

# Lab Activities Syllabus

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The order and content of this syllabus may change depending on school events, snow days, materials availability, and other schedule disruptions.

<b>Q1: The Nature of Chemistry</b>	<b>Target(s)</b>
<b>I. Nature of Science</b>	
#1-0: Using Logic to Explain (Stations)*	SM
<b>II. Matter &amp; Energy</b>	
#1-1: Alchemy	HPS, CM
#1-2: Law of Definite Proportions	CM, HMA
#1-3: Flame Test	PT, EGF
<b>III. Chemical Equations</b>	
#1-4: Reactivity of Metals	CR, WE, IPR
<b>Q1 Capstone Lab</b>	
#1-5: Activity Series of Metals Using Fruit	

<b>Q2: Chemical Quantities</b>	<b>Target(s)</b>
<b>I. Scientific Measurement</b>	
#2-0: Scientific Measurement (Stations)*	SI
#2-1: Density Blocks	SI, DPM
<b>II. Chemical Quantities</b>	
#2-2: Atomic Mass of "Beanium"	MSA
<b>III. Stoichiometry</b>	
#2-3: Stoichiometry	MMC, PY
#2-4: Limiting Reagents: Turning Iron into Copper	MMC, LR
<b>Q2 Capstone Lab</b>	
#2-5: Bulbous Balloon Challenge	

\* Stations labs will not require a write-up to be submitted.

<b>Q3: Kinetic Theory</b>		<b>Target(s)</b>
<b>I. States of Matter</b>		
#3-1: Change of Physical State		<b>CS</b>
<b>II. Thermochemistry</b>		
#3-2: Heat of Combustion of a Candle		<b>CHC</b>
<b>III. The Behavior of Gases</b>		
#3-0: Gas Laws (Stations)*		<b>PG, IGL</b>
#3-3: Molar Mass of Butane		<b>MM, PG</b>
#3-4: Ideal Gas Constant		<b>IGL</b>
<b>Q3 Capstone Lab</b>		
#3-5: Measuring the Energy Content of Food		

<b>Q4: Chemistry &amp; Society</b>		<b>Target(s)</b>
<b>I. Water, Aqueous Systems &amp; Solutions</b>		
#4-0: Properties of Water (Stations)*		<b>WAS, PS</b>
#4-1: Supersaturation		<b>PS, CoSM</b>
<b>II. Acids &amp; Bases</b>		
#4-2: Natural Indicators		<b>PAB, CPH</b>
#4-3: Acid-Base Titration		<b>ABR, NR</b>
#4-4: Testing Antacids		<b>ABR, NR</b>
<b>Q4 Capstone Lab</b>		
#4-5: Purification of Water		

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