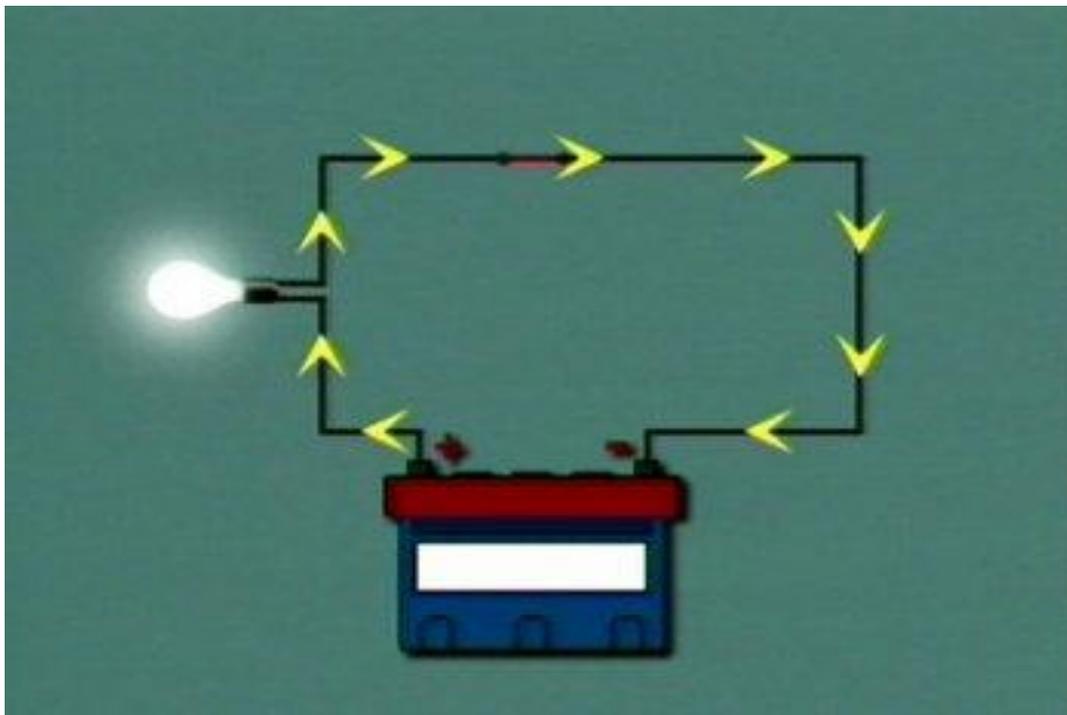
Insulator

Material that does not allow electricity to pass through



Load

An item that uses electricity to do work; for example, a light bulb or fan



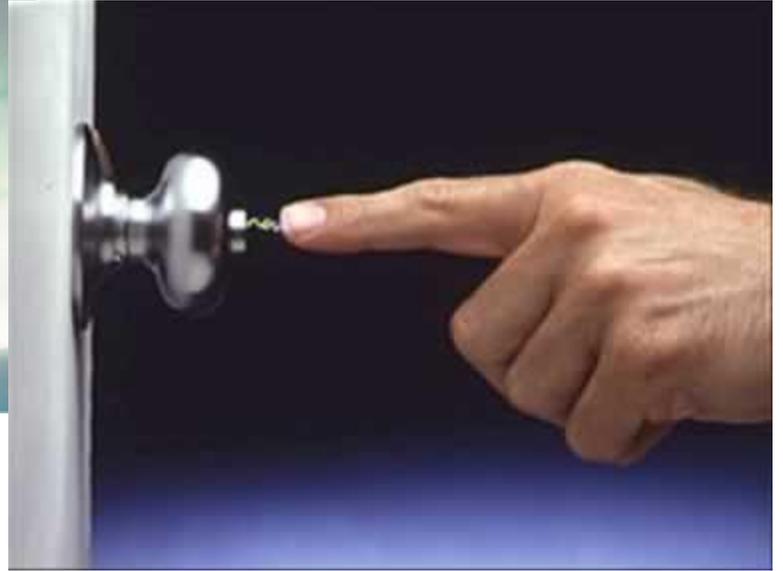
Pathway

A course through which electricity can flow



Power Source

A device that supplies electricity to a circuit; such as a battery, a solar cell, or a generator



Static Electricity

The collection of electrical energy (a charge) in one spot



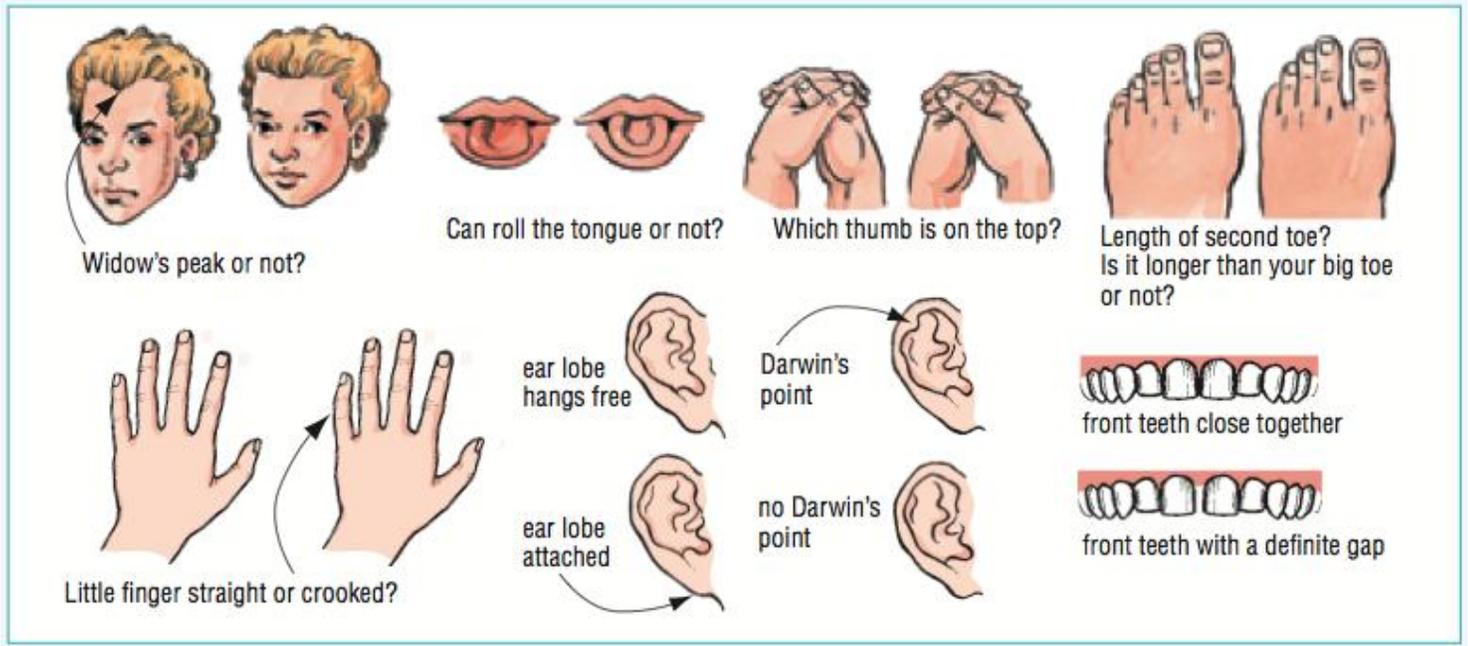
Switch

A device that immediately changes a circuit from complete to incomplete



Environment

The surroundings in which an organism lives



Inherited

A characteristic passed from parents to their young



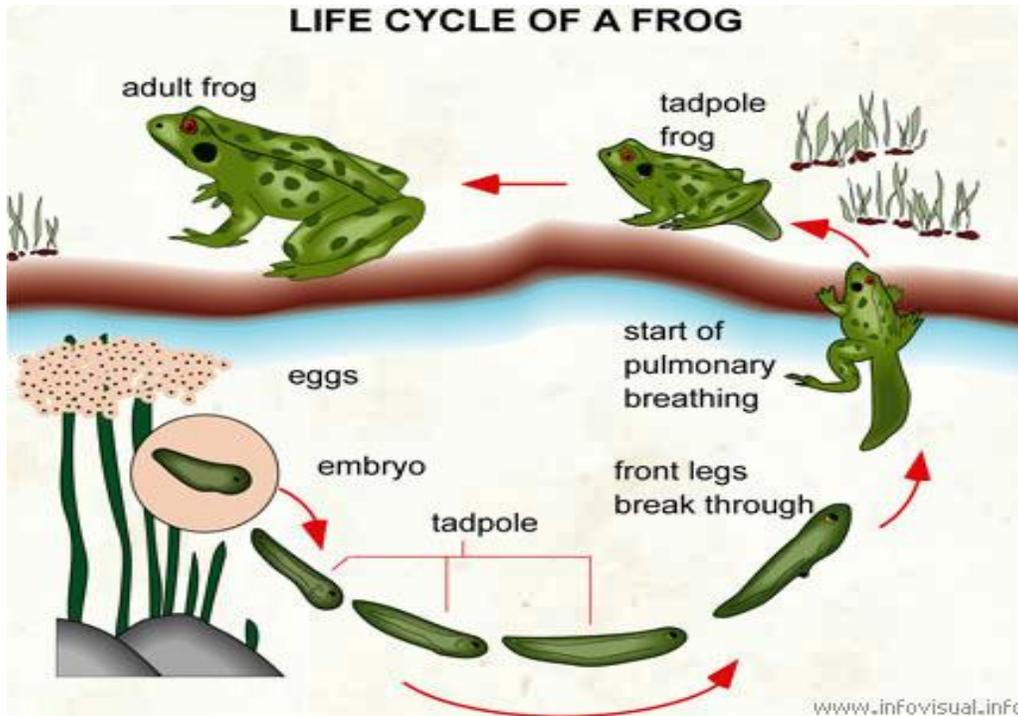
Instincts

Behaviors that are inherited from the parent organism



Learned Behavior

An action that is learned through trial and error or is brought about by the environment



Life Cycle

The stages a living organism will go through during its lifetime



Offspring

The young of an organism



Organism

Any living thing that can carry out its life activities on its own



Parent Organism

A producer of offspring



Population

The number and kind of organisms in an area



Specialized Structure

A body part unique to a species for survival in its environment



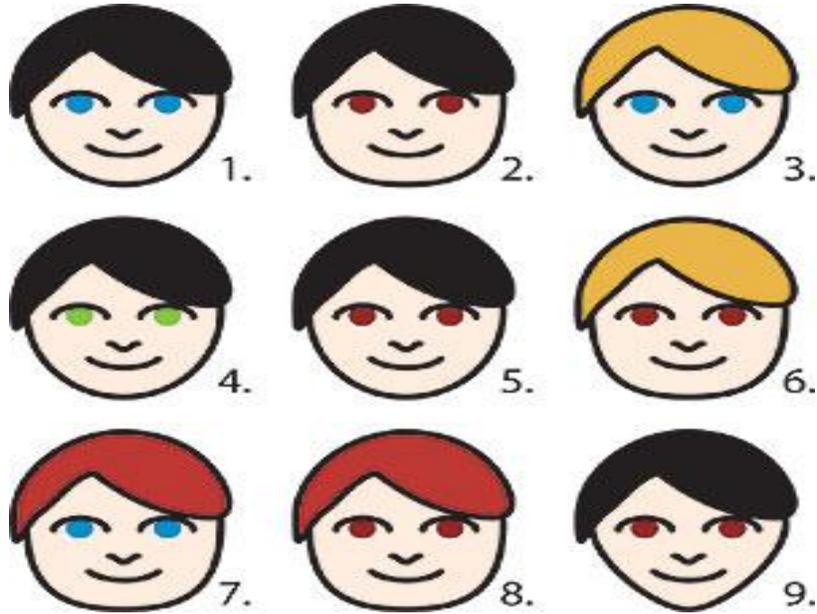
Species

A certain group of plants or animals that can only reproduce among themselves



Survival

The continuation of life



Traits

Characteristics that determine how an organism looks, acts,
or functions

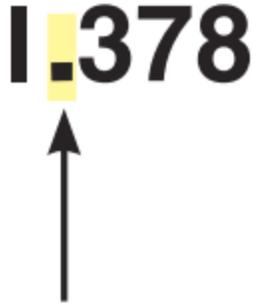


Variations

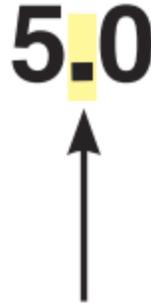
Differences in the appearance of an inherited trait among the members of a group (species)

decimal point

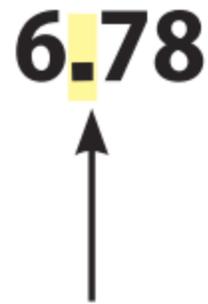
1.378

A diagram showing the number 1.378. A yellow square highlights the decimal point. A black arrow points upwards from below the decimal point to the yellow square.

5.0

A diagram showing the number 5.0. A yellow square highlights the decimal point. A black arrow points upwards from below the decimal point to the yellow square.

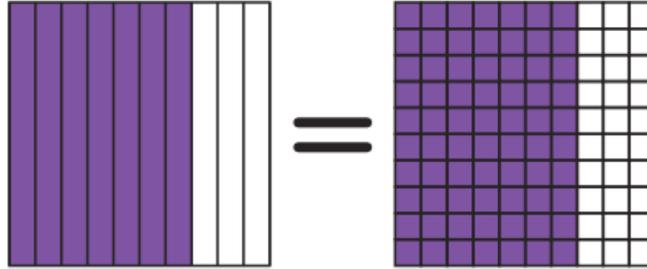
6.78

A diagram showing the number 6.78. A yellow square highlights the decimal point. A black arrow points upwards from below the decimal point to the yellow square.

Definition

A period separating the ones and the tenths in a decimal number.

equivalent decimals



$$\frac{7}{10} = \frac{70}{100}$$

$$0.7 = 0.70$$

Definition

Decimals that have the same value

period

Millions Period			Thousands Period			Ones Period		
Millions			Thousands			Ones		
hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	ones
6	5	0	0	8	4	9	7	0

Definition

The name given to each group of three digits in a place-value chart

standard form

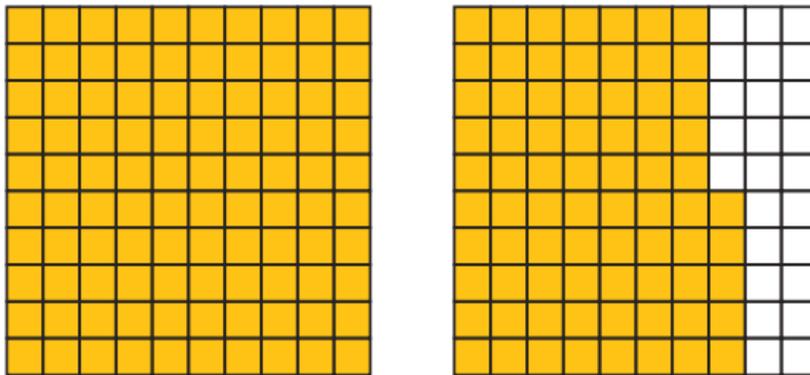
$$3,000 + 400 + 90 + 1 = \underbrace{3,491}_{\text{standard form}}$$

standard form

Definition

The usual way of writing a number that shows only its digits, no words

decimal



1.75

Definition

A number that has a digit in the tenths place, hundredths place,
and/or beyond

expanded form

$$\begin{aligned} 12,002,060 &= 1 \times 10,000,000 \\ &+ 2 \times 1,000,000 + 2 \times 1,000 \\ &+ 6 \times 10 \end{aligned}$$

Definition

A way of writing a number as the sum of the values of its digits

place

Millions Period			Thousands Period			Ones Period		
Millions			Thousands			Ones		
hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	ones
6	5	0	0	8	4	9	7	0

Definition

The position of a digit in a number

place value

Millions Period			Thousands Period			Ones Period		
Millions			Thousands			Ones		
hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	ones
	5	0	0	8	0	0	0	0

5 = ten millions

8 = ten thousands

Definition

The value given to a digit by its place in a number

place-value chart

Millions Period			Thousands Period			Ones Period		
Millions			Thousands			Ones		
hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	ones
6	5	0	0	8	4	9	7	0

Definition

A chart showing the value of each number in a multi-digit whole number

base

$$3^3 = 3 \times 3 \times 3 = 27$$

$$5^4 = 5 \times 5 \times 5 \times 5 = 625$$

Definition

In a power, the number used as a factor

cubed

$$3^3 = 3 \times 3 \times 3 = 27$$

Definition

A number raised to the third power

exponent

$$5^4 = 5 \times 5 \times 5 \times 5 = 625$$

Definition

In a power, the number of times the base is used as a factor

power of 10

$$\begin{aligned}10^4 &= 10 \times 10 \times 10 \times 10 \\ &= 10,000\end{aligned}$$

Definition

A number like 10, 100, 1,000 and so on, it is the result of using only 10 as a factor

compatible numbers

$$42 \times 7 = 294$$

$$\underbrace{40 \times 7 = 280}$$

compatible numbers

Definition

Numbers in a problem that are easy to work with mentally

Distributive Property

$$4 \times (2 + 7) = (4 \times 2) + (4 \times 7)$$

Definition

To multiply a sum by a number, multiply each addend by the number, and add the products

power

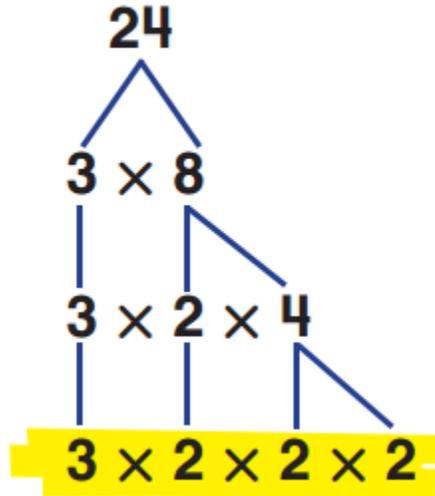
$$3^4 = 3 \times 3 \times 3 \times 3 = 81$$

81 is a power of 3.

Definition

A number obtained by raising a base number to an exponent

prime factorization



Definition

A way of expressing a composite number as a product of its prime factors

property

Commutative Property $25 \times 47 = 47 \times 25$

Identity Property $25 \times 0 = 0$

Distributive Property $5 \times (2 + 7) =$
 $(5 \times 2) + (5 \times 7)$

Definition

A rule in mathematics that can be applied to all numbers

squared

$$25^2 = 25 \times 25 = 625$$

Definition

A number raised to the second power

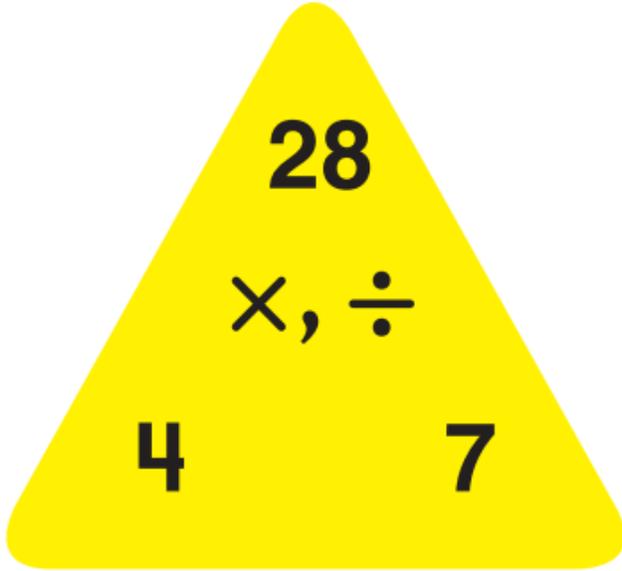
dividend

$$76 \div 4 = 19$$

Definition

A number that is being divided

fact family



$$4 \times 7 = 28$$

$$7 \times 4 = 28$$

$$28 \div 7 = 4$$

$$28 \div 4 = 7$$

Definition

A group of related facts that use the same numbers

quotient

$$76 \div 4 = 19$$

Definition

The result of a division problem

unknown

$$42 \div 6 = \blacksquare$$

$$6 \times 7 = 42$$

$$42 \div 6 = 7$$

Definition

A missing value

divisor

$$76 \div 4 = 19$$

Definition

The number that divides the dividend

partial quotients

$$\begin{array}{r} 8 \overline{) 536} \\ - 480 \\ \hline 56 \\ - 56 \\ \hline 0 \end{array} \quad \begin{array}{r} 60 \\ + 7 \\ \hline 67 \end{array}$$

Definition

A dividing method in which the dividend is separated into addends that are easy to divide

remainder

$$\begin{array}{r} 79 \text{ R}3 \\ 4 \overline{) 319} \\ \underline{-28} \\ 39 \\ \underline{-36} \\ 3 \end{array}$$

Definition

The number that is left after one whole number is divided by another

variable

$$4 \times k = 32$$

Definition

A letter or symbol used to represent an unknown quantity

Associative Property of Addition

$$(15.19 + 25.05) + 88 = 15.19 + (25.05 + 88)$$

Definition

The way in which numbers are grouped does not change the sum

Identity Property of Addition

$$12.7 + 0 = 12.7$$

Definition

The sum of any number and 0 equals the number

Commutative Property of Addition

$$15.9 + 8.42 = 8.42 + 15.9$$

Definition

The order in which numbers are added does not change the sum

inverse operations

$$1.73 - 0.87 = 0.86$$

$$0.87 + 0.86 = 1.73$$

Definition

Operations that undo each other

Associative Property of Multiplication

$$(8 \times 7) \times 10 = 8 \times (7 \times 10)$$

Definition

The way in which factors are grouped does not change the product

Identity Property of Multiplication

$$42.08 \times 1 = 42.08$$

Definition

The product of any factor and 1 equals the factor

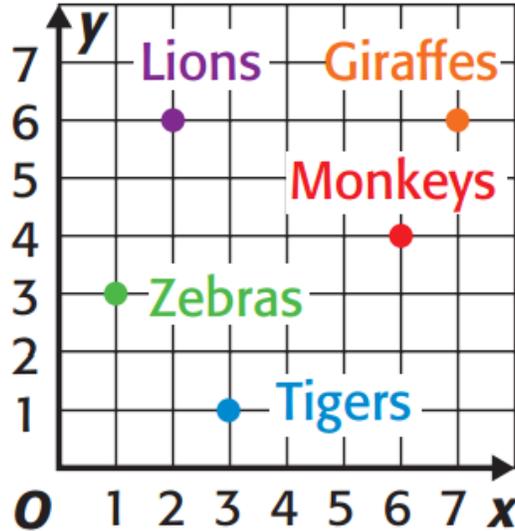
Commutative Property of Multiplication

$$8.92 \times 455 = 455 \times 8.92$$

Definition

The order in which factors are multiplied does not change the product

coordinate plane



Definition

A plane that is formed when two number lines intersect at a right angle

numerical expression

$$25 \div 5 - 3$$

$$15 + 7 - 8$$

Definition

A combination of numbers and at least one operation, such as $9-4$

order of operations

$$[20 + 2 \times (7 - 5)] - 8$$

$$[20 + 2 \times 2] - 8$$

$$[20 + 4] - 8$$

$$24 - 8 = 16$$

Definition

The order in which operations on numbers should be done: parentheses, exponents, multiply and divide, add and subtract

sequence


2, 4, 6, 8, . . .

Definition

A list of numbers that follows a specific pattern

evaluate

$$5 + 7 = 12$$

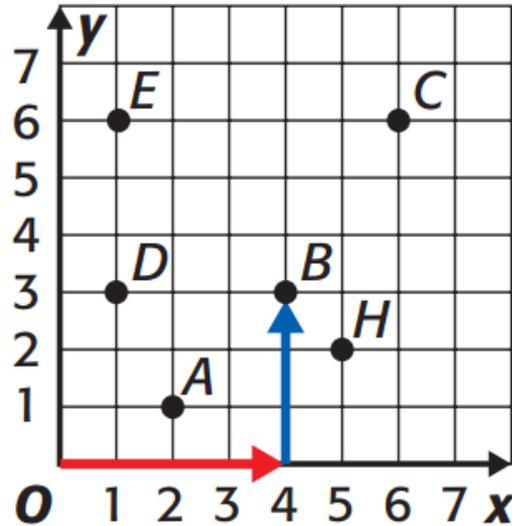
$$15 - 10 = 5$$

Definition

To find the value of a numerical expression by completing each operation

ordered pair

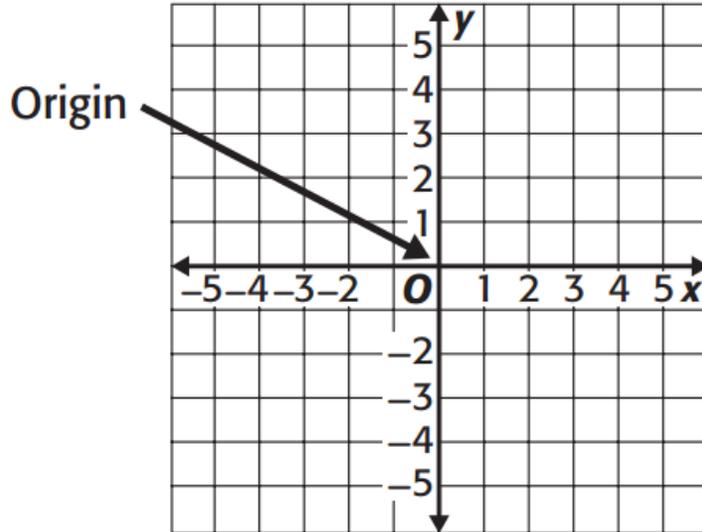
(4, 3)



Definition

A pair of numbers that is used to name a point on a coordinate plane

origin



Definition

The point on a coordinate plane where the vertical axis meets the horizontal axis

term

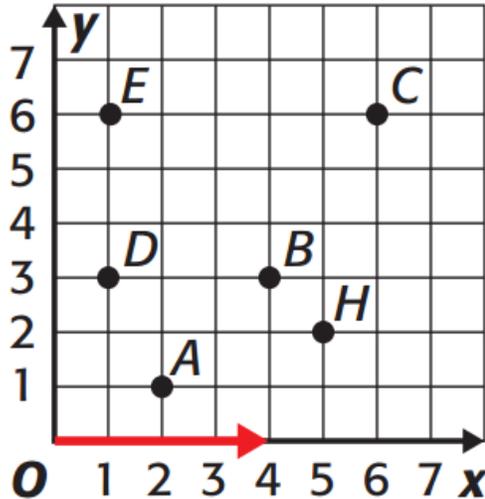
 **2**, 4, 6, 8, . . .

Definition

A number in a pattern or sequence

x-coordinate

(4, 3)

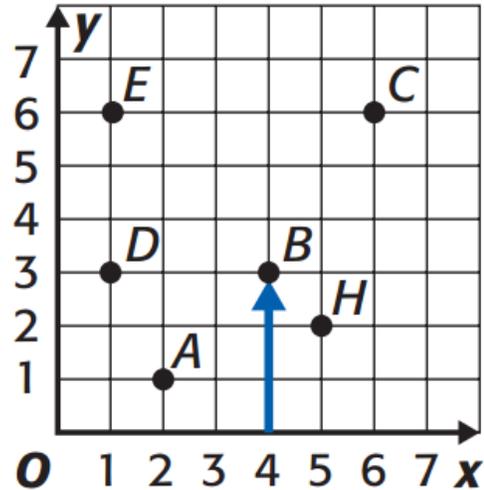


Definition

The first part of an ordered pair that shows how far away from the y-axis the point is

y-coordinate

(4, 3)



Definition

The second part of an ordered pair that shows how far away from the x-axis the point is

common factor

12: 1, 2, 3, 4, 6, 12

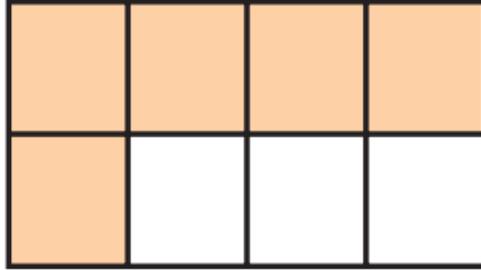
30: 1, 2, 3, 5, 6, 10, 15, 30

common factors of 12 and 30: 1, 2, 3, 6

Definition

A number that is a factor of two or more numbers

denominator



$$\frac{5}{8} = 5 \div 8$$

Definition

The bottom number in a fraction. It represents the total number of equal parts

fraction



$\frac{2}{3}$

Definition

A number that represents equal parts of a whole or parts of a set

least common denominator (LCD)

$$\left. \begin{array}{l} \frac{2}{3} = \frac{2 \times 2}{3 \times 2} = \frac{4}{6} \\ \frac{1}{6} = \frac{1 \times 1}{6 \times 1} = \frac{1}{6} \end{array} \right\} \mathbf{6 \text{ is the LCD}}$$

Definition

The least common multiple of the denominators of two fractions

common multiple

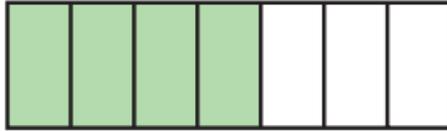
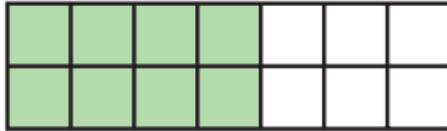
4: 4, 8, 12, 16, 20, 24, 28, 32, 36 . . .
6: 6, 12, 18, 24, 30, 36, 42 . . .

common multiples of 4 and 6: 12, 24, 36

Definition

A whole number that is a multiple of two or more numbers

equivalent fractions



$$\frac{8}{14} = \frac{4}{7}$$

Definition

Fractions that have the same value

greatest common factor (GCF)

12: 1, 2, 3, 4, 6, 12

30: 1, 2, 3, 5, 6, 10, 15, 30

greatest common factor: 6

Definition

The greatest of the common factors of two or more numbers

least common multiple (LCM)

4: 4, 8, **12**, 16, 20, **24**, 28, 32, **36** . . .
6: 6, **12**, 18, **24**, 30, **36**, 42 . . .

least common multiple of 4 and 6: 12

Definition

The least multiple, other than 0, common to sets of multiples

multiple

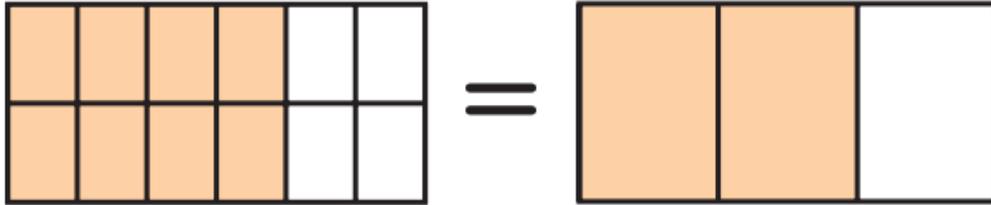
$$\begin{array}{ccc} 7, & 14, & 21, \\ 1 \times 7 & 2 \times 7 & 3 \times 7 \end{array}$$

$$\begin{array}{ccc} 28, & 35, & 42, \dots \\ 4 \times 7 & 5 \times 7 & 6 \times 7 \end{array}$$

Definition

A multiple of a number is the product of that number and any whole number

simplest form

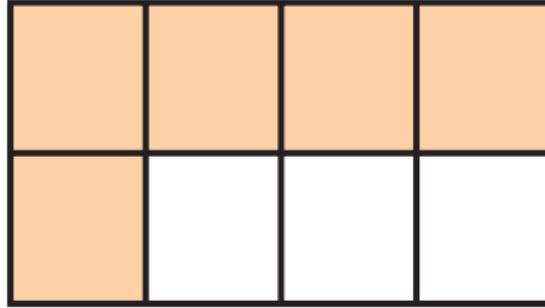


$$\frac{8 \div 4}{12 \div 4} = \frac{2}{3}$$

Definition

A fraction in which the GCF of the numerator and the denominator is 1

numerator

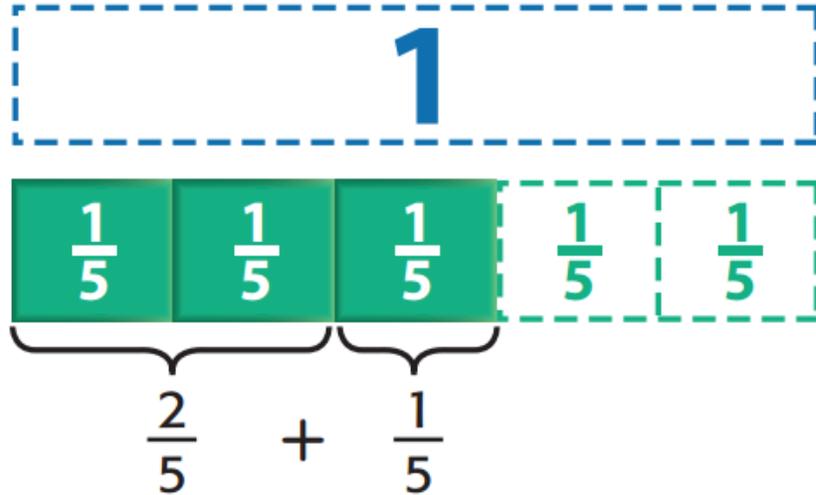


$$\frac{5}{8} = 5 \div 8$$

Definition

The top number in a fraction. It tells how many of the equal parts are being used

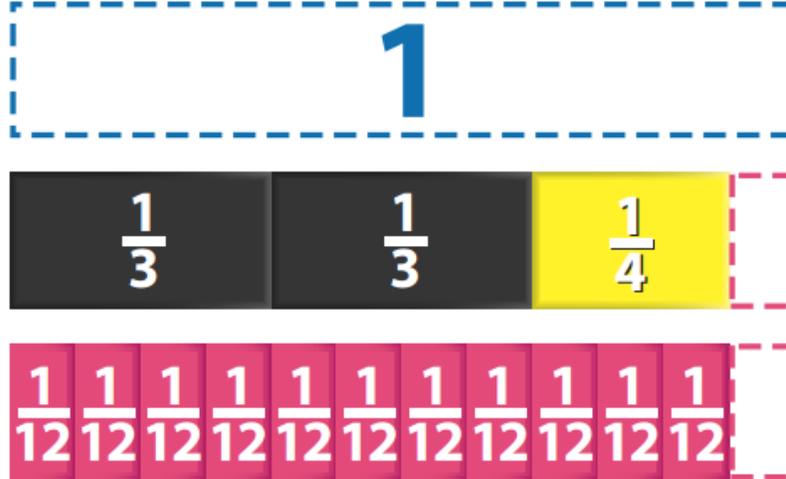
like fractions



Definition

Fractions that have the same denominator

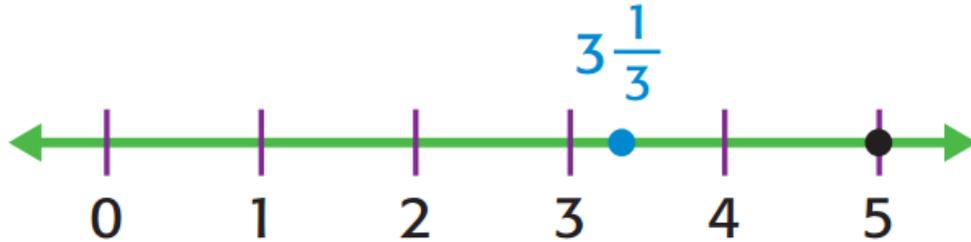
unlike fractions



Definition

Fractions that have different denominators

scaling



$$5 \times \frac{2}{3} = 3\frac{1}{3}$$

Definition

The process of resizing a number when it is multiplied by a fraction that is greater than or less than 1

unit fraction



Definition

A fraction with a numerator of 1

capacity



Definition

The amount a container can hold

convert

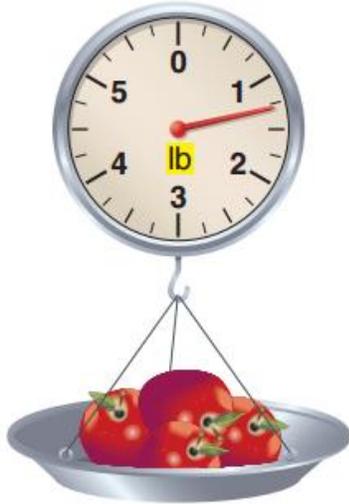


4 quarts = 1 gallon

Definition

To change from one unit of measurement to another

customary system



Definition

The units of measurement most often used in the United States, such as the inch, yard, and mile

fluid ounce (fl oz)

8 fluid ounces

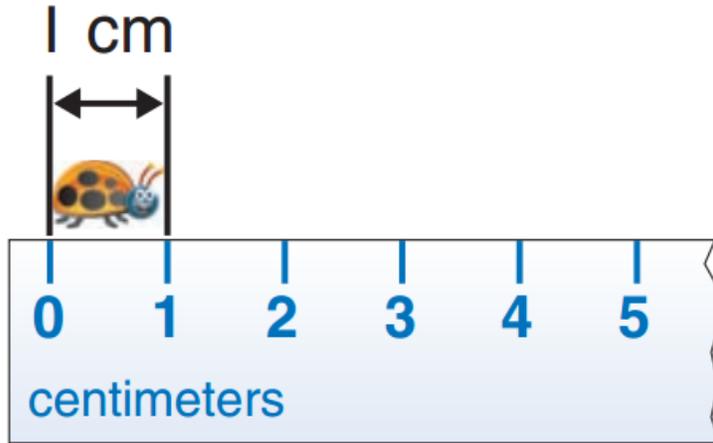


Definition

A customary unit of capacity

8 fluid ounces = 1 cup

centimeter (cm)



Definition

A metric unit for measuring length.

100 centimeters = 1 meter

cup (c)

1 cup



Definition

A customary unit of capacity

1 cup = 8 fluid ounces

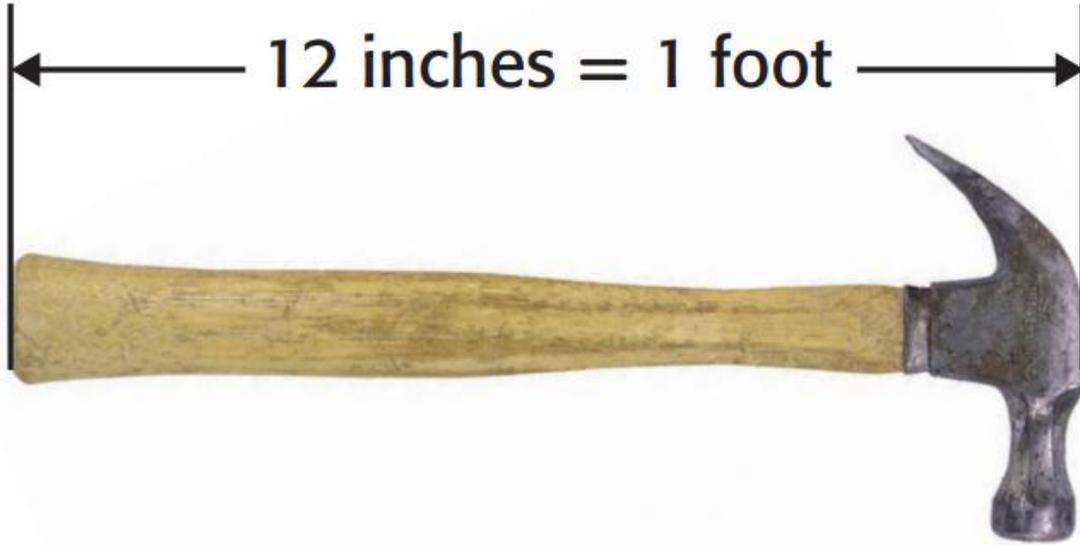
fair share



Definition

An amount divided equally

foot (ft)



Definition

A customary unit for measuring length that is equal to 12 inches

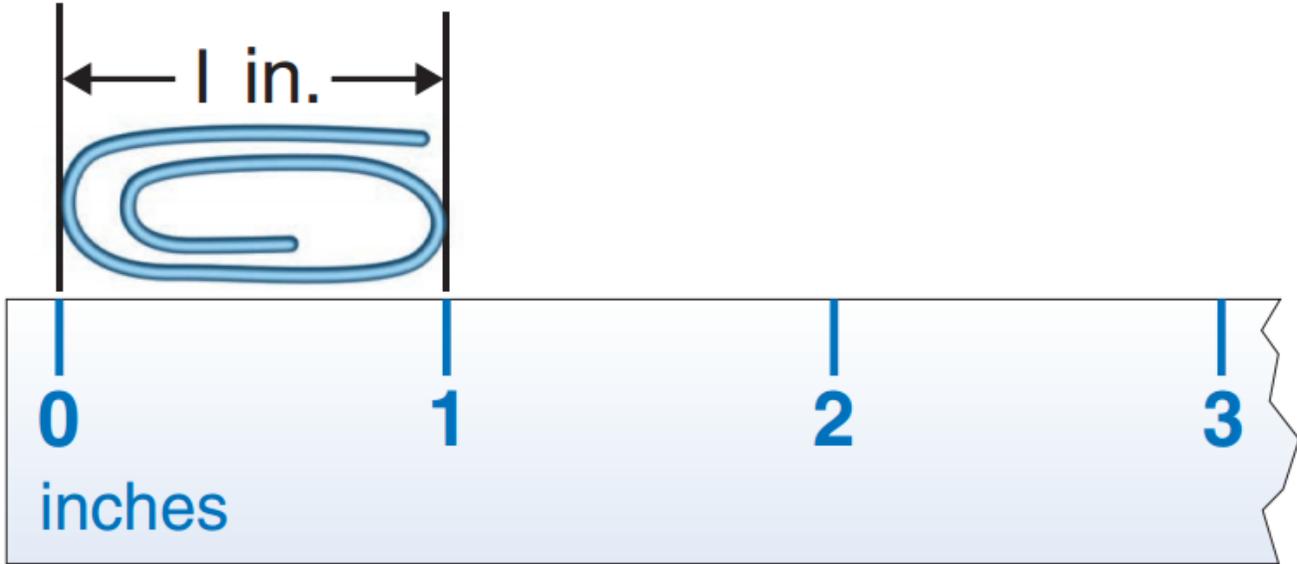
gallon (gal)



Definition

A customary unit for measuring capacity. 1 gallon = 4 quarts

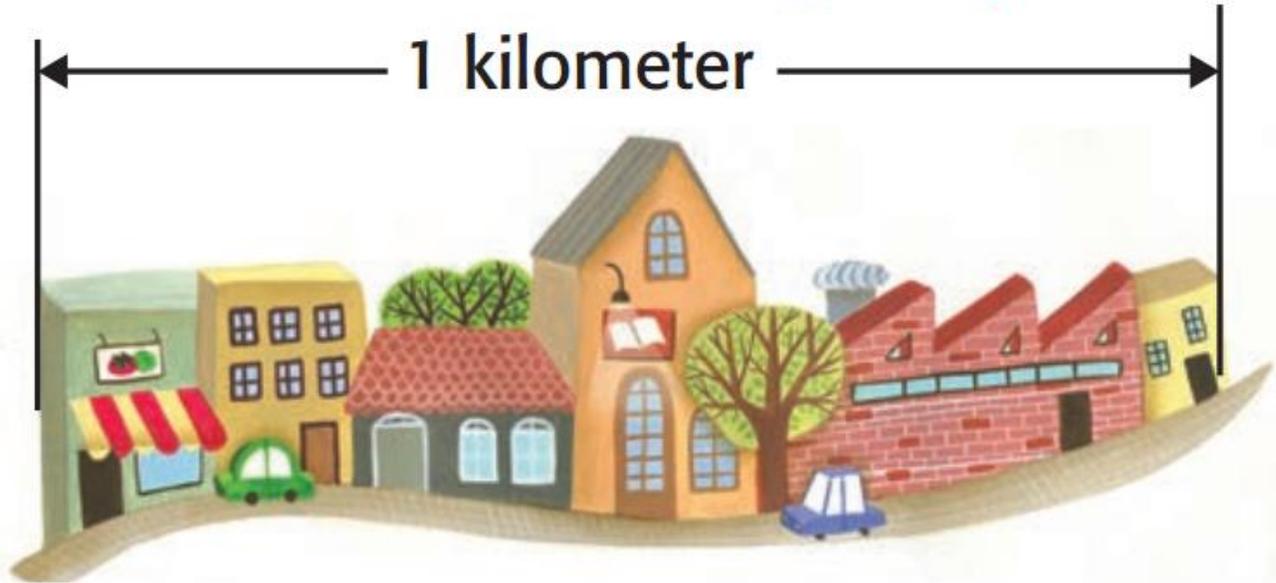
inch (in.)



Definition

A customary unit for measuring length

kilometer (km)



Definition

A metric unit for measuring longer distances of length

liter (L)

1 liter



5 liters



Definition

A metric unit for measuring volume or capacity. 1 liter = 1,000 milliliters

gram (g)



5 grams

Definition

A metric unit for measuring mass. 1 gram = 1,000 milligrams

kilogram (kg)

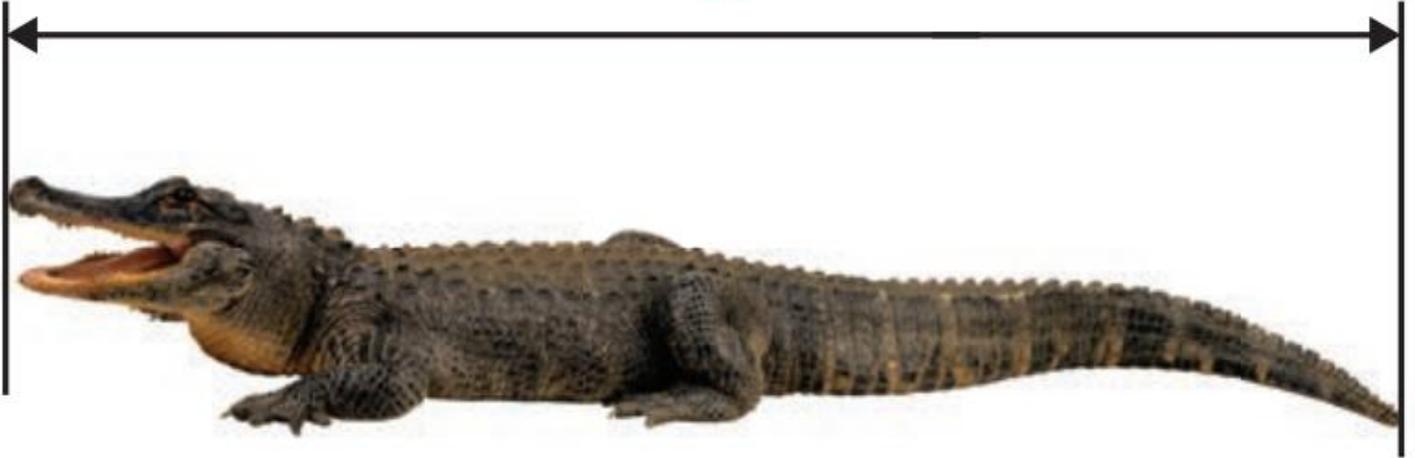


50 kilograms

Definition

A metric unit for measuring mass. 1 kilogram = 1,000 grams

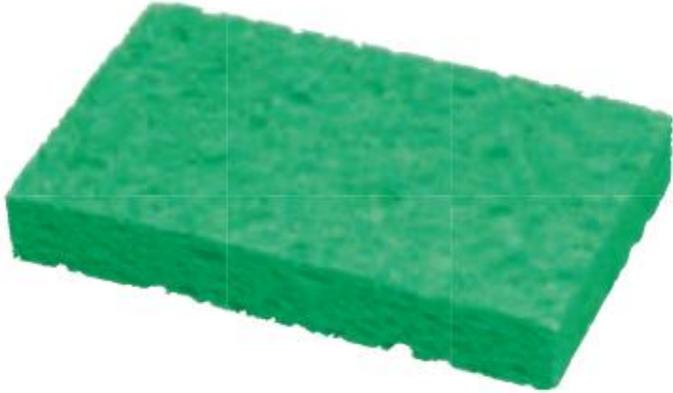
length



Definition

Distance measured between two points

mass



less mass

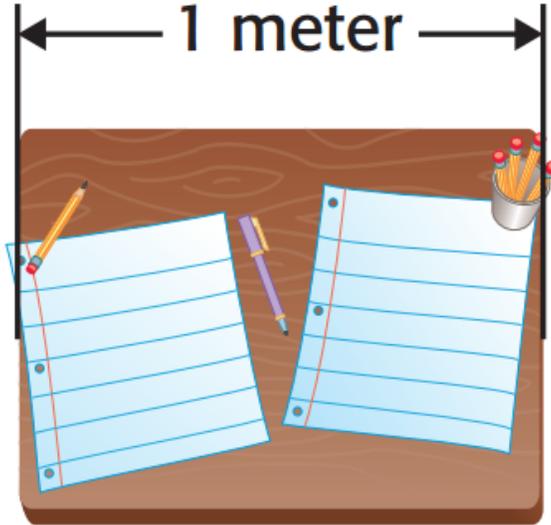


more mass

Definition

The amount of matter in an object

meter (m)



Definition

A metric unit used to measure length. 1 meter= 100 centimeters

mile (mi)



Definition

A customary unit for measuring length equal to 5,280 feet.

milliliter (mL)

250 milliliters



Definition

A metric unit used for measuring capacity. 1,000 milliliters = 1 liter

ounce (oz)

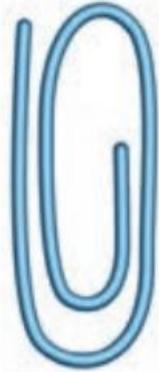


3 ounces

Definition

A customary unit for measuring weight. 16 ounces = 1 pound

metric system



1 gram

1 liter



Definition

A decimal system of measurement. Includes units such as meter, gram, and liter.

milligram (mg)

1 milligram



Definition

A metric unit for measuring mass. 1,000 milligrams = 1 gram

millimeter (mm)

1 millimeter



Definition

A metric unit used for measuring length. 1,000 millimeters = 1 meter

pint (pt)

1 pint



Definition

A customary unit for measuring capacity. 1 pint = 2 cups

pound (lb)



150 pounds

Definition

A customary unit for measuring weight. 1 pound = 16 ounces.

ton (T)

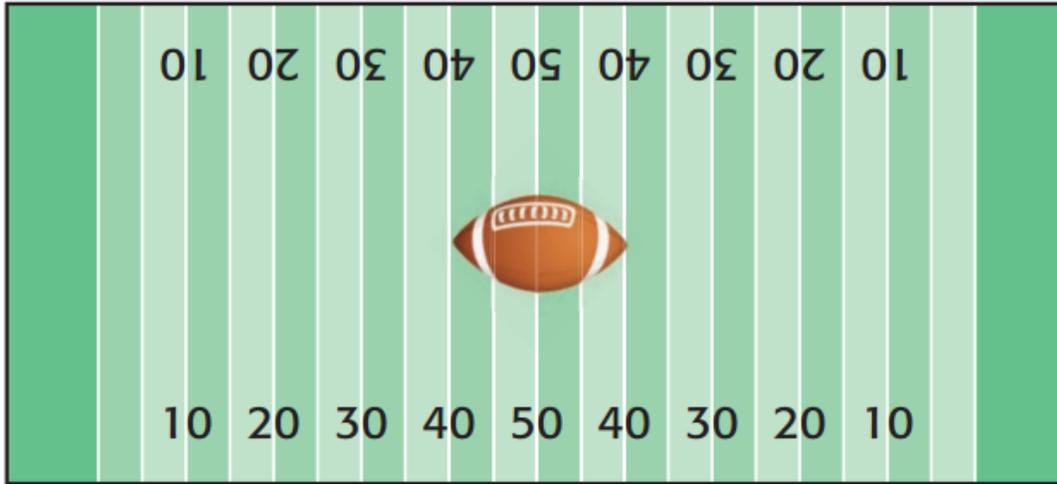
33 tons



Definition

A customary unit for measuring weight. 1 ton = 2,000 pounds

yard (yd)



100 yards

Definition

A customary unit for measuring length that is equal to 3 feet.

quart (qt)



Definition

A customary unit for measuring capacity. 1 quart = 2 pints

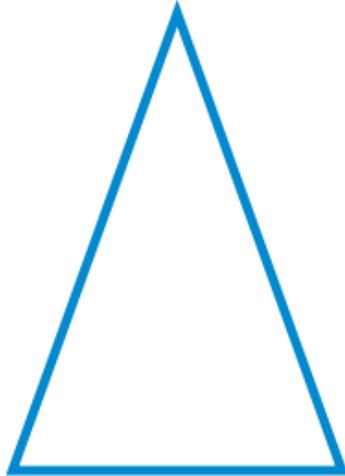
weight



Definition

A measurement that tells how heavy an object is

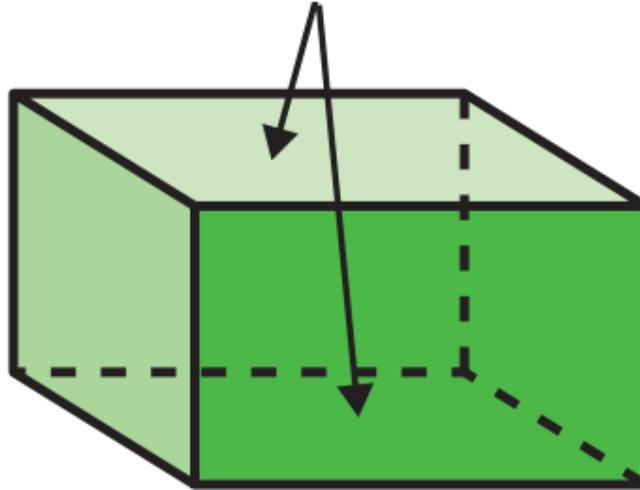
acute triangle



Definition

A triangle with 3 acute angles

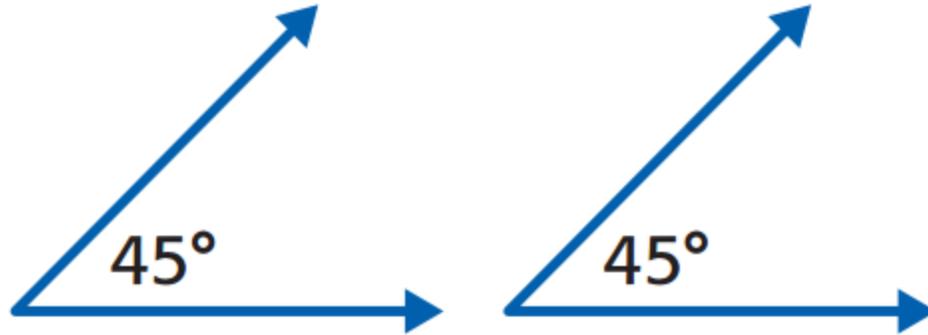
bases



Definition

Two parallel congruent faces in a prism

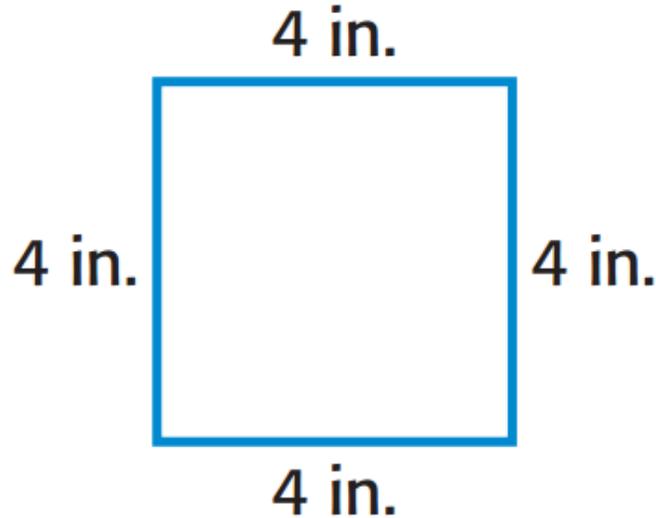
congruent angles



Definition

Angles of a figure that are equal in measure

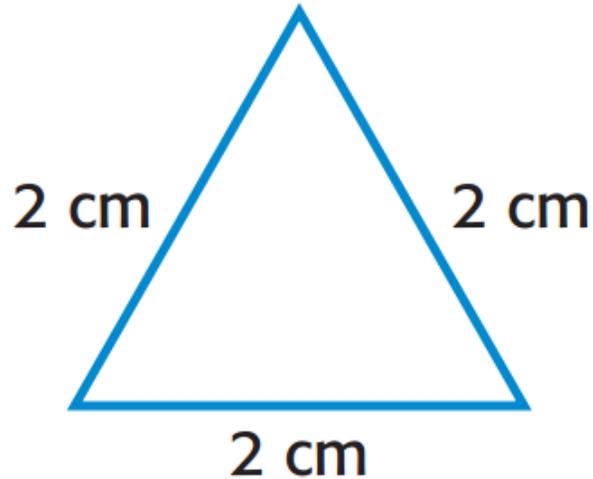
congruent sides



Definition

Sides of a figure that are equal in length

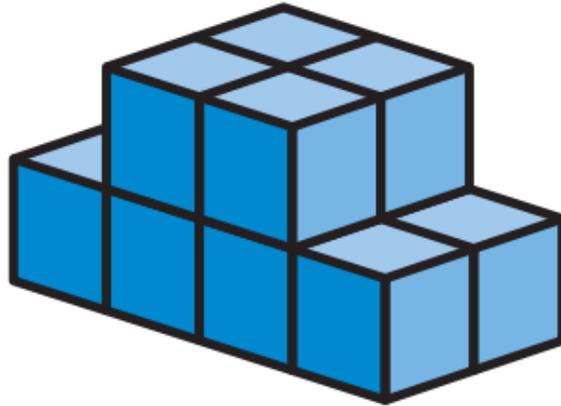
attribute



Definition

A characteristic of a figure

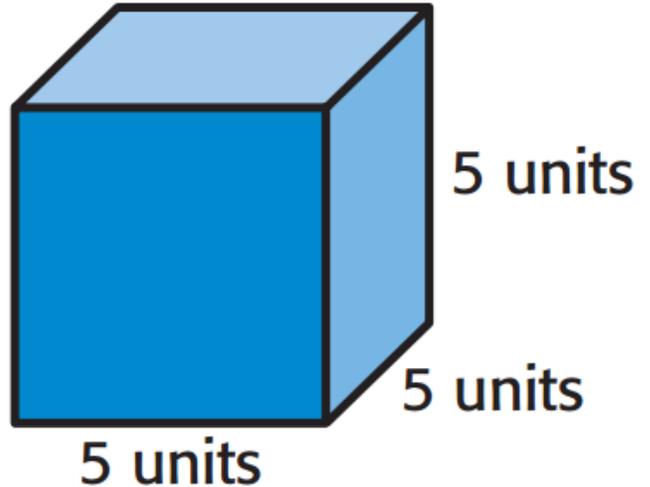
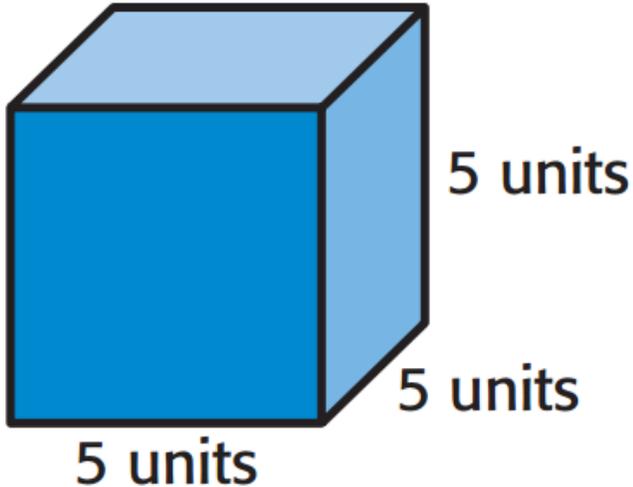
composite figures



Definition

A figure that is made of two or more three-dimensional figures

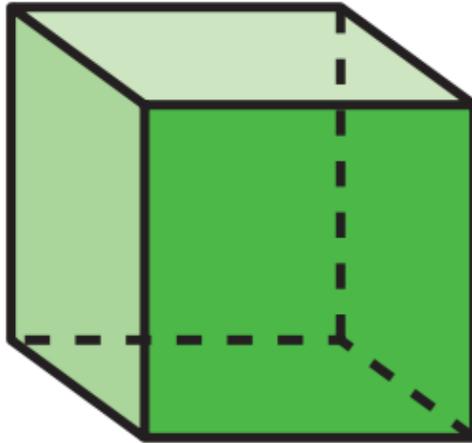
congruent figures



Definition

Two figures that have the same size and shape

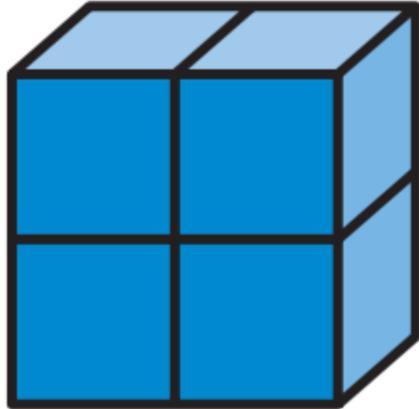
cube



Definition

A three-dimensional figure with six faces that are congruent squares

cubic unit

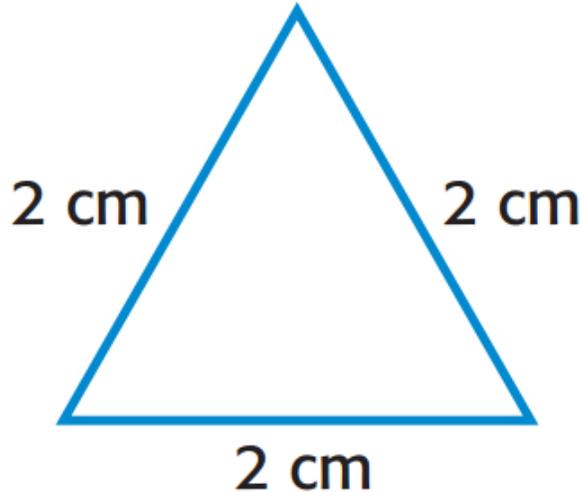


4 cubic units

Definition

The unit of measure for volume

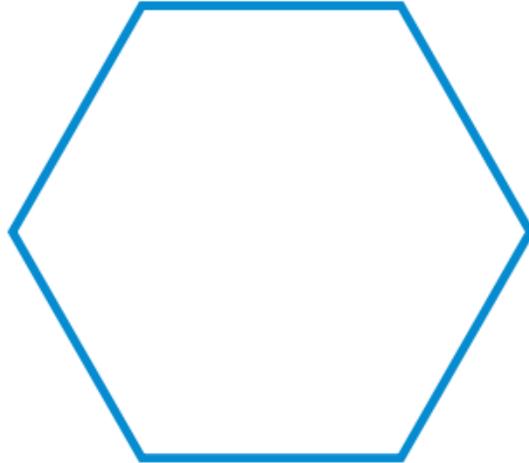
equilateral triangle



Definition

A triangle with three congruent sides

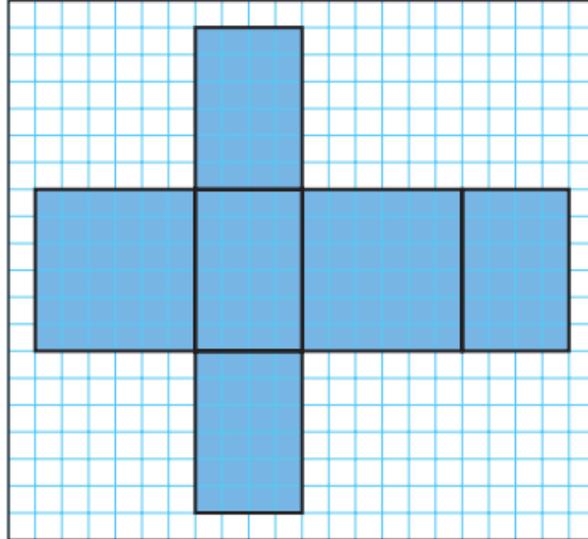
hexagon



Definition

A polygon with six sides and six angles

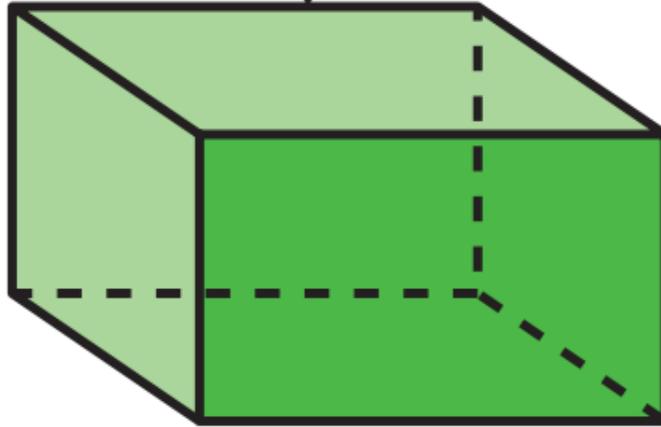
net



Definition

A two-dimensional pattern of a three-dimensional figure

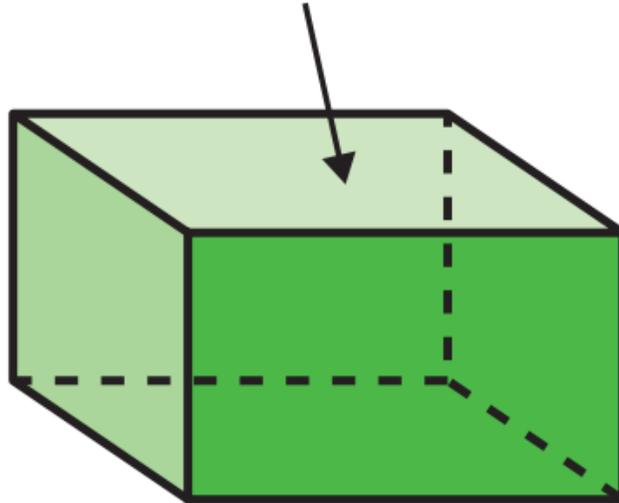
edge



Definition

The line segment where two faces of a three- dimensional figure meet

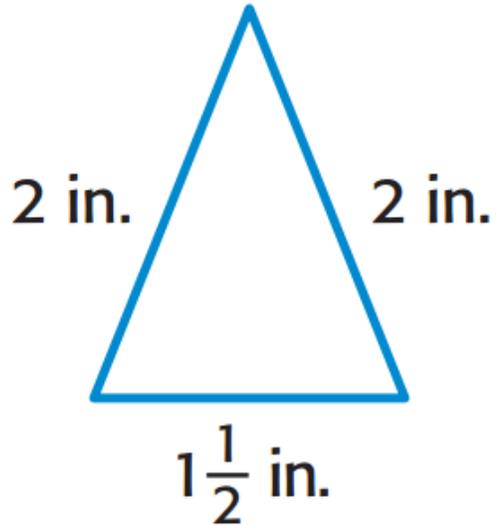
face



Definition

A flat surface

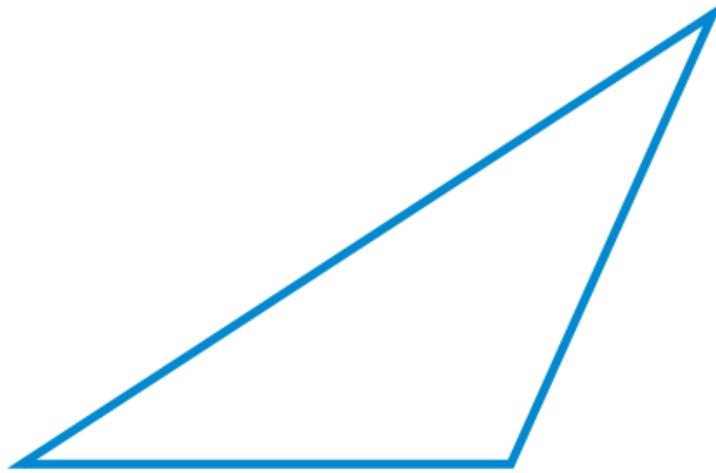
isosceles triangle



Definition

A triangle with at least two congruent sides

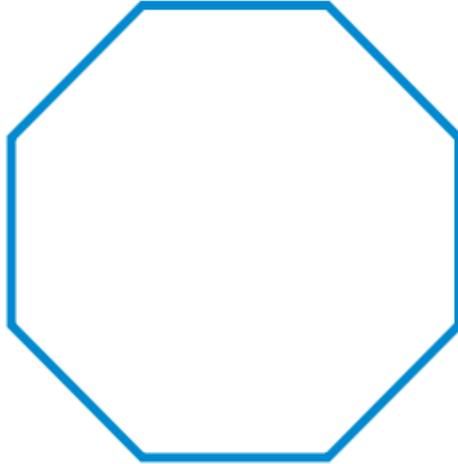
obtuse triangle



Definition

A triangle with 1 obtuse angle and 2 acute angles

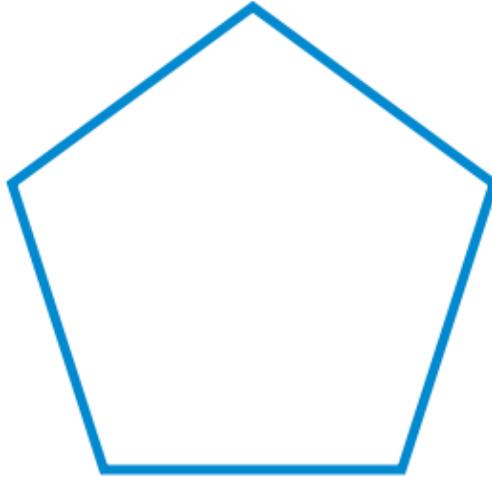
octagon



Definition

A polygon with eight sides

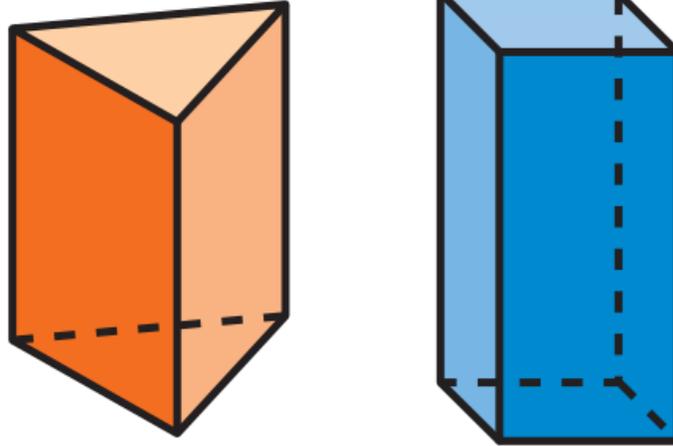
pentagon



Definition

A polygon with five sides

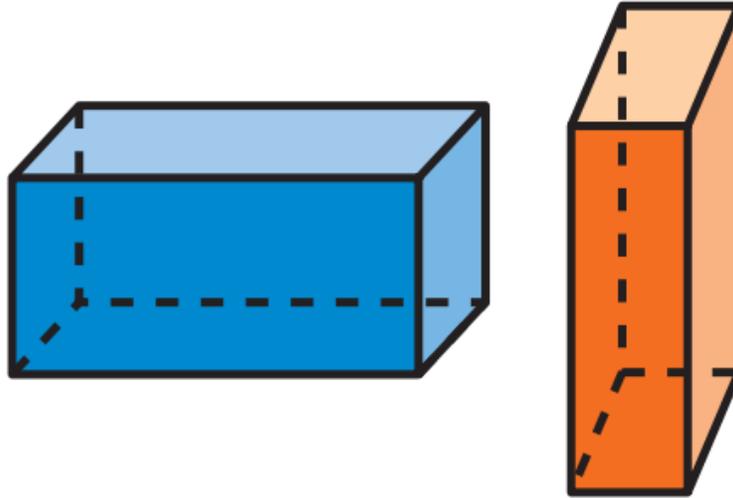
prism



Definition

A three-dimensional figure with two parallel, congruent faces, called bases. At least three faces are rectangles

rectangular prism



Definition

A prism that has rectangular bases

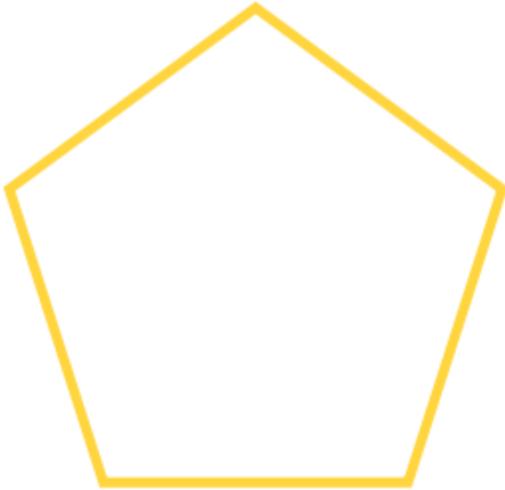
parallelogram



Definition

A quadrilateral in which each pair of opposite sides is parallel and congruent

polygon



Definition

A closed figure made up of line segments that do not cross each other

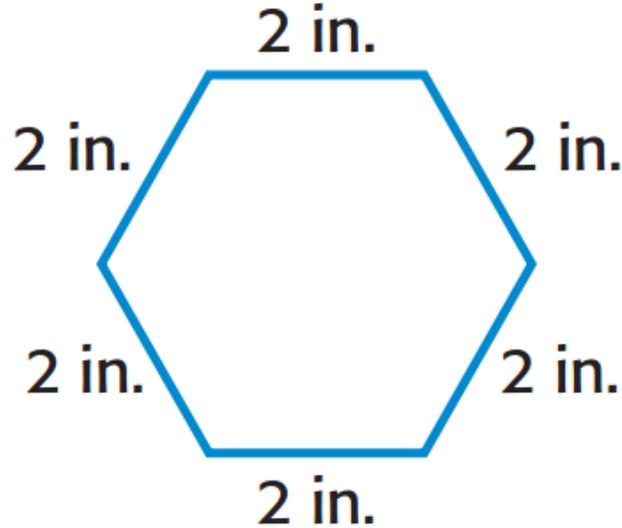
rectangle



Definition

A quadrilateral with four right angles; opposite sides are equal and parallel

regular polygon



Definition

A polygon in which all sides and angles are congruent

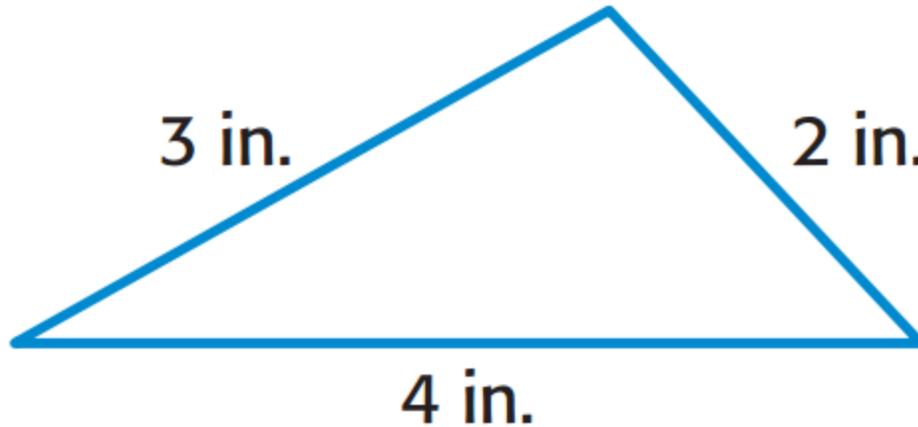
rhombus



Definition

A parallelogram with four congruent sides

scalene triangle



Definition

A triangle with no congruent sides

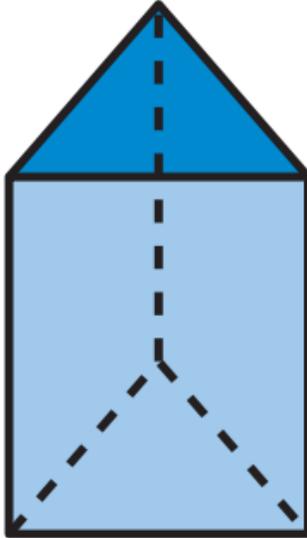
three-dimensional figure



Definition

A figure that has length, width, and height

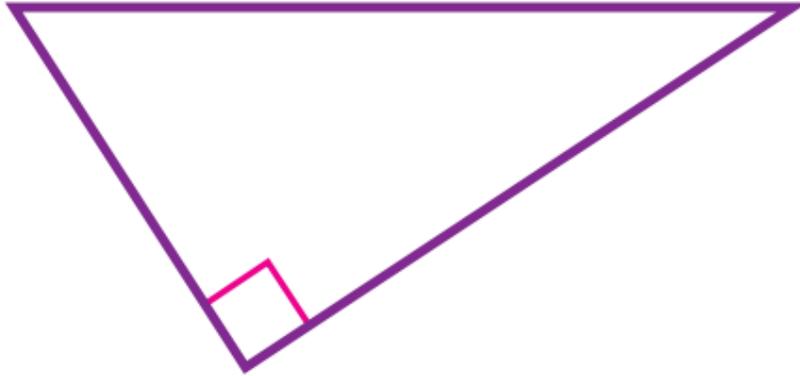
triangular prism



Definition

A prism that has triangular bases

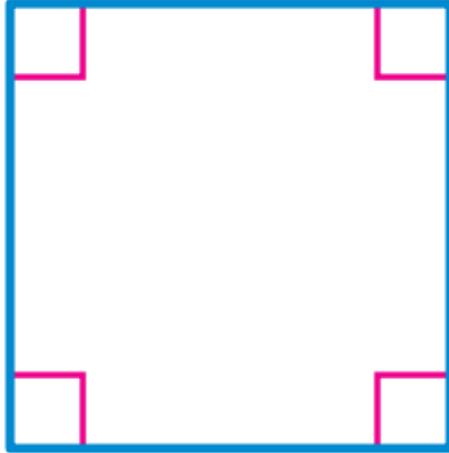
right triangle



Definition

A triangle with 1 right angle and 2 acute angles

square



Definition

A parallelogram with four congruent sides and four right angles

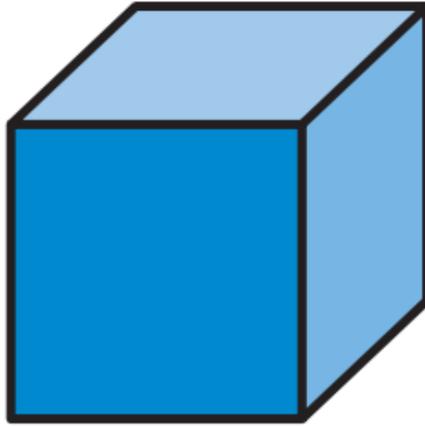
trapezoid



Definition

A quadrilateral with exactly one pair of opposite sides parallel

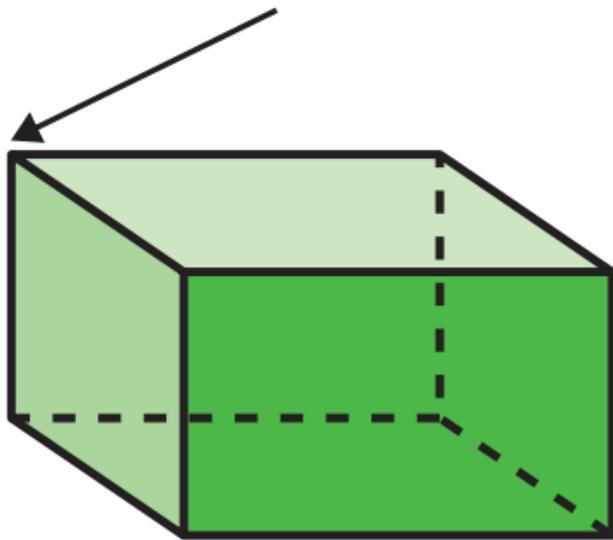
unit cube



Definition

A cube with a side length of one unit

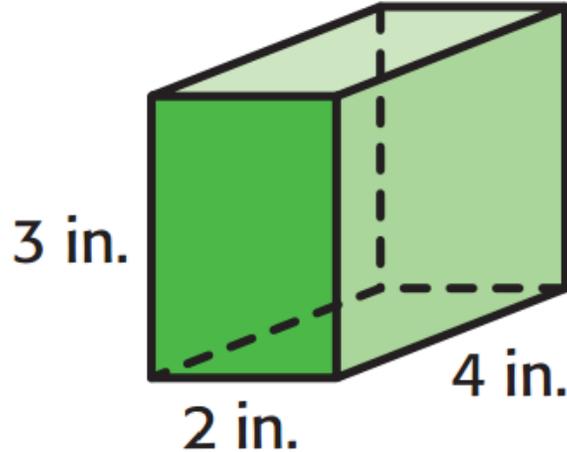
vertex



Definition

The point where three or more faces meet on a three-dimensional figure

volume



$$V = \ell wh$$

Definition

The amount of space inside a three-dimensional figure