



NAME THAT MOLECULE CHALLENGE



SCIENCE LESSON WORKSHEET BUILDING SIMPLE MOLECULES

There are more than 50 million different types of molecules. Molecules consist of two or more atoms bonded together. Scientists use a variety of different ways to visualize them including structural formulas, perspective drawings, ball and stick and space fill models.

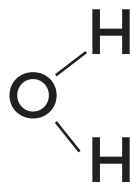
BUILDING SIMPLE MOLECULES

Use colored mini marshmallows and toothpicks or ball and stick model kits to build the molecules listed below. The lines represent which atoms are bonded.

1) O₂ (Oxygen)



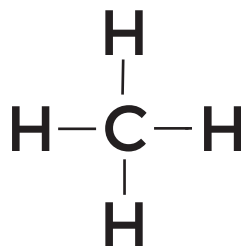
2) H₂O (Water)



3) CO₂ (Carbon Dioxide)



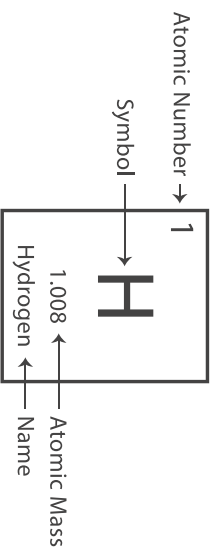
4) CH₄ (Methane)





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1	H Hydrogen 1.008	2	He Helium 4.002602
3	Li Lithium 6.94	5	B Boron 10.81
4	Be Beryllium 9.0121831	6	C Carbon 12.011
11	Na Sodium 22.98976928	7	N Nitrogen 14.007
12	Mg Magnesium 24.305	8	O Oxygen 15.999
19	K Potassium 39.0983	9	F Fluorine 18.998403163
20	Ca Calcium 40.078	10	Ne Neon 20.1797
21	Sc Scandium 44.955908	13	Al Aluminum 26.9815385
22	Ti Titanium 47.867	14	Si Silicon 28.085
23	V Vanadium 50.9415	15	P Phosphorus 30.973761998
24	Cr Chromium 51.9961	16	S Sulfur 32.06
25	Mn Manganese 54.938044	17	Cl Chlorine 35.45
26	Fe Iron 55.845	18	Ar Argon 39.948
27	Co Cobalt 58.933194		
28	Ni Nickel 58.6934		
29	Cu Copper 63.546		
30	Zn Zinc 65.38		
31	Ga Gallium 69.723		
32	Ge Germanium 72.630		
33	As Arsenic 74.921595		
34	Se Selenium 78.971		
35	Br Bromine 79.904		
36	Kr Krypton 83.798		
37	Rb Rubidium 85.4678		
38	Sr Strontium 87.62		
39	Y Yttrium 88.90584		
40	Zr Zirconium 91.224		
41	Nb Niobium 92.90637		
42	Mo Molybdenum 95.95		
43	Tc Technetium 98		
44	Ru Ruthenium 101.07		
45	Rh Rhodium 102.90550		
46	Pd Palladium 106.42		
47	Ag Silver 107.8682		
48	Cd Cadmium 112.414		
49	In Indium 114.818		
50	Sn Tin 118.710		
51	Sb Antimony 121.760		
52	Te Tellurium 127.60		
53	I Iodine 126.90447		
54	Xe Xenon 131.293		
55	Cs Cesium 132.90545196		
56	Ba Barium 137.327		
57	57 71		
58	89 103		
59	87 223		
72	Hf Hafnium 178.49		
73	Ta Tantalum 180.94788		
74	W Tungsten 183.84		
75	Re Rhenium 186.207		
76	Os Osmium 190.23		
77	Ir Iridium 192.217		
78	Pt Platinum 195.084		
79	Au Gold 196.966569		
80	Hg Mercury 200.592		
81	Tl Thallium 204.38		
82	Pb Lead 207.2		
83	Bi Bismuth 208.98040		
84	Po Polonium 209		
85	At Astatine 210		
86	Rn Radon 222		
87	Fr Francium 223		
88	Ra Radium 226		
89	89 103		
104	Rf Rutherfordium 267		
105	Db Dubnium 268		
106	Sg Seaborgium 269		
107	Bh Bohrium 270		
108	Hs Hassium 269		
109	Mt Meitnerium 278		
110	Ds Darmstadtium 281		
111	Rg Roentgenium 281		
112	Cn Copernicium 285		
113	Uut Ununtrium 286		
114	F1 Flerovium 289		
115	Uup Ununpentium 289		
116	Lv Livermorium 293		
117	Uus Ununseptium 294		
118	Uuo Ununoctium 294		



57	La Lanthanum 138.90547	58	Ce Cerium 140.116	59	Pr Praseodymium 140.90766	60	Nd Neodymium 144.242	61	Pm Promethium 145	62	Sm Samarium 150.36	63	Eu Europium 151.964	64	Gd Gadolinium 157.25	65	Tb Terbium 158.92535	66	Dy Dysprosium 162.500	67	Ho Holmium 164.93033	68	Er Erbium 167.259	69	Tm Thulium 168.93422	70	Yb Ytterbium 173.054	71	Lu Lutetium 174.9668
Lanthanide Series													Actinide Series																
89	Ac Actinium 227	90	Th Thorium 232.037	91	Pa Protactinium 231.03588	92	U Uranium 238.02891	93	Np Neptunium 237	94	Pu Plutonium 244	95	Am Americium 243	96	Cm Curium 247	97	Bk Berkelium 247	98	Cf Californium 251	99	Es Einsteinium 252	100	Fm Fermium 257	101	Md Mendelevium 288	102	No Nobelium 259	103	Lr Lawrencium 266

