

**Conceptual Physics © 2009**  
**Correlated to:**  
**Milwaukee Learning Targets for Science**  
**(Grades 9-12)**

<b>WISCONSIN LEARNING TARGETS AND ACADEMIC MODEL CONTENT STANDARDS</b>	<b>PAGE(S) WHERE TAUGHT (If submission is not a text, cite appropriate resource(s))</b>
<b>PHYSICAL SCIENCE</b>	
<b>1. Science Connections</b>	
Connect and integrate the themes of science with understandings about the natural and designed world	<b>SE/TE:</b> 1-7, 37, 60, 72, 91, 96, 107, 112-113, 128, 150, 154, 163, 199, 204, 223, 236, 248, 252, 275, 292, 294, 316, 332, 352, 371, 408, 458, 476, 481, 493, 518, 526, 556, 611, 635, 648, 657, 673, 692, 709, 727, 729, 745, 751, 756, 777, 793, 817
<b>A. Science Connections</b>	
Students in Wisconsin will understand that among the science disciplines, there are unifying themes: systems, order, organization, and interaction; evidence, models, and explanations; constancy, change and measurement; evolution, equilibrium, and energy; and form and function.	<i>The opportunity to address this standard is found on the following pages:</i> <b>SE/TE:</b> 1-7, 37, 96, 107, 112-113, 154, 199, 223, 252, 294, 316, 332, 371, 408, 493, 556, 692
<b>2. Nature of Science</b>	
Investigate examples of science as a human endeavor; research the contribution of science to society; analyze the nature of scientific knowledge and research, describe the important historical events of science	<b>SE/TE:</b> 1-7, 29-35, 88, 108, 163, 204, 233-237, 248, 270-272, 275, 282-286, 367, 373-374, 389-390, 392-393, 440-441, 491, 526, 533-535, 623, 629, 648, 685, 720, 727, 740, 743, 756, 768, 772-773
<b>B. Nature of Science</b>	
Students in Wisconsin will understand that science is ongoing and inventive, and that scientific understandings have changed over time as new evidence is found.	<b>SE/TE:</b> 7, 29-35, 233-234, 270-272, 534-535, 629, 767-773
<b>3. Science Inquiry</b>	
Design, conduct, and evaluate investigations using science language and the processes and understandings of scientific inquiry.	<i>In addition to activities in the lab manual, the opportunity to address this standard is found on the following pages of the text:</i> <b>SE/TE:</b> 2-4
<b>C. Science Inquiry</b>	
Students in Wisconsin will investigate questions using scientific methods and tools, revise their personal understanding to accommodate knowledge, and communicate these understandings to others.	<i>In addition to activities in the lab manual, the opportunity to address this standard is found on the following pages of the text:</i> <b>SE/TE:</b> 12, 32, 45, 46, 55, 67, 68, 75, 86, 88, 97, 105, 106, 109, 124, 132, 143, 144, 147, 169, 170, 173, 179, 188, 190, 200, 211, 212, 215, 231, 232, 253, 262, 267, 282, 302, 324, 326, 344, 352, 364, 369, 381, 382, 387, 403, 406, 409, 419, 430, 433, 435, 436, 449, 455, 467, 468, 471, 478, 490, 494, 513, 514, 531, 532, 539, 544, 554, 559, 563, 577, 578, 582, 590, 601, 602, 615, 621, 622, 627, 632, 641, 644, 701, 719, 739

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<b>4. Physical Science</b>	
Identify the structure of atoms and matter; investigate chemical reactions; apply the principles of motion and force; demonstrate the conservation of energy; explore the interactions of matter and energy	<b>SE/TE:</b> 12-22, 28-39, 46-60, 68-79, 86-97, 106-116, 124-136, 153-154, 155-163, 170-180, 212-225, 262-275, 302-316, 325-337, 345-356, 383-385, 406-422, 430-443, 451-461, 645-657, 766-777, 783-801
<b>D. Physical Science</b>	
Students in Wisconsin will demonstrate an understanding of the physical and chemical properties of matter, the forms and properties of energy, and the ways in which matter and energy interact.	<b>SE/TE:</b> 144-163, 305-306, 322-337, 344-356, 362-374, 382-395, 404-422, 431-443, 450-461, 766-777, 782-801, 808-824
<b>5. Science Applications</b>	
Research careers in science, technology, or engineering; demonstrate abilities of technological design/model building, explain the interdependence of science and technology; research, evaluate, and defend alternative solutions to scientific or technological issues or innovations	<i>In addition to activities in the lab manual, the opportunity to address this standard is found on the following pages of the text:</i> <b>SE/TE:</b> 69, 163, 180, 204, 236, 243, 248, 254, 269, 275, 333, 350, 441, 461, 481, 498, 502, 526, 560, 614, 648, 705, 727, 732, 754, 756, 798, 815
<b>G. Science Applications</b>	
Students in Wisconsin will demonstrate an understanding of the relationship between science and technology and the ways in which that relationship influences human activities.	<b>SE/TE:</b> 5, 91, 163, 204, 236, 248, 275, 292, 476, 518, 526, 611, 648, 673, 709, 727, 729, 745, 751, 756, 793, 817
<b>6. Science in Social and Personal Perspectives</b>	
Practice safety; practice personal and community health; demonstrate resource management; evaluate factors affecting environmental quality; investigate the impact of natural and human-induced hazards; evaluate scientific/technological issues and challenges; apply scientific reasoning and decision making	<i>In addition to activities in the lab manual, the opportunity to address this standard is found on the following pages of the text:</i> <b>SE/TE:</b> 1-7, 161-162, 163, 204, 236, 248, 275, 441-443, 481, 526, 648, 727, 756, 800-801
<b>H. Science in Social and Personal Perspectives</b>	
Students in Wisconsin will use scientific information and skills to make decisions about themselves, Wisconsin, and the world in which they live.	<b>SE/TE:</b> 163, 204, 236, 248, 275, 481, 526, 648, 727, 756