

Stage 1 Desired Results

ESTABLISHED GOALS (CCSS)		<i>Transfer</i>	
RST.11-12.1-3		<i>Students will be able to independently use their learning to...</i>	
RST.11-12.4-6		Calculate properties of gases.	
RST.11-12.7-9		Differentiate molecular activity in solids, liquids, and gases.	
		Interpret Phase Diagrams	
		<i>Meaning</i>	
WHST.11-12.2a-e		UNDERSTANDINGS	ESSENTIAL QUESTIONS:
RL.11-12.1,2,3,4,7		<i>Students will understand that...</i>	How are the gas laws used to predict quantities of gases?
		The difference between solid, liquid, and gas is the strength of the attraction between molecules.	How can you use $PV = nRT$?
		A phase diagram shows what state of matter a substance will exist in at a certain temperature and pressure.	What does a phase diagram show?
		<i>Acquisition</i>	
		<i>Students will know...</i>	<i>Students will be skilled at...</i>
		$PV = nRT$	Calculating using the gas laws.
		$PV/T = PV/T$	Reading phase diagrams
		Phase Diagrams	Identifying which substance will be a solid, liquid, gas based on polarity.

Stage 2 - Evidence

Evaluative Criteria		Assessment Evidence			
PERFORMANCE TASKS		CURRICULUM EMBEDDED PERFORMANCE ASSESSMENT (PERFORMANCE TASKS):			
		End of Unit exam that allows students to complete stoichiometric calculations, predict the state of matter, read a phase diagram, and make calculations using the gas laws.			
		Lab write up that requires students to construct a data chart, perform calculations, and draw conclusions based on data.			
		OTHER EVIDENCE:			
		Daily assignments.			
		Two lab write ups			
		Exam Review			
		Exam			
CLAIMS	L A M	<u>CLAIM 1</u>	<u>CLAIM 2</u>	<u>CLAIM 3</u>	<u>CLAIM 4</u>
		<u>CLAIM 1</u>	<u>CLAIM 2</u>	<u>CLAIM 3</u>	<u>CLAIM 4</u>

DEPTH OF KNOWLEDGE LEVELS	<u>DOK 1</u>	<u>DOK2</u>	<u>DOK 3</u>	<u>DOK4</u>
ACHIEVEMENT LEVEL DESCRIPTORS	<u>ALD 1</u>	<u>ALD 2</u>	<u>ALD 3</u>	<u>ALD 4</u>
Stage 3 – Learning Plan				
<i>Summary of Key Learning Events and Instruction</i>				
				<ul style="list-style-type: none"> - Take notes on gases, solids, and liquids <ul style="list-style-type: none"> o Use kinetic molecular theory to explain solids, liquids, and gases o Define gas laws and the ideal gas law o Analyze phase diagrams - Complete labs <ul style="list-style-type: none"> o Gas Laws o Molar Volume of H₂ gas o Heat of fusion of ice - Complete homework <ul style="list-style-type: none"> o Practice gas laws o Practice work with phase diagrams - Check understanding using whiteboards - Review worksheet and final practice - Exam on states of matter