



APS Science Curriculum Unit Planner

Grade Level/Subject	Grade 8 Physical Science Unit 2
Stage 1: Desired Results	
Enduring Understanding	
Our universe is composed of matter which is anything that has mass and volume	
Correlations	
Unifying Understanding	
VA SOL	PS 1, PS2a,c, d,e,f
NSES (grade level)	
AAAS Atlas	
Essential Questions	
<ul style="list-style-type: none">• What is matter?• How do we describe matter?• What forms does matter come in?	
Knowledge and Skills	
Students should know:	
<ul style="list-style-type: none">• What characteristics make something matter and why such a simple definition gets more complex as particles get smaller• The definitions of physical and chemical properties and changes• Examples of physical and chemical properties and changes• Different ways to write the “names” of substances and what each way of writing it tells us about the substance (chemical name, formula and common name)• What a Bunsen burner is , where it came from, and how it works	

Students should be able to:	
<ul style="list-style-type: none"> Recognize physical and chemical changes in the lab Explain the basic difference between substances combining physically and substances combining chemically Give examples of chemical names, chemical formulae and common names of substances Identify examples of physical and chemical changes Use a Bunsen burner safely 	
Stage 2: Assessment Evidence	
Prior Knowledge and Skills	
<ul style="list-style-type: none"> Difference between physical and chemical changes 	
Formative Assessment	Summative Assessment
<ul style="list-style-type: none"> Mystery Mixture observation sheet Mystery Mixture analysis Physical and Chemical Properties Warm-up 	<ul style="list-style-type: none"> Mystery Mixture Summary Hottest part of the flame/Intro to Bunsen burner lab Unit Test Physical and Chemical Changes
Stage 3: Learning Plan	
References to Adopted Materials	
<ul style="list-style-type: none"> Holt Physical Science CH2 Concepts and Challenges in Physical Science CH 12 Sections 1,3,4 	
Suggested Investigations	
<ul style="list-style-type: none"> Hottest part of the Flame Bunsen Burner lab FOSS Chemical Interactions Investigation 1 	
Outdoor Education Applications	
<ul style="list-style-type: none"> 	
Resources	
Web Sites	
<ul style="list-style-type: none"> http://phet.colorado.edu/ 	
Videos	
<ul style="list-style-type: none"> Chemistry a Volatile History 	

United Streaming
<ul style="list-style-type: none">•
Field Trips
<ul style="list-style-type: none">•
Other
<ul style="list-style-type: none">• McDougall Physical Science CH section 1, CH 2 Sections 1 and 3