Chemistry I - Mrs. Bauck, PHUHS

Unit 8: Fluids (Ch. 11, 12, 13)

State Standards (*** = Chem 1H only)

Topic 1: Behavior of Gases

SC.912.P.12.10 Interpret the behavior of ideal gases in terms of kinetic molecular theory.

Topic 2: Phase Transitions

SC.912.P.12.11 Describe phase transitions in terms of kinetic molecular theory.

SC.912.P.10.5 Relate temperature to the average molecular kinetic energy.

Topic 3: Intra and Intermolecular Forces

SC.912.P.8.6 Distinguish between bonding forces holding compounds together and other attractive forces, including hydrogen bonding and van der Waals forces. (also covered first semester)

SC.912.L.18.12 Discuss the special properties of water that contribute to Earth's suitability as an environment for life: cohesive behavior, ability to moderate temperature, expansion upon freezing, and versatility as a solvent.

		Students will be able to:	
4.0	Extensions/Applications	CHAPTER 12	
		□ Design an experiment to illustrate one of the gas laws.	
		□ Investigate how the mathematics would be different with real gases vs,	
		ideal gases.	
		□ Research properties of plasma	
		CHAPTER 13	
		□ Give specific, scientific and nonscientific examples of homogeneous	
		mixtures.	
		□ Give specific, scientific and nonscientific examples of heterogeneous	
		mixtures.	
		□ Research and demonstrate how surfactants work to clean up an oil spill.	

3.0 Learning Gnal (Derived from State Standard) 3.0 Learning Gnal (Derived from State Standard) 3.0 Learning Gnal (Derived from State Standard) 3.1 Learning Gnal (Derived from State Standard)			~ .	
 I. Learning Goal (Derived from State Standard) J. J. J			Students	will be able to:
 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard) 3.0 Compare the order of the properties of standard pressure and standard temperature. CHAPTER 12 3.0 Learning Goal (Derived from State Standard) 			FIRST S	EMESTER; CHAPTER 11
3.0 Learning Goal (Derived from State Standard) Compare the strength of intermolecular attractions with the strengths of ionic and covalent bonds Explain the difference between intermolecular and intramolecular forces. CHAPTER 11 Explain into points of the Kinetic Molecular Theory (KMT). Describe phase transitions (changes in iterms of KMT. Contrast the following: BOILING vs. FVAPORATION vs. CONDENSATION FREEZING vs. MELTING BEREW and MATTON vs. ECONDENSATION Describe phase transitions (changes in terms of KMT. Contrast the following: BOILING vs. FVAPORATION vs. CONDENSATION FREEZING vs. MELTING Determine the following: Compare the motion of particles. Compare the motion of particles. Determine the following: Compare the motion of particles. Compare the motion of particles. Compare the motion of particles. Compare the motio				Predict charge distribution based on electronegativity values and location
 Compare the strengths of intermolecular attractions with the strength of ionic and covalent bonds Explain the difference between intermolecular and intramolecular forces. CHAPTER 11 Explain main points of the Kinetic Molecular Theory (KMT). Describe, compare, and contrast tactic and inclusite collisions. Describe, compare, and contrast collisions. Describe, compare, and contrast tactic and inclusite collisions. Describe, compare, and contrast tactic collisions. Describe, compare, and contrast true in kelvin and the average kinetic energy of particles. Determine the phase of a substance using a heating curve (time vs. temp) or a phase of a substance using a heating curve (time vs. temp) or a phase of a substance using a heating curve (time vs. temp) or a phase of a substance using a heating curve (time vs. temp) or a phase of a substance using values for standard pressare. Compare the continus turber/statiline and annophous solids. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect				of element on the periodic table
 3.0 Learning Goal (Derived from State Standard) 				Compare the strengths of intermolecular attractions with the strengths of
 3.0 Learning Goal (Derived from State Standard) 3.0 The Standard Pressure. 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Sta				ionic and covalent bonds
 CHAPTER 11 Explain main points of the Kinetic Molecular Theory (KMT). Describe, compare, and contrast elastic and inelastic collisions. Describe phase transitions (changes) in terms of KMT. Contrast the following: BOILING vs. EVAPORATION vs. CONDENSATION FREEZING vs. MELTING Define the relationship between the temperature in kelvin and the average kinetic energy of particles. Determine the phase of a substance using a heating curve (time vs. temp) or a phase diagram. Compare the motion of particles in different phases. Compare the motion of particles in different phases. Compare and contrast true/crystalline and amorphous solids. Identify the conditions under which phase changes occur. Mathematically convert from one pressure with to avoid agebraic gas laws. Correctly work algebraic gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW GAY-LUSSAC'S LAW ODEMINE OG AS LAW DEAL GOS LAW DEAL TON'S LAW OF PARTIAL PRESSURES Identify the conditions duder vhich pressure and standard temperature. Define and give examples of directly proportional relationships. Explain how the interactions between water molecules accounts for the unique properties of water. Define and give examples of directly proportional relationships. Explain how the interactions between twee molecules accounts for the unique properties of water. 				Explain the difference between intermolecular and intramolecular forces.
3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard)			CHAPTE	ER 11
 Bescribe, compare, and contrast telastic and inelastic collisions. Describe phase transitions (changes) in terms of KMT. Contrast the following: BOILING vs. EVAPOR ATION vs. CONDENSATION PREEZING vs. MELTING SUBLIMATION vs. DEPOSITION Define the relationship between the temperature in kelvin and the average kinetic energy of particles. Determine the phase of a substance using a heating curve (time vs. temp) or a phase diagram. Compare the motion of particles in different phases. Compare and contrast true/crystalline and amorphous solids. Identify the conditions under which phase changes occur. Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW COMBINED GAS LAW DOALTON'S LAW OF PARTIAL PRESSURES Define and give examples of directly proportional relationships. Explain the sorth efficient of a reas form an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique proportions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between the realionships. Explain the savine "like dissolves inke." 				Explain main points of the Kinetic Molecular Theory (KMT).
 Besche phase transitions (changes) in terms of KMT. Contrast the following: BOILING vs. EVAPORATION vs. CONDENSATION PREEZINO vs. MELTINO Define the relationship between the temperature in kelvin and the average kinetic energy of particles. Determine the phase of a substance using a heating curve (time vs. temp) or a phase diagram. Compare the motion of particles in different phases. Compare the motion of particles and the average kinet. Define and give examples of indirectly proportional relationships. Define and give examples of indirectly proportional relationships. Define and give exam				Describe, compare, and contrast elastic and inelastic collisions.
 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard) Contrast the following: Contrast the collowing: BUBLIMATION vs. CONDENSATION FREEZING vs. MELTING SUBLIMATION vs. DEPOSITION Define the relationship between the temperature in kelvin and the average kinetic energy of particles. Determine the phase of a substance using a heating curve (time vs. temp) or a phase diagram. Compare due contrast true/crystalline and amorphous solids. Identify the conditions under which phase changes occur. Mathematically convert from one pressure unit to another, using values for standard pressure. CHARLES' LAW Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factors that affect the behavior of gases. Identify the factor shat affect the behavior of gases. Identify the factor shat affect the behavior of gases. Identify the factor shat affect the behavior of gases. Identify the factor shat affect the provide and the pressure. CHARLES' LAW GAY-LUSSAC'S LAW DAL TON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard temperature. Define and give				Describe phase transitions (changes) in terms of KMT.
3.0 Learning Goal (Derived from State Standard) BOIL NIG vs. EVAPÕRATION vs. CONDENSATION 3.0 Learning Goal (Derived from State Standard) Define the relationship between the temperature in kelvin and the average kinetic energy of parised its arm. 3.0 Learning Goal (Derived from State Standard) Compare the motion of particles. 3.0 Learning Goal (Derived from State Standard) Compare the motion of particles in different phases. 3.0 Compare the motion of particles in different phases. Compare and contrast true/crystalline and amorphous solids. Identify the conditions under which phase changes occur. Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 Identify the relationships between temperature, pressure, volume, and moles using the gas laws. COMBINED GAS LAW GAY-LUSSAC'S LAW IDEAL GAS LAW DALITON'S LAW OF PARTIAL PRESSURES Identify the meditions under which a real gas deviates from an ideal gas. Identify unmerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Define and give examples of did				Contrast the following:
3.0 Learning Goal (Derived from State Standard) FREEZING vs. MELTING SUBLIMATION vs. DEPOSITION Define the relationship between the temperature in kelvin and the average kinetic energy of particles. Determine the phase of a substance using a heating curve (time vs. temp) or a phase diagram. Compare the motion of particles in different phases. Compare the motion of particles in different phases. Compare the motion of particles in different phases. Identify the conditions under which phase charges occur. Mathematically convert from one pressure unit to another, using values for standard pressure. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW GAY-LUSSAC'S LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. 				BOILING vs. EVAPORATION vs. CONDENSATION
 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard temperature. Incomposition of Gast				FREEZING vs. MELTING
 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard) a Learning Goal (Derived from State Standard) b Learning Goal (Derived from State Standard) c Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 c Identify the relationships between the thephase of a substance using a heating curve (time vs. temp) or a phase diagram. c Compare and contrast true/crystalline and amorphous solids. identify the conditions under which phase changes occur. Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 identify the factors that affect the behavior of gases. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. c Correctly work algebraic gas law problems: G GAY-LUSSAC'S LAW COMBINED GAS LAW DDEALTON'S LAW OF PARTIAL PRESSURES identify numerical values for standard pressure and standard temperature. Define and give examples of indirectly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properies of water. Kelate different properies of water with their importance to life on Earth. Kelatify the reson substance standard in easing water. 				SUBLIMATION vs. DEPOSITION
 kinetic energy of particles. betermine the phase of a substance using a heating curve (time vs. temp) or a phase diagram. Compare the motion of particles in different phases. Identify the conditions under which phase changes occur. Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW CHAPTER 13 DALTON'S LAW OF PARTIAL PRESURES Identify numerical values for standard pressure and standard temperature. Define and give examples of indirectly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain the solves like." 				Define the relationship between the temperature in kelvin and the average
 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard temperature, pressure, volume, and moles using in the conditions under which areal gas deviates from an ideal gas. 3.0 Learning Goal (Derived From State Standard temperature, IDefine and give examples of directly proportional relationships. 3.0 Define and give examples of materic properties of water. 3.0 Explain the conditions under which areal gas deviates from an ideal gas. 3.0 Explain how the interactio				kinetic energy of particles.
 a.0 Learning Goal (Derived from State Standard) 3.0 Learning Learning				Determine the phase of a substance using a heating curve (time vs. temp)
 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard) Compare the motion of particles in different phases. Compare and contrast true/crystalline and amorphous solids. Identify the conditions under which phase changes occur. Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 Identify the factors that affect the behavior of gases. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW CHARLES' LAW GAY-LUSSAC'S LAW COMBINED GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values of standard remperature. Define and give examples of directly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain the sonie of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. 				or a phase diagram.
 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard) 3.0 Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 Identify the factors that affect the behavior of gases. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law s. Correctly work algebraic gas law problems: BOYLE'S LAW CHARLES' LAW CHARLES' LAW GAY-LUSSAC'S LAW DEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values of standard pressure and standard temperature. Define and give examples of directly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water. Explain the syncing "like dissolve in water. 				Compare the motion of particles in different phases.
 3.0 Learning Goal (Derived from State Standard) 3.0 Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 Identify the factors that affect the behavior of gases. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW CHARLES' LAW GAY-LUSSAC'S LAW COMBINED GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain the conditions under which areal gas deviates from an ideal gas. CHAPTER 13 Explain the conditions under which areal gas deviates from an ideal gas. CHAPTER 13 Explain the conditions under which areal gas deviates from an ideal gas. CHAPTER 13 Explain the conditions under which areal gas deviates from an ideal gas. CHAPTER 13 CHAPTER 13 Explain the conditions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the water "ide kösolves like." 				Compare and contrast true/crystalline and amorphous solids.
 3.0 Learning Goal (Derived from State Standard) 3.0 Learning Goal (Derived from State Standard) Mathematically convert from one pressure unit to another, using values for standard pressure. CHAPTER 12 Identify the factors that affect the behavior of gases. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW CHAPLES' LAW COMBINED GAS LAW IDEAL GAS LAW DOLTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of interctly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water. Relate different properties of substances that will dissolve in water. Explain how the interactions between the integrature to life on Earth. Identify the types of substances that will dissolve in water. 				Identify the conditions under which phase changes occur.
 3.0 Learning Goal (Derived from State Standard) for standard pressure. CHAPTER 12 I Identify the factors that affect the behavior of gases. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW CHARLES' LAW GAY-LUSSAC'S LAW COMBINED GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Relate different properties of water. Relate different properties of water. Identify the types of substances that will dissolve in water. 	2.0			Mathematically convert from one pressure unit to another, using values
CHAPTER 12 Identify the factors that affect the behavior of gases. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW CHARLES' LAW GAY-LUSSAC'S LAW COMBINED GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of infrectly proportional relationships. Define and give examples of infrectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Relate different properties of water. Relate different properties of substances that will dissolve in water. Explain the saving "like dissolves like."	3.0	Learning Goal (Derived from State Standard)		for standard pressure.
□ Identify the factors that affect the behavior of gases. Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: □ BOYLE'S LAW □ CHARLES' LAW □ CHARLES' LAW □ GAY-LUSSAC'S LAW □ COMBINED GAS LAW □ IDEAL GAS LAW □ DALTON'S LAW OF PARTIAL PRESSURES □ Identify numerical values for standard pressure and standard temperature. □ Define and give examples of directly proportional relationships. □ Define and give examples of directly proportional relationships. □ Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 □ □ Explain how the interactions between water molecules accounts for the unique properties of water. □ Relate different properties of water with their importance to life on Earth. □ Identify the types of substances that will dissolve in water. □ Explain the saving "like dissolves like."			CHAPTE	ER 12
Identify the relationships between temperature, pressure, volume, and moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW CHARLES' LAW GAY-LUSSAC'S LAW COMBINED GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water.				Identify the factors that affect the behavior of gases.
 moles using the gas laws. Correctly work algebraic gas law problems: BOYLE'S LAW CHARLES' LAW GAY-LUSSAC'S LAW COMBINED GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. 				Identify the relationships between temperature, pressure, volume, and
Correctly work algebraic gas law problems: Correctly work algebraic gas law problems: BOYLE'S LAW CHARLES' LAW CHARLES' LAW GAY-LUSSAC'S LAW COMBINED GAS LAW DEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Define and give examples of water with their importance to life on Earth. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like."				moles using the gas laws.
 BOYLE'S LAW CHARLES' LAW GAY-LUSSAC'S LAW GAY-LUSSAC'S LAW COMBINED GAS LAW IDEAL GAS LAW DLEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water. Relate different properties of water. Explain the systom water. Explain the systom water. Explain the systom water. 				Correctly work algebraic gas law problems:
 CHARLES' LAW GAY-LUSSAC'S LAW COMBINED GAS LAW IDEAL GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like," 				BOYLE'S LAW
 GAY-LUSSAC'S LAW COMBINED GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				CHARLES' LAW
 COMBINED GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				GAY-LUSSAC'S LAW
 IDEAL GAS LAW IDEAL GAS LAW DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				COMBINED GAS LAW
 DALTON'S LAW OF PARTIAL PRESSURES Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				IDEAL GAS LAW
 Identify numerical values for standard pressure and standard temperature. Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				DALTON'S LAW OF PARTIAL PRESSURES
 Define and give examples of directly proportional relationships. Define and give examples of indirectly proportional relationships. Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				Identify numerical values for standard pressure and standard temperature.
 Define and give examples of indirectly proportional relationships. Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				Define and give examples of directly proportional relationships.
 Define the give of many is of many proportional relationships? Explain the conditions under which a real gas deviates from an ideal gas. CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				Define and give examples of indirectly proportional relationships.
 CHAPTER 13 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				Explain the conditions under which a real gas deviates from an ideal gas
 Explain how the interactions between water molecules accounts for the unique properties of water. Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 			CHAPTE	ER 13
 □ Duptain its if the interfactors between which insteaded its for the unique properties of water. □ Relate different properties of water with their importance to life on Earth. □ Identify the types of substances that will dissolve in water. □ Explain the saving "like dissolves like." 				Explain how the interactions between water molecules accounts for the
 Relate different properties of water with their importance to life on Earth. Identify the types of substances that will dissolve in water. Explain the saving "like dissolves like." 				unique properties of water.
 □ Identify the types of substances that will dissolve in water. □ Explain the saving "like dissolves like." 				Relate different properties of water with their importance to life on Farth
\square Explain the saving "like dissolves like."				Identify the types of substances that will dissolve in water
\Box Explain the buying interaction into				Explain the saving "like dissolves like "
\square Be able to work molarity problems, solving for M moles, or g				Be able to work molarity problems, solving for M, moles or g

		Students will be able to:	
		□ Explain the concept of electronegativity.	
		□ Describe a crystal lattice.	
		\Box Be able to use the molar volume of a gas at STP in calculations.	
2.0	Required Skills or Background Knowledge to accomplish Learning Goal	\Box Be able to name and write chemical formulas for ionic compounds (BI,	
		TI, OTHER).	
		□ Be able to name and write chemical formulas for covalent compounds	
		(BM).	
		\Box Name hydrates.	
		□ Be able to round to the proper number of significant figures in all	
		calculations.	
1.0		With help from a teacher, students will be able to:	
1.0	with help from the teacher, student has partial success with the goal	\Box Achieve partial success with 2.0 and/or 3.0.	
0.0	Even with help, the student has no success with the goal	□ Even with help, student is unable to understand or complete any of the	
0.0	Even with help, the student has no success with the goat	skills in scales 1.0 through 4.0.	