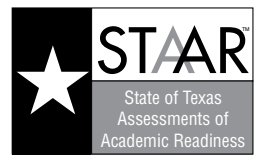


STAAR GRADE 8 SCIENCE REFERENCE MATERIALS



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

																		Atomic number — 14															
																		Si															
																		28.086															
																		Silicon		Name													
																		8		9		10											
																		11		12													
																		13		14		15		16		17		18					
																		3A		4A		5A		6A		7A		8A					
																		5		6		7		8		9		10					
																		B		C		N		O		F		Ne					
																		10.812		12.011		14.007		15.999		18.998		20.180					
																		Boron		Carbon		Nitrogen		Oxygen		Fluorine		Neon					
																		13		14		15		16		17		18					
																		Al		Si		P		S		Cl		Ar					
																		26.982		28.086		30.974		32.066		35.453		39.948					
																		Aluminum		Silicon		Phosphorus		Sulfur		Chlorine		Argon					
																		30		31		32		33		34		35		36			
																		Zn		Ga		Ge		As		Se		Br		Kr			
																		65.38		69.723		72.64		74.922		78.96		79.904		83.798			
																		Zinc		Gallium		Germanium		Arsenic		Selenium		Bromine		Krypton			
																		48		49		50		51		52		53		54			
																		Cd		In		Sn		Sb		Te		I		Xe			
																		112.412		114.818		118.711		121.760		127.60		126.904		131.294			
																		Cadmium		Indium		Tin		Antimony		Tellurium		Iodine		Xenon			
																		80		81		82		83		84		85		86			
																		Hg		Tl		Pb		Bi		Po		At		Rn			
																		200.59		204.383		207.2		208.980		(209)		(210)		(222)			
																		Mercury		Thallium		Lead		Bismuth		Polonium		Astatine		Radon			
																		79		78		77		76		75		74		73			
																		Au		Pt		Ir		Os		Re		W		Ta		Hf	
																		196.967		195.085		192.217		190.23		186.207		183.84		180.948		178.49	
																		Gold		Platinum		Iridium		Osmium		Rhenium		Tungsten		Tantalum		Hafnium	
																		111		110		109		108		107		106		105		104	
																		Rg		Ds		Mt		Hs		Bh		Sg		Db		Rf	
																		(280)		(281)		(276)		(270)		(272)		(271)		(268)		(267)	
																		Roentgenium		Darmstadtium		Meitnerium		Hassium		Bohrium		Seaborgium		Dubnium		Rutherfordium	
																		64		63		62		61		60		59		58		57	
																		Gd		Eu		Sm		Pm		Nd		Pr		Ce		La	
																		157.25		151.964		150.36		(145)		144.242		140.908		140.116		138.905	
																		Gadolinium		Europium		Samarium		Promethium		Neodymium		Praseodymium		Cerium		Lanthanum	
																		96		95		94		93		92		91		90		89	
																		Cm		Am		Pu		Np		U		Pa		Th		Ac	
																		(247)		(243)		(244)		(237)		238.029		231.036		232.038		(227)	
																		Curium		Americium		Plutonium		Neptunium		Uranium		Protactinium		Thorium		Actinium	

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

Lanthanide Series

Actinide Series