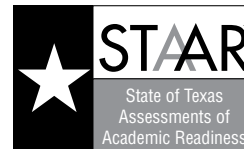


STAAR GRADE 8 SCIENCE REFERENCE MATERIALS



FORMULAS

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$

$$D = \frac{m}{V}$$

$$\text{Average speed} = \frac{\text{total distance}}{\text{total time}}$$

$$s = \frac{d}{t}$$

$$\text{Net force} = (\text{mass})(\text{acceleration})$$

$$F = ma$$

$$\text{Work} = (\text{force})(\text{distance})$$

$$W = Fd$$

STAAR GRADE 8 SCIENCE REFERENCE MATERIALS

PERIODIC TABLE OF THE ELEMENTS

		18 8A																																																																																																																										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18																																																																																																											
1A	2A	3B	4B	5B	6B	7B	8B	9B	10B	11B	12B	3A	4A	5A	6A	7A																																																																																																												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18																																																																																																											
H 1.008 Hydrogen	He 4.003 Helium	Li 6.941 Lithium	Be 9.012 Beryllium	B 10.812 Boron	C 12.011 Carbon	N 14.007 Nitrogen	O 15.999 Oxygen	F 18.998 Fluorine	Ne 20.180 Neon	Na 22.990 Sodium	Mg 24.305 Magnesium	Al 26.982 Aluminum	Si 28.086 Silicon	P 30.974 Phosphorus	S 32.066 Sulfur	Cl 35.453 Chlorine	Ar 39.948 Argon	K 39.098 Potassium	Ca 40.078 Calcium	Sc 44.956 Scandium	Ti 47.867 Titanium	V 50.942 Vanadium	Cr 51.996 Chromium	Mn 54.938 Manganese	Fe 55.845 Iron	Cobalt	Ni 58.693 Nickel	Cu 63.546 Copper	Zn 65.38 Zinc	Ga 69.723 Gallium	Ge 72.64 Germanium	As 74.922 Arsenic	Se 78.96 Selenium	Br 79.904 Bromine	Kr 83.798 Krypton	Rb 85.468 Rubidium	Sr 87.62 Strontium	Y 88.906 Yttrium	Zr 91.224 Zirconium	Nb 92.906 Niobium	Mo 95.96 Molybdenum	Tc (98) Technetium	Ru 101.07 Ruthenium	Rh 102.906 Rhodium	Pd 106.42 Palladium	Ag 107.868 Silver	Cd 112.412 Cadmium	In 114.818 Indium	Sn 118.711 Tin	Sb 121.760 Antimony	Te 127.60 Tellurium	I 126.904 Iodine	Xe 131.294 Xenon	Cs 132.905 Cesium	Ba 137.328 Barium	La 138.905 Lanthanum	Ce 140.116 Cerium	Pr 140.908 Praseodymium	Nd 144.242 Neodymium	Pm (145) Promethium	Sm 150.36 Samarium	Eu 151.964 Europium	Gd 157.25 Gadolinium	Tb 158.925 Terbium	Dy 162.500 Dysprosium	Ho 164.930 Holmium	Er 167.259 Erbium	Tm 168.934 Thulium	Yb 173.055 Ytterbium	Lu 174.967 Lutetium	Hf 178.49 Hafnium	Ta 180.948 Tantalum	W 183.84 Tungsten	Re 186.207 Rhenium	Os 190.23 Osmium	Ir 192.217 Iridium	Pt 195.085 Platinum	Au 196.967 Gold	Hg 200.59 Mercury	Tl 204.383 Thallium	Pb 207.2 Lead	Bi 208.980 Bismuth	Po (209) Polonium	At (210) Astatine	Rn (222) Radon	Fr (223) Francium	Ra (226) Radium	Lr (262) Lawrencium	Ac (227) Actinium	Th 232.038 Thorium	Pa 231.036 Protactinium	U 238.029 Uranium	Np (237) Neptunium	Pu (244) Plutonium	Am (243) Americium	Cm (247) Curium	Bk (247) Berkelium	Cf (251) Californium	Es (252) Einsteinium	Fm (257) Fermium	Mendelevium	No (259) Nobelium	Yt (261) Ytterbium	Rg (280) Roentgenium	Ds (281) Darmstadtium	Mt (276) Meitnerium	Hs (270) Hassium	Bh (272) Bohrium	Sg (271) Seaborgium	Db (268) Dubnium	Ta 180.948 Tantalum	W 183.84 Tungsten	Re 186.207 Rhenium	Os 190.23 Osmium	Ir 192.217 Iridium	Pt 195.085 Platinum	Au 196.967 Gold	Hg 200.59 Mercury	Tl 204.383 Thallium	Pb 207.2 Lead	Bi 208.980 Bismuth	Po (209) Polonium	At (210) Astatine	Rn (222) Radon

Atomic number — 14
Symbol — **Si**
Atomic mass — 28.086
Name — Silicon

Mass numbers in parentheses are those of the most stable or most common isotope.

Lanthanide Series		57	58	59	60	61	62	63	64	65	66	67	68	69	70
Actinide Series		89	90	91	92	93	94	95	96	97	98	99	100	101	102
		La 138.905 Lanthanum	Ce 140.116 Cerium	Pr 140.908 Praseodymium	Nd 144.242 Neodymium	Pm (145) Promethium	Sm 150.36 Samarium	Eu 151.964 Europium	Gd 157.25 Gadolinium	Tb 158.925 Terbium	Dy 162.500 Dysprosium	Ho 164.930 Holmium	Er 167.259 Erbium	Tm 168.934 Thulium	Yb 173.055 Ytterbium
		Ac (227) Actinium	Th 232.038 Thorium	Pa 231.036 Protactinium	U 238.029 Uranium	Np (237) Neptunium	Pu (244) Plutonium	Am (243) Americium	Cm (247) Curium	Bk (247) Berkelium	Cf (251) Californium	Es (252) Einsteinium	Fm (257) Fermium	Mendelevium	No (259) Nobelium