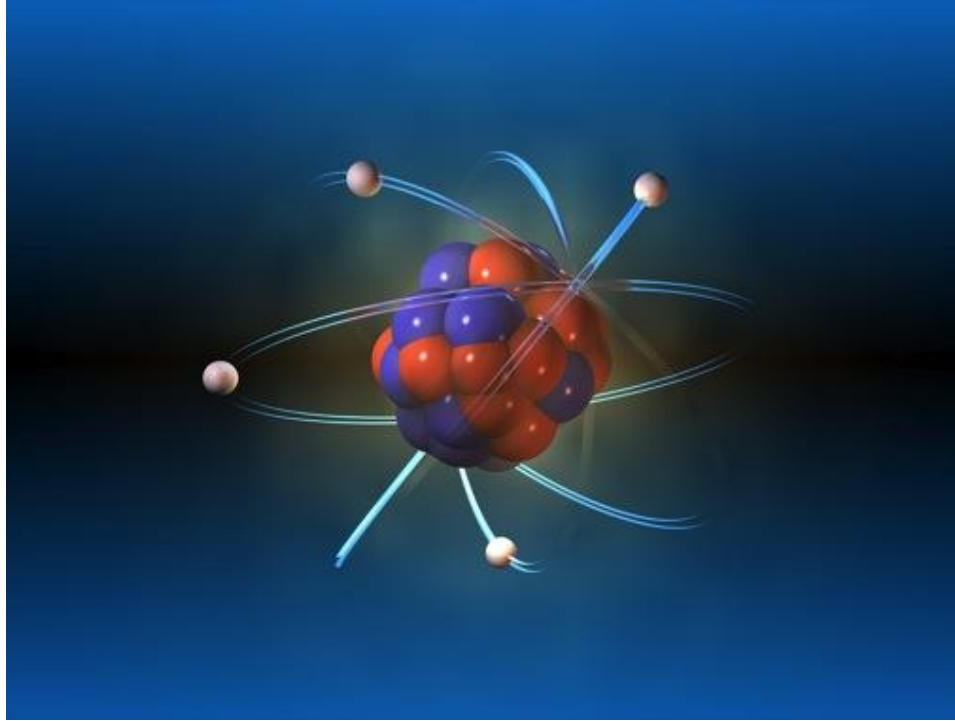


# Elements and Compounds

## Picture Vocabulary

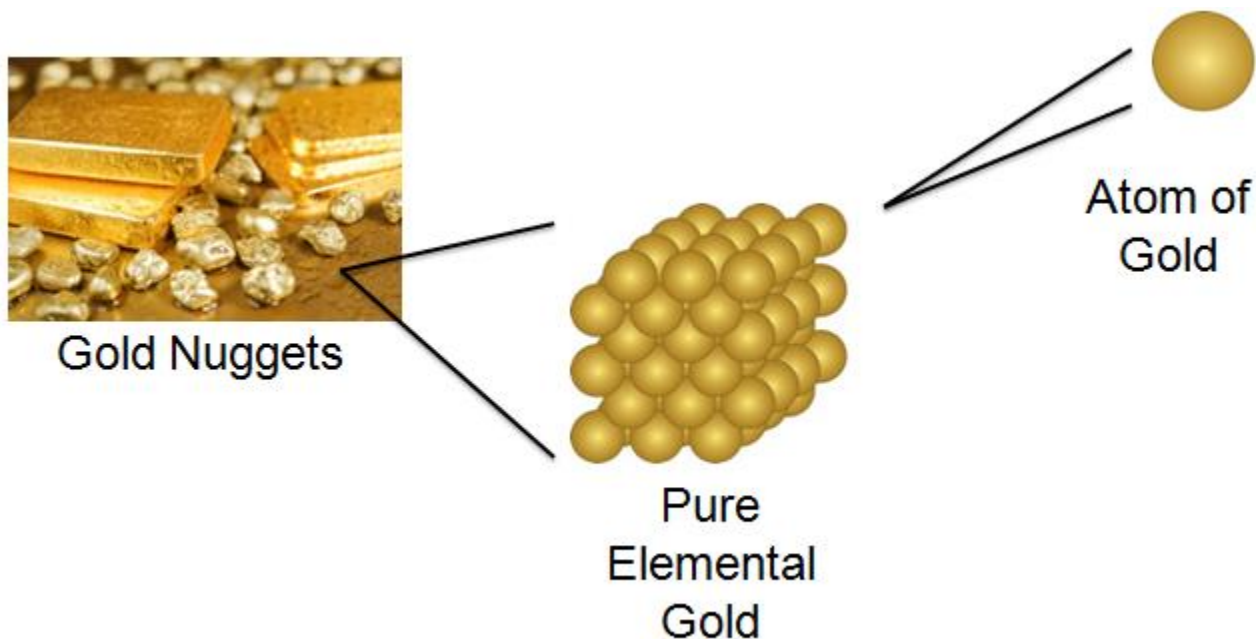
Matter and Energy

# Atom



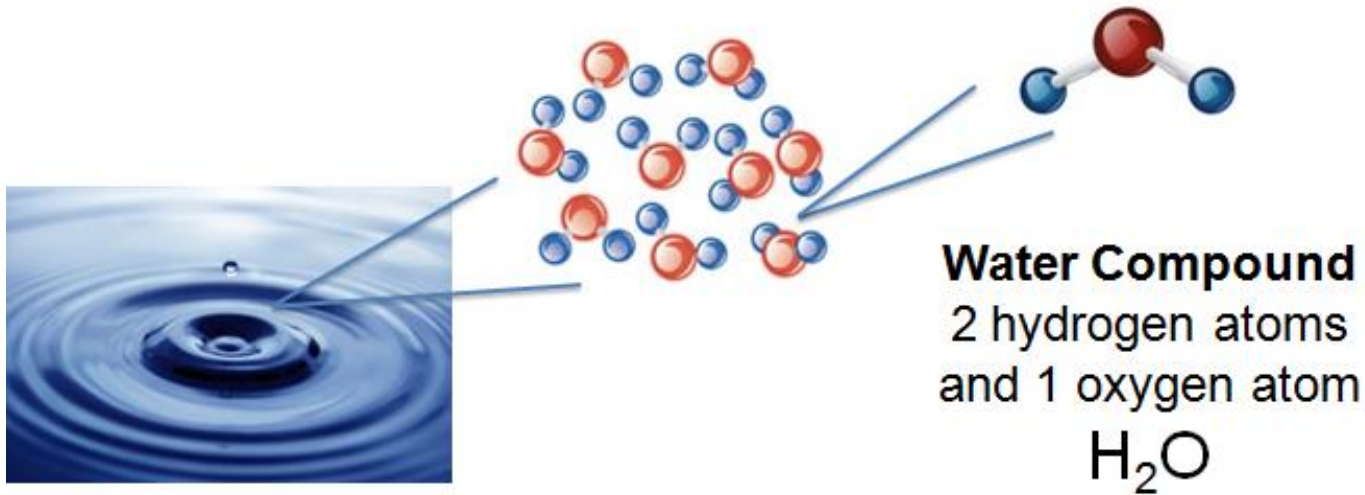
The smallest particle of an element maintaining the chemical identity of that element.

# Element



A pure substance composed of the same type of atom throughout.

# Compound



Pure substance made of two or more kinds of atoms bound together.

# Substance



Water



Helium Gas



Gold

Any form of matter that is uniform throughout and has consistent properties.

# Periodic Table of Elements

Periodic Table of Elements

1A																						8A
1																						2
H 1.008																						He 4.002
3	4																					
Li 6.941	Be 9.0121																					
11	12																					
Na 22.989	Mg 24.305																					
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36					
K 39.098	Ca 40.078	Sc 44.955	Ti 47.867	V 50.941	Cr 51.996	Mn 54.938	Fe 55.845	Co 58.933	Ni 58.693	Cu 63.546	Zn 65.409	Ga 69.723	Ge 72.64	As 74.921	Se 78.96	Br 79.904	Kr 83.798					
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54					
Rb 85.467	Sr 87.62	Y 88.905	Zr 91.224	Nb 92.906	Mo 95.94	Tc 98	Ru 101.07	Rh 102.905	Pd 106.42	Ag 107.868	Cd 112.411	In 114.818	Sn 118.710	Sb 121.760	Te 127.60	I 126.904	Xe 131.293					
55	56		72	73	74	75	76	77	78	79	80	81	82	83	84	85	86					
Cs 132.905	Ba 137.327	57-71	Hf 178.49	Ta 180.947	W 183.84	Re 186.207	Os 190.23	Ir 192.217	Pt 195.078	Au 196.966	Hg 200.59	Tl 204.383	Pb 207.2	Bi 208.980	Po 209	At 210	Rn 222					
87	88		104	105	106	107	108	109	110	111	112	113	114	115	116	117	118					
Fr 223	Ra 226	89-103	Rf 261	Db 262	Sg 266	Bh 264	Hs 277	Mt 268	Ds 271	Rg 272	Cn 285	Uut 285	Uuq 285	Uup 285	Uuh 285	Uus 285	Uuo 285					

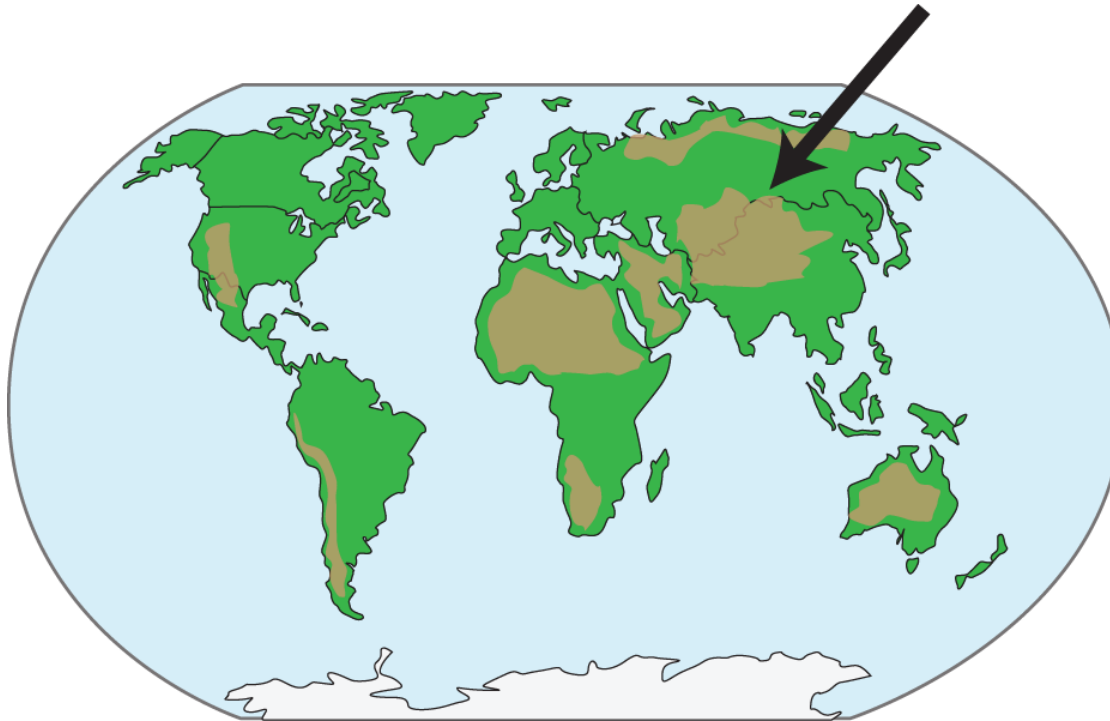
Atomic Number → 34  
 Symbol → Se  
 Atomic Mass → 78.96

Lanthanide series	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
	La 138.905	Ce 140.116	Pr 140.907	Nd 144.24	Pm 145	Sm 150.36	Eu 151.964	Gd 157.25	Tb 158.925	Dy 162.500	Ho 164.930	Er 167.259	Tm 168.934	Yb 173.04	Lu 174.967
Actinide series	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103
	Ac 227	Th 232.038	Pa 231.036	U 238.028	Np 237	Pu 244	Am 243	Cm 247	Bk 247	Cf 251	Es 252	Fm 257	Md 258	No 259	Lr 262

A table in which all the known elements are arranged by properties and are represented by one or two letters, referred to as chemical symbols.

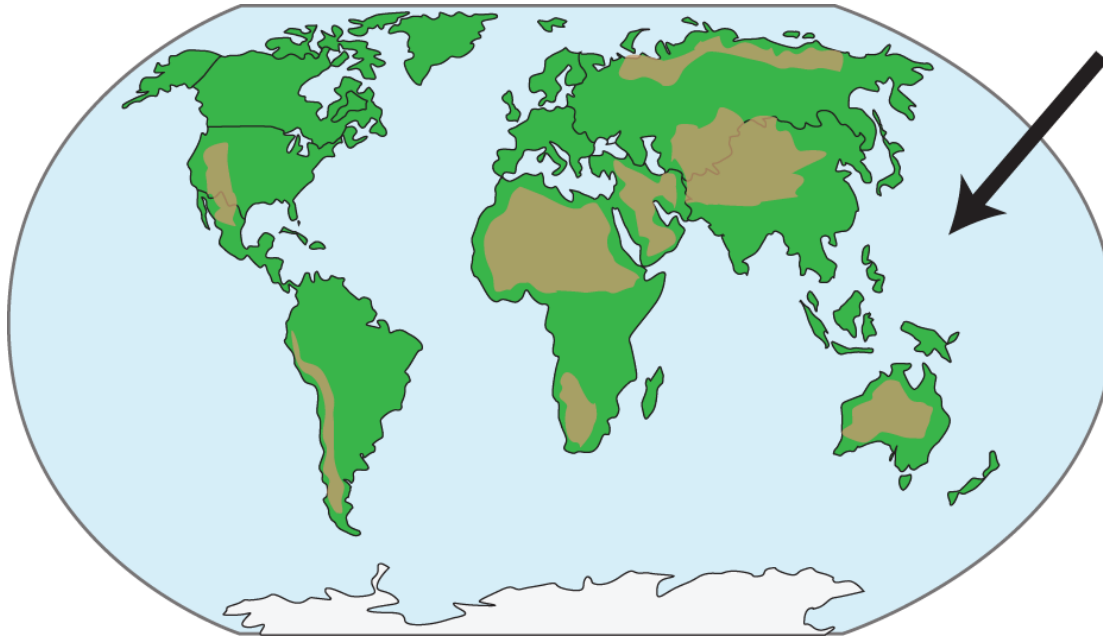


# Lithosphere



The solid Earth, the lithosphere, is made of a limited number of elements and is primarily composed of oxygen and silicon.

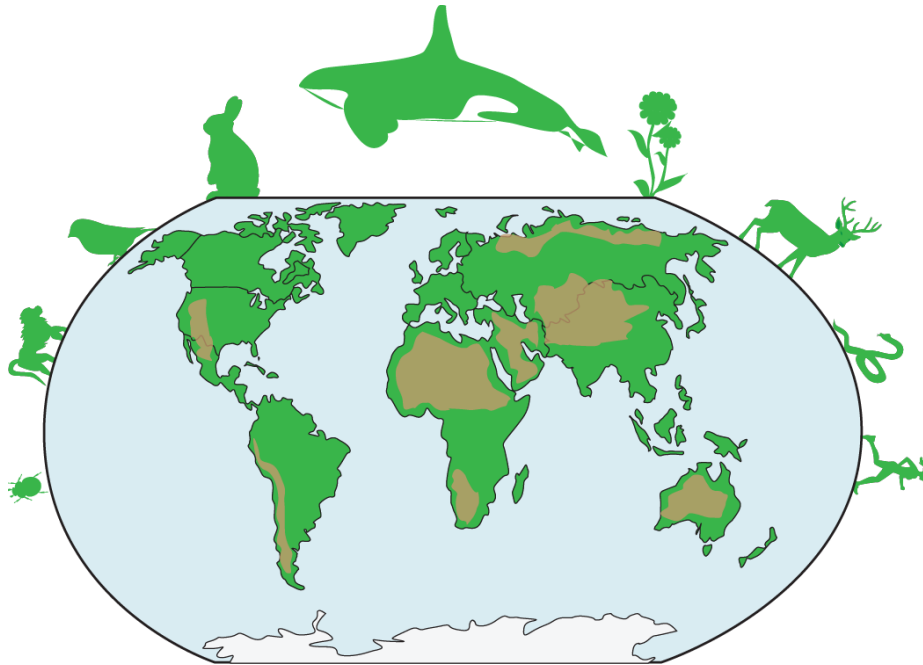
# Hydrosphere



All water on Earth: oceans, surface water, ground water, and glaciers; made of a limited number of elements and primarily composed of oxygen and hydrogen, the two elements in pure water

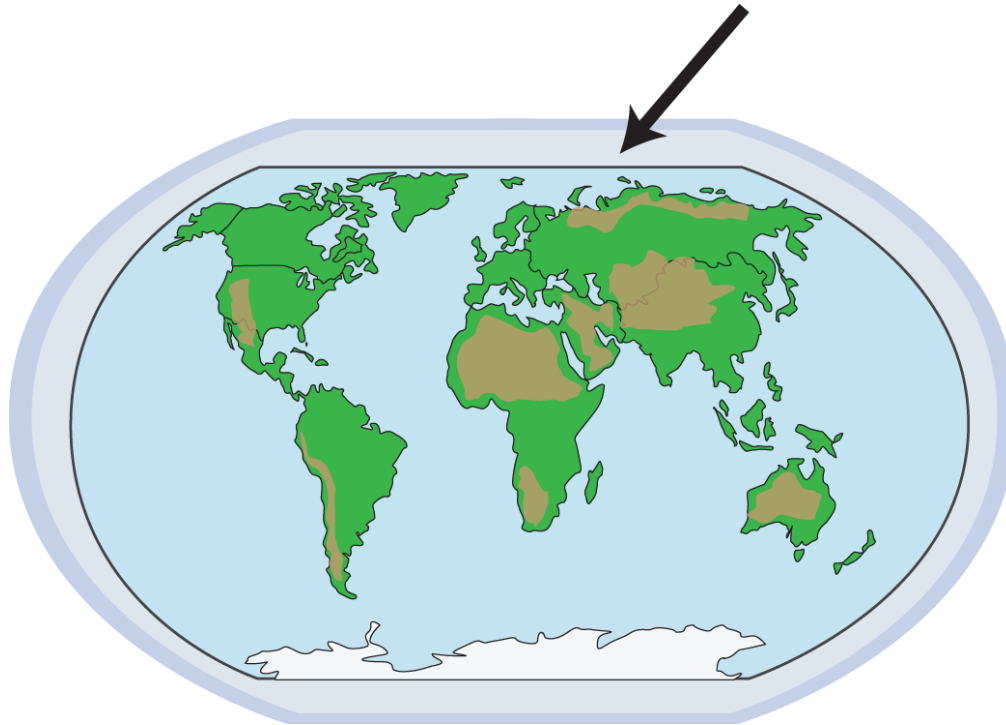


# Biosphere



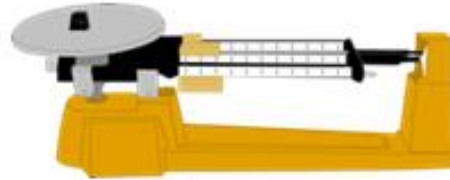
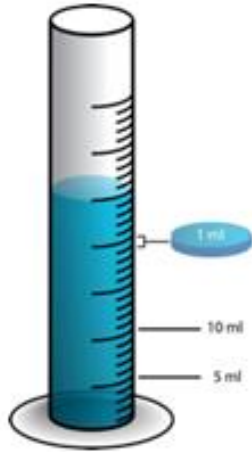
The sum of all living matter; made of a limited number of elements including oxygen, carbon, hydrogen, nitrogen, calcium, and phosphorus

# Atmosphere



The layer of gas surrounding planet Earth; held in place by gravity and composed of a limited number of elements, primarily nitrogen and oxygen.

# Matter



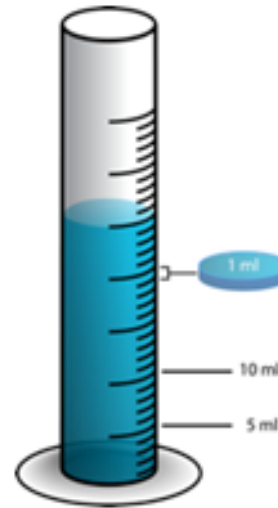
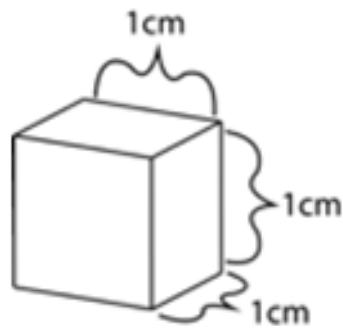
Matter is anything that has mass and takes up space. Matter occurs as elements, compounds, and mixtures.

# Properties



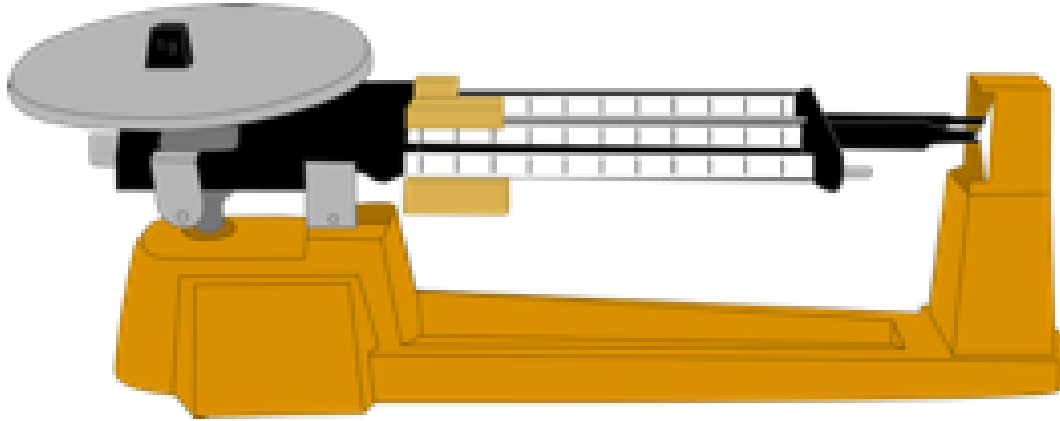
Physical and chemical characteristics of matter used to describe or identify a substance.

# Volume



A measure of how much space matter occupies.

# Mass



A measure of how much matter is present in a substance.

# Mixture



Made of a blend of elements and compounds;  
is not a pure substance because it does not have  
consistent properties.





# Uniform Composition



Made of the same evenly distributed substance or combination of substances throughout.