

**AVS Science Educator's Workshop  
Alignment to NSES Standards for Grades 5-8**

<b>National Standards for Science (5-8) Low Pressure Experiments and Modeling for High School Science Curricula</b>	<b>Mod 1: Low Press. Technol. &amp; Expts.</b>	<b>Mod 2: Models and Theory</b>	<b>Mod 3: Real World Models &amp; Apps.</b>	<b>Mod 4: Engr. Apps.</b>	<b>Mod 5: Vac Equip: Pumps and Gauges</b>
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<b>NS.6-8.1: SCIENCE AS INQUIRY</b>					
1.1 abilities necessary to do scientific inquiry	X	X	X	X	X
1.2 understandings about scientific inquiry	X	X	X	X	X
<b>NS.6-8.2: PHYSICAL SCIENCE</b>					
2.1 properties and changes of properties in matter	X		X	X	X
2.2 motion and forces	X	X	X	X	X
2.3 transfer of energy			X	X	X
<b>NS.6-8.3: LIFE SCIENCE</b>					
3.1 structure and function of living systems					
3.2 reproduction and heredity					
3.3 regulation and behavior				X	
3.4 population and ecosystems				X	
3.5 diversity and adaptations of organisms					
<b>NS.6-8.4: EARTH AND SPACE SCIENCE</b>					
4.1 structure of the earth system	X			X	
4.2 earth's history					
4.3 earth in the solar system					
<b>NS.6-8.5: SCIENCE AND TECHNOLOGY</b>					
5.1 abilities of technological design	X	X	X	X	X
5.2 understanding about science and technology	X	X	X	X	X
<b>NS.6-8.6: PERSONAL AND SOCIAL PERSPECTIVES</b>					
6.1 personal health				X	
6.2 populations, resources, and environments				X	
6.3 natural hazards					
6.4 risks and benefits				X	
6.5 science and technology in society	X	X	X	X	X
<b>NS.6-8.7 HISTORY AND NATURE OF SCIENCE</b>					
7.1 science as a human endeavour	X	X	X	X	X
7.2 nature of science	X	X	X	X	X
7.3 history of science	X	X	X	X	X

**AVS Science Educator's Workshop**  
**Alignment to NSES Standards for Grades 9-12**

<b>National Standards for Science (9-12)</b> <b>Low Pressure Experiments and Modeling for High School Science Curricula</b>	<b>Mod 1: Low Press Technol. &amp; Expts.</b>	<b>Mod 2: Models and Theory</b>	<b>Mod 3: Real World Models &amp; Apps.</b>	<b>Mod 4: Engr Apps.</b>	<b>Mod 5: Vac Equip: Pumps and Gauges</b>
<b>Page Numbers:</b>	<b>1-13</b>	<b>14-35</b>	<b>36-52</b>	<b>53-64</b>	<b>66-74</b>
<b>NS.9-12.1: SCIENCE AS INQUIRY</b>					
1.1 abilities necessary to do scientific inquiry	X	X	X	X	X
1.2 understandings about scientific inquiry	X	X	X	X	X
<b>NS.9-12.2: PHYSICAL SCIENCE</b>					
2.1 structure of atoms	X	X		X	X
2.2 structure and properties of matter	X		X	X	X
2.3 chemical reactions				X	X
2.4 motions and forces	X	X	X	X	X
2.5 conservation of energy and increase in disorder			X	X	X
2.6 interactions of energy and matter			X	X	X
<b>NS.9-12.3: LIFE SCIENCE</b>					
3.1 the cell					
3.2 molecular basis of heredity					
3.3 biological evolution					
3.4 interdependence of organisms				X	
3.5 matter, energy, and organization in living systems				X	
3.6 behavior of organisms				X	
<b>NS.9-12.4: EARTH AND SPACE SCIENCE</b>					
4.1 energy in the earth system	X		X	X	
4.2 geochemical cycles				X	
4.3 origin and evolution of the earth system					
4.4 origin and evolution of the universe					
<b>NS.9-12.5: SCIENCE AND TECHNOLOGY</b>					
5.1 abilities of technological design	X	X	X	X	X
5.2 understandings about science and technology	X	X	X	X	X
<b>NS.9-12.6: PERSONAL AND SOCIAL PERSPECTIVES</b>					
6.1 personal and community health				X	
6.2 population growth		X			
6.3 natural resources				X	
6.4 environmental quality				X	
6.5 natural and human-induced hazards				X	
6.6 science and technology in local, national and global challenges	X	X	X	X	X
<b>NS.9-12.7 HISTORY AND NATURE OF SCIENCE</b>					
7.1 science as a human endeavor	X	X	X	X	X
7.2 nature of scientific knowledge	X	X	X	X	X
7.3 historical perspectives	X	X	X	X	X