

Macmillan/McGraw-Hill

SCIENCE: A Closer Look
© 2008

Grade 5

Correlated with

Wisconsin
Science Assessment Framework

Grade 8

Macmillan/McGraw-Hill
800-453-2665

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
A. SCIENCE CONNECTIONS		
<i>By the end of Grade 8 students will:</i>	<i>By the beginning of Grade 8 students will:</i>	
A.8.1 Develop their understanding of the science themes by using the themes to frame questions about science-related issues and problems.	A. 8.1 a. Through investigations routinely become involved in activities that improve the ability to use questioning and reasoning skills when investigating science-related issues and problems.	pp. 3, 21, 27, 30-31, 33, 39, 47, 50, 61, 65, 73, 77, 82-83, 89, 92, 99, 107, 110-111, 113, 117, 120-121, 123, 127, 141, 148, 155, 157, 164-165, 167, 171, 183, 189, 192-193, 195, 198, 204-205, 207, 213, 219, 221, 239, 243, 248-249, 251, 255, 261, 265, 268-269, 271, 275, 283, 287, 301, 305, 312-313, 315, 319, 322-323, 325, 329, 341, 349, 363, 369, 376-377, 379, 381, 390-391, 393, 399, 407, 411, 421, 425, 428-429, 431, 435, 441, 447, 457, 466, 468-469, 479, 483, 486-487, 489, 493, 503, 507, 512-513, 519, 523, 526-527, 529, 533, 538-539, 541, 547, 553, 557, 571, 575, 583, 589, 594-595, 597, 601, 604-605, 607, 611, 625, 631, 634-635, 637, 641, 648-649, 651, 659, 665, 669, 677, 681, 686-687
A.8.2 Describe limitations of science systems and give reasons why specific science themes are included in or excluded from those systems.	A.8.2 a. Apply science themes while making connections among the earth and space, life and environmental, and physical sciences.	pp. 47, 120-121, 183, 195, 207, 219, 283, 322-323, 363, 407, 457, 519
A.8.3 Defend explanations and models by collecting and organizing evidence that supports them and critique explanations and models by collecting and organizing evidence that conflicts with them.	A.8.3 a. Examine and evaluate data sets from multiple perspectives which can lead to several possible conclusions by emphasizing the themes of evidence (data), explanation, and models.	pp. 82-83, 192-193, 538-539

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
<p>A.8.4 Collect evidence to show that models developed as explanations for events were (and are) based on the evidence available to scientists at the time.</p>	<p>A.8.4 a. Based on historical and/or current scientific data and evidence, design a model to explain an event. <i>Examples: geocentric theory, flat earth, medical techniques, simulations; such as, wind tunnels, stream tables...</i></p>	<p>pp. 12, 27, 73, 117, 198, 248-249, 251, 255, 265, 268, 275, 287, 369, 399, 411, 431, 435, 441, 447, 457, 466, 468, 483, 493, 648</p>
<p>A.8.5 Show how models and explanations, based on systems, were changed as new evidence accumulated (the effects of constancy, evolution, change, and measurement should all be part of these explanations).</p>	<p>A.8.5 a. Emphasize the themes of change, constancy, models, explanation, evolution, change, and measurement to examine historical and current scientific thought and the nature of science using models and explanations. <i>Examples geocentric theory, flat earth, medical techniques, scientific tools...</i></p>	<p>pp. 22, 42, 79, 216-217, 256, 290, 293, 446, 454-455, 490, 491, 495, 500-501, 580-581, 674-675</p>
<p>A.8.6 Use models and explanations to predict actions and events in the natural world.</p>	<p>A.8.6 a. Emphasize the themes of change, models, explanation, and systems to employ conceptual and/or physical models and explanations to predict actions and events in the natural world. <i>Examples: Plate tectonics, succession, weather data/maps and weather events...</i></p>	<p>pp. 13, 107, 164-165, 195, 207, 507, 523, 533, 553, 631, 641, 665</p>
<p>A.8.7 Design real or thought investigations to test the usefulness and limitations of a model.</p>	<p>A.8.7 a. Design, assess, and evaluate scientific models through group discussions.</p>	<p>pp. 12, 27, 73, 117, 198, 248-249, 251, 255, 265, 268, 275, 287, 369, 399, 411, 431, 435, 441, 447, 457, 466, 468, 483, 493, 648</p>

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
A.8.8 Use the themes of evolution, equilibrium, and energy to predict future events or changes in the natural world.	A.8.8 a. Make connections among earth and space, life and environmental, and physical sciences through the unifying themes of change, evolution, equilibrium, and energy in the natural world in order to predict future events. <i>Examples: Investigate and predict what evolutionary changes might occur if our sun completed its life cycle; examine smaller systems such as unbalanced forces on a see-saw or coiled spring; study the elimination of one component in a food chain or web and examine its impacts...</i>	pp. 164-165, 207, 533, 631, 641
B. NATURE OF SCIENCE		
<i>By the end of Grade 8 students will:</i>	<i>By the beginning of Grade 8 students will:</i>	
B.8.1 Describe how scientific knowledge and concepts have changed over time in the earth and space, life and environmental, and physical sciences.	B.8.1 a. Relate historical perspectives to one or more major science concepts. <i>Examples: Models of solar system, evolution, cell theory, germ theory and disease, genetics...</i>	pp. 43, 216-217, 442, 443, 454-455, 500-501, 586, 673, 674-675
	b. Show how the work of scientists has changed throughout history. <i>Examples: alchemy - modern chemistry; Galileo's telescope - Hubble telescope, space travel...</i>	pp. 22, 79, 204, 446, 490, 491, 495, 499, 515, 580-581, 586, 588, 589, 590, 591, 592, 593
B.8.2 Identify and describe major changes that have occurred over time in conceptual models and explanations in the earth and space, life and environmental, and physical sciences and identify the people, cultures, and conditions that led to these developments.	B.8.2 a. Routinely incorporate multicultural historical events that have contributed to the development of science over time.	pp. 43, 216-217, 442, 443, 454-455, 500-501, 586, 673, 674-675

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
<p>B.8.3 Explain how the general rules of science apply to the development and use of evidence in science investigations, model-making, and applications.</p>	<p>B.8.3 a. Distinguish between common and scientific use of the word theory.</p>	<p>pp. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12-13</p>
	<p>b. Study how evidence and peer review are hallmarks of scientific thought.</p>	<p>pp. 3, 21, 27, 30-31, 33, 39, 47, 50, 61, 65, 73, 77, 82-83, 89, 92, 99, 107, 110-111, 113, 117, 120-121, 123, 127, 141, 148, 155, 157, 164-165, 167, 171, 183, 189, 192-193, 195, 198, 204-205, 207, 213, 219, 221, 239, 243, 248-249, 251, 255, 261, 265, 268-269, 271, 275, 283, 287, 301, 305, 312-313, 315, 319, 322-323, 325, 329, 341, 349, 363, 369, 376-377, 379, 381, 390-391, 393, 399, 407, 411, 421, 425, 428-429, 431, 435, 441, 447, 457, 466, 468-469, 479, 483, 486-487, 489, 493, 503, 507, 512-513, 519, 523, 526-527, 529, 533, 538-539, 541, 547, 553, 557, 571, 575, 583, 589, 594-595, 597, 601, 604-605, 607, 611, 625, 631, 634-635, 637, 641, 648-649, 651, 659, 665, 669, 677, 681, 686-687</p>
	<p>c. Discuss the development of a scientific theory as an explanation that has been robustly tested and supported through several lines of evidence.</p>	<p>pp. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12-13</p>

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	d. Explain the use of evidence and peer review in establishing scientific thought.	pp. 3, 21, 27, 30-31, 33, 39, 47, 50, 61, 65, 73, 77, 82-83, 89, 92, 99, 107, 110-111, 113, 117, 120-121, 123, 127, 141, 148, 155, 157, 164-165, 167, 171, 183, 189, 192-193, 195, 198, 204-205, 207, 213, 219, 221, 239, 243, 248-249, 251, 255, 261, 265, 268-269, 271, 275, 283, 287, 301, 305, 312-313, 315, 319, 322-323, 325, 329, 341, 349, 363, 369, 376-377, 379, 381, 390-391, 393, 399, 407, 411, 421, 425, 428-429, 431, 435, 441, 447, 457, 466, 468-469, 479, 483, 486-487, 489, 493, 503, 507, 512-513, 519, 523, 526-527, 529, 533, 538-539, 541, 547, 553, 557, 571, 575, 583, 589, 594-595, 597, 601, 604-605, 607, 611, 625, 631, 634-635, 637, 641, 648-649, 651, 659, 665, 669, 677, 681, 686-687
	e. Recognize that a hypothesis is a prediction based on previous information.	pp. 5, 12, 287, 349, 634-635
	f. Explain ways to make a scientific investigation valid. <i>Examples: the use of multiple trials, control, one independent variable, dependent variable, and constants...</i>	pp. 3, 21, 33, 47, 61, 73, 89, 99, 113, 123, 141, 155, 167, 183, 195, 207, 219, 239, 251, 261, 271, 283, 301, 315, 325, 341, 363, 379, 393, 407, 421, 431, 441, 457, 479, 489, 503, 519, 529, 541, 553, 571, 583, 597, 607, 625, 637, 651, 665, 677

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
<p>B.8.4 Describe types of reasoning and evidence used outside of science to draw conclusions about the natural world.</p>	<p>B.8.4 a. Show how non-scientific evidence can lead to non-scientific conclusions about the natural world. <i>Examples: fad diets, television advertisements, information read in a newspaper ad...</i></p>	<p>Refer to Grades 7 and 8.</p>
	<p>b. Demonstrate how science and scientific evidence can assist with making a decision. <i>Examples: whether to recycle, selecting a location for a house...</i></p>	<p>pp. 2-11, 12-13, 190, 675</p>
<p>B.8.5 Explain ways in which science knowledge is shared, checked, and extended, and show how these processes change over time.</p>	<p>B.8.5 a. Demonstrate how science knowledge is shared, replicated, and extended by scientists through peer review, journals, databases, and student presentations.</p>	<p>pp. 12, 21, 27, 33, 61, 82-83, 92, 120-121, 123, 141, 192-193, 198, 207, 221, 239, 265, 268-269, 305, 322-323, 341, 363, 376-377, 390-391, 407, 457, 468-469, 487, 489, 493, 503, 512-513, 519, 538-539, 553, 571, 597, 604-605, 607, 648-649, 686-687</p>
<p>B.8.6 Explain the ways in which scientific knowledge is useful and also limited when applied to social issues.</p>	<p>B.8.6 a. Demonstrate and communicate how science and scientific evidence can assist with making an informed decision.</p>	<p>pp. 3, 21, 30-31, 33, 47, 61, 73, 82-83, 89, 99, 110-111, 113, 120-121, 123, 141, 155, 164-165, 167, 183, 192-193, 195, 204-205, 207, 219, 239, 248-249, 251, 261, 268-269, 271, 283, 301, 312-313, 315, 322-323, 325, 341, 363, 376-377, 379, 390-391, 393, 407, 421, 428-429, 431, 441, 457, 468-469, 479, 486-487, 489, 503, 512-513, 519, 526-527, 529, 538-539, 541, 553, 571, 583, 594-595, 597, 604-605, 607, 625, 634-635, 637, 648-649, 651, 665, 677, 686-687</p>

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	b. Know the limitations that are associated with using science or scientific knowledge to solve a real world problem or issue.	pp. 42, 130-131, 203, 215, 319
	c. Understand the impact on society when making a decision.	pp. 130-131, 319, 326, 347, 348, 672
C. SCIENCE INQUIRY		
<i>By the end of Grade 8 students will:</i>	<i>By the beginning of Grade 8 students will:</i>	
C.8.1 Identify questions they can investigate using resources and equipment they have available.	C.8.1 a. Identify questions that can be answered with available equipment, resources, scientific tools, logical reasoning, and/or dichotomous keys.	pp. 3, 21, 27, 30-31, 33, 39, 47, 50, 61, 65, 73, 77, 82-83, 89, 92, 99, 107, 110-111, 113, 117, 120-121, 123, 127, 141, 148, 155, 157, 164-165, 167, 171, 183, 189, 192-193, 195, 198, 204-205, 207, 213, 219, 221, 239, 243, 248-249, 251, 255, 261, 265, 268-269, 271, 275, 283, 287, 301, 305, 312-313, 315, 319, 322-323, 325, 329, 341, 349, 363, 369, 376-377, 379, 381, 390-391, 393, 399, 407, 411, 421, 425, 428-429, 431, 435, 441, 447, 457, 466, 468-469, 479, 483, 486-487, 489, 493, 503, 507, 512-513, 519, 523, 526-527, 529, 533, 538-539, 541, 547, 553, 557, 571, 575, 583, 589, 594-595, 597, 601, 604-605, 607, 611, 625, 631, 634-635, 637, 641, 648-649, 651, 659, 665, 669, 677, 681, 686-687

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	b. Determine which is the most logical equipment to use when answering a question in science.	pp. 21, 47, 65, 73, 82, 89, 110-111, 120-121, 141, 167, 171, 189, 192-193, 195, 207, 219, 243, 248-249, 255, 268-269, 271, 283, 287, 301, 305, 315, 319, 322-323, 341, 349, 363, 376-377, 379, 390-391, 393, 421, 425, 431, 435, 441, 447, 457, 468-469, 479, 489, 503, 507, 512-513, 519, 526-527, 529, 538-539, 541, 553, 571, 575, 583, 594-595, 595, 601, 604-605, 607, 611, 625, 631, 634-635, 637, 641, 648-649, 651, 665, 669, 677, 681, 686-687, R2, R3, R4, R5, R6, R22
	c. Determine if the questions asked are testable.	pp. 82-83, 120-121, 192-193, 268-269, 322-323, 390-391, 468-469, 512-513, 538-539, 604-605, 648-649, 686-687
C.8.2 Identify data and locate sources of information including their own records to answer the questions being investigated.	C.8.2 a. Identify sources of data.	pp. 192, 315, 329, 363, 379, 390, 421
	b. Determine and explain which is the most logical data needed to answer a scientific question.	pp. 13, 21, 39, 47, 82, 89, 113, 123, 127, 193, 195, 204-205, 243, 283, 319, 363, 379, 407, 441, 519, 529, 538, 541, 575, 583, 597, 611, 625, 637, 651, 665, 677, 681

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
<p>C.8.3 Design and safely conduct investigations that provide reliable quantitative or qualitative data, as appropriate, to answer their questions.</p>	<p>C.8.3 a. Design an investigation that will answer a scientifically testable question.</p>	<p>pp. 3, 21, 33, 47, 61, 73, 82-83, 89, 99, 113, 120-121, 123, 141, 155, 167, 183, 192-193, 195, 207, 219, 239, 251, 261, 268-269, 271, 283, 301, 315, 322-323, 325, 341, 363, 379, 390-391, 393, 407, 421, 431, 441, 457, 468-469, 479, 489, 503, 512-513, 519, 529, 538-539, 541, 553, 571, 583, 597, 604-605, 607, 625, 637, 648-649, 651, 665, 677, 686-687</p>
	<p>b. Conduct experiments that will generate both qualitative and quantitative data.</p>	<p>pp. 192, 315, 329, 363, 379, 390, 421</p>
	<p>c. Emphasize appropriate safety measures in all scientific investigations.</p>	<p>pp. 3, 21, 27, 30-31, 33, 39, 47, 50, 61, 65, 73, 77, 82-83, 89, 92, 99, 107, 110-111, 113, 117, 120-121, 123, 127, 141, 148, 155, 157, 164-165, 167, 171, 183, 189, 192-193, 195, 198, 204-205, 207, 213, 219, 221, 239, 243, 248-249, 251, 255, 261, 265, 268-269, 271, 275, 283, 287, 301, 305, 312-313, 315, 319, 322-323, 325, 329, 341, 349, 363, 369, 376-377, 379, 381, 390-391, 393, 399, 407, 411, 421, 425, 428-429, 431, 435, 441, 447, 457, 466, 468-469, 479, 483, 486-487, 489, 493, 503, 507, 512-513, 519, 523, 526-527, 529, 533, 538-539, 541, 547, 553, 557, 571, 575, 583, 589, 594-595, 597, 601, 604-605, 607, 611, 625, 631, 634-635, 637, 641, 648-649, 651, 659, 665, 669, 677, 681, 686-687</p>

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
<p>C.8.4 Use inferences to help decide possible results of their investigations, use observations to check their inferences.</p>	<p>C.8.4 a. Decide what are the most logical results for an investigation.</p>	<p>pp. 13, 33, 50, 61, 65, 73, 77, 89, 99, 113, 117, 121, 123, 141, 155, 157, 167, 171, 183, 189, 195, 207, 213, 219, 239, 251, 261, 269, 271, 283, 301, 322, 325, 349, 393, 407, 411, 441, 457, 483, 486-487, 489, 507, 513, 523, 529, 557, 583, 589, 597, 601, 607, 625, 631, 637, 641, 649, 669, 687</p>
	<p>b. Verify (either accept or reject) the decided results through experimentation.</p>	<p>pp. 10, 11, 21, 33, 47, 61, 73, 82, 83, 89, 99, 113, 121, 123, 141, 148, 155, 167, 183, 193, 195, 207, 219, 239, 251, 261, 269, 271, 283, 287, 301, 315, 322, 323, 325, 341, 363, 379, 391, 393, 407, 421, 431, 441, 457, 469, 479, 489, 503, 513, 519, 529, 538-539, 541, 553, 571, 583, 597, 605, 607, 625, 637, 649, 651, 665, 677, 687</p>
<p>C.8.5 Use accepted scientific knowledge, models, and theories to explain their results and to raise further questions about their investigations.</p>	<p>C.8.5 a. Compare the results to known science concepts, models, or theories to determine the accuracy of their results.</p>	<p>pp. 82-83, 120-121, 192-193, 268-269, 322-323, 390-391, 468-469, 512-513, 538-539, 604-605, 648-649, 686-687</p>
	<p>b. Raise further questions after making comparisons of experimental results to known science understandings.</p>	<p>pp. 82-83, 120-121, 192-193, 268-269, 322-323, 390-391, 468-469, 512-513, 538-539, 604-605, 648-649, 686-687</p>

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
<p>C.8.6 State what they have learned from their investigations, relating their inferences to scientific knowledge and to data they have collected.</p>	<p>C.8.6 a. Explain the results of an investigation to others using multiple forms of communication such as oral presentation or written report.</p>	<p>pp. 12, 21, 27, 33, 61, 92, 123, 141, 193, 198, 207, 221, 239, 265, 269, 305, 323, 341, 363, 376-377, 407, 457, 487, 489, 493, 503, 519, 553, 571, 597, 607, 687</p>
	<p>b. Use collected data to support and explain scientific inferences.</p>	<p>pp. 13, 33, 50, 61, 65, 73, 77, 89, 99, 113, 117, 121, 123, 141, 155, 157, 167, 171, 183, 189, 195, 207, 213, 219, 239, 251, 261, 269, 271, 283, 301, 322, 325, 349, 393, 407, 411, 441, 457, 483, 486-487, 489, 507, 513, 523, 529, 557, 583, 589, 597, 601, 607, 625, 631, 637, 641, 649, 669, 687</p>
	<p>c. Explain their results by using the scientific concepts being learned.</p>	<p>pp. 13, 33, 50, 61, 65, 73, 77, 89, 99, 113, 117, 121, 123, 141, 155, 157, 167, 171, 183, 189, 195, 207, 213, 219, 239, 251, 261, 269, 271, 283, 301, 322, 325, 349, 393, 407, 411, 441, 457, 483, 486-487, 489, 507, 513, 523, 529, 557, 583, 589, 597, 601, 607, 625, 631, 637, 641, 649, 669, 687</p>
<p>C.8.7 Explain their data and conclusions in ways that allow an audience to understand the questions they selected for investigation and the answers they have developed.</p>	<p>C.8.7 a. Communicate the results to others, and communicate the results in ways others can understand. <i>Examples: understandable data, quantitative summary, clear presentation, use of visual aids...</i></p>	<p>pp. 12, 21, 27, 33, 61, 92, 123, 141, 193, 198, 207, 221, 239, 265, 269, 305, 323, 341, 363, 376-377, 407, 457, 487, 489, 493, 503, 519, 553, 571, 597, 607, 687</p>

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	b. Routinely incorporate and discuss the use of appropriate graphical representations of data.	pp. 21, 30-31, 33, 39, 50, 61, 65, 82-83, 92, 99, 107, 110-111, 113, 120-121, 123, 141, 157, 164-165, 171, 195, 198, 204-205, 243, 248-249, 275, 301, 312-313, 329, 341, 363, 376-377, 379, 381, 390-391, 407, 411, 421, 428-429, 441, 468-469, 486-487, 493, 503, 512-513, 519, 526-527, 529, 553, 575, 594-595, 631, 634-635, 686-687
C.8.8 Use computer software and other technologies to organize, process, and present their data.	C.8.8 a. Use equipment and/or computer software for their data that allows the students to present logical and reasoned results to others; equipment may include computers, probe ware, microscope, or telescope.	pp. 3, 7, 12, 21, 33, 73, 82-83, 92, 113, 189, 195, 219, 243, 261, 363, 519, R5, R6, R7
C.8.9: Evaluate, explain, and defend the validity of questions, hypotheses, and conclusions to their investigations.	C.8.9 a. Using collected data, defend the validity of the experimental design and results.	pp. 5, 10, 11, 12, 21, 33, 47, 61, 73, 82, 83, 89, 99, 113, 121, 123, 141, 148, 155, 167, 183, 193, 195, 207, 219, 239, 251, 261, 269, 271, 283, 287, 301, 315, 322, 323, 325, 341, 349, 363, 379, 391, 393, 407, 421, 431, 441, 457, 469, 479, 489, 503, 513, 519, 529, 538-539, 541, 553, 571, 583, 597, 605, 607, 625, 634-635, 637, 649, 651, 665, 677, 687

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
<p>C.8.10 Discuss the importance of their results and implications of their work with peers, teachers, and other adults.</p>	<p>C.8.10 a. Regularly discuss the results and implications of an investigation within the classroom with peers, teachers, and other adults.</p>	<p>pp. 3, 21, 27, 30-31, 33, 39, 47, 50, 61, 65, 73, 77, 82-83, 89, 92, 99, 107, 110-111, 113, 117, 120-121, 123, 127, 141, 148, 155, 157, 164-165, 167, 171, 183, 189, 192-193, 195, 198, 204-205, 207, 213, 219, 221, 239, 243, 248-249, 251, 255, 261, 265, 268-269, 271, 275, 283, 287, 301, 305, 312-313, 315, 319, 322-323, 325, 329, 341, 349, 363, 369, 376-377, 379, 381, 390-391, 393, 399, 407, 411, 421, 425, 428-429, 431, 435, 441, 447, 457, 466, 468-469, 479, 483, 486-487, 489, 493, 503, 507, 512-513, 519, 523, 526-527, 529, 533, 538-539, 541, 547, 553, 557, 571, 575, 583, 589, 594-595, 597, 601, 604-605, 607, 611, 625, 631, 634-635, 637, 641, 648-649, 651, 659, 665, 669, 677, 681, 686-687</p>
	<p>b. Verify the accuracy of the science concepts being presented.</p>	<p>pp. 3, 21, 27, 30-31, 33, 39, 47, 50, 61, 65, 73, 77, 82-83, 89, 92, 99, 107, 110-111, 113, 117, 120-121, 123, 127, 141, 148, 155, 157, 164-165, 167, 171, 183, 189, 192-193, 195, 198, 204-205, 207, 213, 219, 221, 239, 243, 248-249, 251, 255, 261, 265, 268-269, 271, 275, 283, 287, 301, 305, 312-313, 315, 319, 322-323, 325, 329, 341, 349, 363, 369, 376-377, 379, 381, 390-391, 393, 399, 407, 411, 421, 425, 428-429, 431, 435, 441, 447, 457, 466, 468-469, 479, 483, 486-487, 489, 493, 503, 507, 512-513, 519,</p>

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	b. Verify the accuracy of the science concepts being presented. (continued)	523, 526-527, 529, 533, 538-539, 541, 547, 553, 557, 571, 575, 583, 589, 594-595, 597, 601, 604-605, 607, 611, 625, 631, 634-635, 637, 641, 648-649, 651, 659, 665, 669, 677, 681, 686-687
C.8.11 Raise further questions which still need to be answered.	C.8.11 a. Generate new questions about existing experiments that reflect upon new science understandings.	pp. 21, 33, 47, 61, 73, 89, 99, 113, 123, 141, 155, 167, 183, 195, 207, 219, 239, 251, 261, 271, 283, 301, 315, 325, 341, 363, 379, 393, 407, 421, 431, 441, 457, 479, 489, 503, 519, 529, 541, 553, 571, 583, 597, 607, 625, 637, 651, 665, 677
D. PHYSICAL SCIENCE		
<i>By the end of Grade 8 students will:</i>	<i>By the beginning of Grade 8 students will:</i>	
Properties and Changes of Properties in Matter		
D.8.1 Observe, describe, and measure physical and chemical properties of elements and other substances to identify and group them according to properties such as density, melting points, boiling points, conductivity, magnetic attraction, solubility, and reactions to common physical and chemical tests.	D.8.1 a. Observe chemical and physical properties of a substance.	pp. 478, 479, 480, 481, 482, 483, 484, 485, 486-487, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500-501, 502-511, 512-513, 514, 515, 530-533, 536, TR56, TR57
	b. Measure chemical and physical properties of a substance.	pp. 479, 481, 483, 484, 486, 489, 512-513, 519, 523, 526-527
	c. Classify substances using chemical and physical properties. <i>Examples: density, melting points, boiling points, conductivity, magnetic attraction, and solubility...</i>	pp. 478, 479, 480, 481, 482, 483, 484, 485, 486-487, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500-501, 502-511, 512-513, 514, 515, 530-533, 536, TR56, TR57

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	d. Differentiate between chemical and physical properties based on observation of physical and chemical changes.	pp. 516D, 516, 518, 519, 520, 521, 522, 523, 525, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 562, 563, TR59
D.8.2 Use the major idea of atomic theory and molecular theory to describe physical and chemical interactions among substances, including solids, liquids, and gases.	D.8.2 a. Explain that all matter is composed of atoms.	pp. 491, 492, 493, 498, 499, 514
	b. Describe that matter is in constant motion.	pp. 484, 520, 523
	c. Explain that changes of state are related to energy changes.	pp. 520, 521, 522, 523, 525
D.8.3 Understand how chemical interactions and behaviors lead to new substances with different properties.	D.8.3 a. Investigate common chemical reactions emphasizing the differing properties of reactants and products. <i>Examples of reactions: acid/base, oxidation, or combustion...</i>	pp. 541, 542, 544, 545, 546, 547, 548, 549, 553, 554, 555, 562
D.8.4 While conducting investigations, use the science themes to develop explanations of physical and chemical interactions and energy changes.	D.8.4 a. Conduct investigations and apply science themes to explain physical and chemical changes. <i>Examples: rusting – change, balancing reactions – constancy...</i>	pp. 519, 521, 541, 547, 563
Motions and Forces		
D.8.5 While conducting investigations, explain the motion of objects by describing the forces acting on them.	D.8.5 a. Conduct investigations which study how balanced and unbalanced forces act on objects either in motion or at rest.	pp. 584, 585, 588, 589, 590, 591, 593, 594-595, 620, 621, TR60

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
D.8.6 While conducting investigations, explain the motion of objects using the concepts of speed, velocity, acceleration, friction, momentum, and changes over time, among others, and apply these concepts and explanations to real-life situations outside the classroom.	D.8.6 a. Demonstrate a conceptual understanding of motion by conducting investigations of speed, velocity, acceleration, friction, and momentum.	pp. 571, 575, 595-596
	b. Investigate speed and velocity through their graphical representations and mathematical relationships.	pp. 571, 575, 579, 595-596
	c. Apply these concepts to real-life situations.	pp. 575, 576, 577, 587
D.8.7 While conducting investigations of common physical and chemical interactions occurring in the laboratory and the outside world, use commonly accepted definitions of energy and the idea of energy conservation.	D.8.7 a. Describe kinetic and potential energy.	pp. 597, 600, 601, 604-605, 620
	b. Explain what happens to an object as the object's energy changes from potential and kinetic energy and vice versa.	pp. 600, 601, 604-605, 620
	c. Understand that energy can neither be created nor destroyed; it is transformed among heat, light, sound, mechanical, chemical, nuclear, and electrical energy.	pp. 602, 603

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
Transfer of Energy		
D.8.8 Describe and investigate the properties of light, heat, gravity, radio waves, magnetic fields, electrical fields, and sound waves as they interact with material objects in common situations.	D.8.8 a. Describe and explain the properties of light (reflection, absorption, refraction), sound (wave behavior and motion through various media), heat transfer (conduction, convection, radiation), electricity (transfer through circuits) magnetism (magnetic fields) and gravity.	pp. 604, 605, 624-633, 634-635, 636-647, 648-649, 650-661, 662, 663, 664-673, 674-675, 676-685, 686-687, 688, 689
D.8.9 Explain the behaviors of various forms of energy by using the models of energy transmission, both in the laboratory and in real-life situations.	D.8.9 a. Identify the various forms of energy using models of energy transmission.	Opportunity to address: p. 601 Refer also to Grade 6.
	b. Investigate energy transformations. <i>Examples: home energy diagrams, combustion cycle in a car...</i>	Opportunity to address: p. 602 Refer also to Grade 6.
D.8.10 Explain how models of the atomic structure of matter have changed over time, including historical models and modern atomic theory.	D.8.10 a. Compare historical atomic models to current atomic models.	pp. 491, 492
	b. Explain how increased scientific knowledge led to changes in historical models of the atom.	pp. 491, 492
	c. Explain how increased understandings about the atom have led to the development of current atomic models.	pp. 491, 492
	d. Explain the limitations of current atomic models.	Opportunities to address: pp. 492, 493 Refer also to Grade 6.

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
E. EARTH AND SPACE SCIENCE		
<i>By the end of Grade 8 students will:</i>	<i>By the beginning of Grade 8 students will:</i>	
Structure of Earth System		
E.8.1 Using the science themes, explain and predict changes in major features of land, water, and atmospheric systems.	E.8.1 a. Use the themes of systems, change, and organization to describe and explain how land forms are a result of a combination of constructive and destructive forces and how these factors contribute to the forming and changing of earth and its atmosphere. (Constructive forces include crustal deformation, volcanic eruption, and deposition of sediment, while destructive forces include weathering and erosion.)	pp. 236D, 238, 239, 240, 241, 242, 243, 244, 245, 250, 251, 254, 255, 256, 257, 260, 261, 262, 263, 264, 265, 266, 267, 268-269, 282, 283, 284, 285, 286, 287, 288, 289, 291, 292, 293, 296, 297, 404
E.8.2 Describe underlying structures of earth that cause changes in the earth's surface.	E.8.2 a. Describe the layers of earth. <i>Examples: crust, mantle, core...</i>	pp. 246, 247, 296
	b. Describe how movement of plates within the earth result in major geological events. <i>Examples: volcanoes, earthquakes, mountain building...</i>	pp. 250, 251, 252, 253, 254, 255, 256, 257, 258, 262, 263, 264, 265, 266, 267, 268-269, 271, 272, 273, 274, 275, 276, 277, 279, 280, 281, 296, 297
E.8.3 Using the science themes during investigations, describe climate, weather, ocean currents, soil movements and changes in the forces acting on the earth.	E.8.3 a. Emphasize the themes of change, systems, and models to investigate how uneven distribution of solar energy causes convection (of water and air) which influences climate, weather, and ocean currents.	p. 628 For Support: 410, 411, 412, 413
	b. Explore and investigate patterns of soil movement.	pp. 286, 287, 288, 289, 290, 291, 292, 293, 320

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
E.8.4 Using the science themes, analyze the influence living organisms have had on the earth's systems, including their impact on the composition of the atmosphere and the weathering of rocks.	E.8.4 a. Study the effects of living organisms, including humans, on the composition of earth's atmosphere and earth's systems. <i>Examples: global warming, acid rain, and ozone layer depletion...</i>	pp. 215, 227, 284, 316, 317, 348, 349, 350, 351, 354, 408, 409
Earth's History		
E.8.5 Analyze the geologic and life history of the earth, including change over time, using various forms of scientific evidence.	E.8.5 a. Use geologic evidence to establish the history of earth. <i>Examples: Atmospheric composition, changes in earth's surface, fossil evidence, relative age and type of rocks...</i>	pp. 239, 252, 253, 256, 258, 266, 267, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312-313, 326, 327, 328, 329, 337
E.8.6 Describe through investigations the use of the earth's resources by humans in both past and current cultures, particularly how changes in the resources used for the past 100 years are the basis for the efforts to conserve and recycle renewable and nonrenewable resources.	E.8.6 a. Investigate how humans have used renewable and non-renewable natural resources through history. <i>Examples: Water, rocks and minerals, fossil fuels, and solar energy...</i>	pp. 190, 234-235, 298D, 308, 309, 310, 311, 314, 318, 319, 320, 321, 324, 325, 326, 327, 330, 331, 332, 333, 334, 335, 336, 337, 340, 341, 344, 345, 346, 347, 348, 349, 350, 351, 352-353, 354, 355,
	b. Recognize relationships and patterns in human resource use through data collection and analysis. <i>Example: long-term consequences of overuse...</i>	pp. 325, 327, 330, 333, 336, 337, 341, 346, 348, 350, 351
	c. Develop strategies for the conservation of resources.	pp. 190, 226, 227, 228, 320, 321, 324, 325, 326, 332, 333, 334, 335, 336, 337, 342, 346, 347, 350, 351, 355

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
Earth in the Solar System		
E.8.7 Describe the general structure of the solar system, galaxies, and the universe, explaining the nature of the evidence used to develop current models of the universe.	E.8.7 a. Recognize that the sun is a star in our solar system.	pp. 427, 440, 444, 459, 460, 467
	b. Recognize that there are many different stars, and they have different properties.	pp. 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 470, 471
	c. Research gravity's role in holding together the solar system.	pp. 420, 421, 422, 423
	d. Study and analyze data from various sources to support or further understand current models of our solar system. <i>Examples: optical and radio-telescopes, computer models, space probes....</i>	pp. 442, 443, 452, 454-455, 464, 465, 466, 471, 472
	e. Use models competently to represent solar system, galaxies, and universe.	pp. 425, 426, 427, 431, 437, 440, 441, 444, 445, 447
E.8.8 Using past and current models of the structure of the solar system, explain the daily, monthly, yearly, and long-term cycles of the earth, citing evidence gained from personal observation as well as evidence used by scientists.	E.8.8 a. Research, using models, how objects in the solar system have regular and predictable orbits and motion.	pp. 418D, 424, 425, 426, 427, 428-429, 430, 431, 432, 433, 434, 435, 436, 437, 444-445, 453, 470, 471, TR54, TR55
	b. Recognize that the tilt of the earth on its axis as it revolves around the sun causes seasons.	pp. 424, 425, 426, 427, 471
	c. Explain that rotation of the earth on its axis causes day and night.	pp. 426, 427, 470

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	d. Explore historical models of the solar system <i>Example: geocentric model...</i>	pp. 442, 444, 445
F. LIFE AND ENVIRONMENTAL SCIENCE		
<i>By the end of Grade 8 students will:</i>		
<i>By the beginning of Grade 8 students will:</i>		
Structure and Function in Living Things		
F.8.1 Understand the structure and function of cells, organs, tissues, organ systems, and whole organisms.	F.8.1 a. Understand that organisms are composed of cells and that cells are the basic unit of life.	pp. 21, 22, 23, 24, 26, 29
	b. Explore cell components, including different components of plant and animal cells.	pp. 24, 25, 26, 27, 29, 30, 31, 85
	c. Apply cell specialization to the organization of tissues, organs, systems, and organisms in both plants and animals (photosynthesis and respiration on a conceptual level).	pp. 23, 25, 28, 29, 48-56, 57, 58, 84, 85
	d. Explain how major systems within organism interact.	pp. 6, 47, 50, 51, 52, 53, 54, 55, 57, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 88-95, 96, 97, 98-109, 110-111, 114-119, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, TR41
F.8.2 Show how organisms have adapted structures to match their functions, providing means of encouraging individual and group survival within specific environments.	F.8.2 a. Compare form and function of various organisms' adaptations as related to their environments.	pp. 80, 81, 158, 159, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 213

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	b. Investigate natural selection.	Opportunities to address: pp. 166-175 Refer also to Grade 6.
F.8.3 Differentiate between single-celled and multiple-celled organisms (including humans) through investigation, comparing the cell functions of specialized cells for each type of organism.	F.8.3 a. Investigate a variety of cells using microscopes and illustrations. <i>Examples: single-celled, multi-celled organisms, plant and animal cells...</i>	pp. 20, 21, 22, 23, 24, 25, 26, 27, 30-31, 44, 85
	b. Present conceptual understandings of differences between single-celled and multiple-celled organisms.	pp. 23, 25, 28, 29, 40, 41, 43
	c. Compare and contrast structure and function of specialized cells. <i>Examples: muscle, nerve, blood cells in animals, photosynthetic cells in plants...</i>	pp. 23, 25, 28, 29, 48-56, 57, 58, 84, 85
Reproduction and Heredity		
F.8.4 Investigate and explain that heredity is comprised of the characteristic traits found in genes within the cells of an organism.	F.8.4 a. Investigate basic genetics including Mendel's theories, Punnett squares, and predictions of possible offspring.	pp. 122, 123, 124, 125, 126, 127, 128, 129, 130-131, 132, 133
	b. Understand that genes determine traits.	pp. 122-130, 132, 133
F.8.5 Show how different structures both reproduce and pass on characteristics of their group.	F.8.5 a. Study sexual and asexual reproduction with emphasis on the advantages and disadvantages of each.	pp. 88, 89, 91, 91, 92, 93, 94, 95, 96, 97, 99, 100-108, 109, 113, 114-118, 119, 120-121, 132, 133

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
Regulation and Behavior		
F.8.6 Understand that an organism is regulated both internally and externally.	F.8.6 a. Investigate external/internal stimuli on organisms using themes of equilibrium and constancy. Examples: Stimulus/response, feedback loop, diffusion/osmosis within cells, body temperature regulation...	pp. 80 For Support: 167, 169, 175
F.8.7 Understand that an organism's behavior evolves through adaptation to its environment.	F.8.7 a. Study an organism's behavioral modifications to their environment. <i>Examples: hibernation, fluffing feathers, migration, nesting, shivering, huddling, herding, caring for young...</i>	pp. 80, 81, 158, 159, 166-175, 213
Populations and Ecosystems		
F.8.8 Show through investigations how organisms both depend on and contribute to the balance or imbalance of populations and/or ecosystems, which in turn contribute to the total system of life on the planet.	F.8.8 a. Investigate interactions within various ecosystems and their components (including non-living).	pp. 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164-165, 184, 185, 186, 187, 188, 189, 190, 191, 192-193
	b. Analyze population fluctuations and energy flow in ecosystems.	pp. 150, 155, 156, 157, 158, 159, 163, 164-165, 178, 179, 191, 216-217, 221, 222, 223, 224, 227, 230
Diversity and Adaptations of Organisms		
F.8.9 Explain how some of the changes on the earth are contributing to changes in the balance of life and affecting the survival or population growth of certain species.	F.8.9 a. Investigate environmental problems. <i>Examples: invasive species, extinction, overpopulation, degradation of habitat, exceeding carrying capacity, drought...</i>	pp. 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 215, 228, 319, 350

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
F.8.10 Project how current trends in human resource use and population growth will influence the natural environment, and show how current policies affect those trends.	F.8.10 a. Study current policies and their impact on our environment.	pp. 204, 213, 215, 221, 223, 226, 227, 292, 294-295, 319, 320, 321, 330, 331, 336, 344, 345, 408
G. SCIENCE APPLICATIONS		
<i>By the end of Grade 8 students will:</i>	<i>By the beginning of Grade 8 students will:</i>	
G.8.1 Identify and investigate the skills people need for a career in science or technology and identify the academic courses that a person pursuing such a career would need.	G.8.1 a. Explore careers in science and technology.	pp. 44-45, 130-131, 134, 232, 294-295, 352-353, 356, 472, 560-561, 564, 580-581, 690
G.8.2 Explain how current scientific and technological discoveries have an influence on the work people do and how some of these discoveries also lead to new careers.	G.8.2 a. Explore and connect technology with changing trends in career options.	pp. 44-45, 130-131, 134, 232, 294-295, 352-353, 356, 472, 560-561, 564, 580-581, 690
G.8.3 Illustrate the impact that science and technology have had, both good and bad, on careers, systems, society, environment, and quality of life.	G.8.3 a. Highlight the impacts science and technology have had on our culture both positive and negative. <i>Example: simple risk-benefit analysis...</i>	pp. 130-131, 294-295, 352-353, 414-415
G.8.4 Propose a design (or re-design) of an applied science model or a machine that will have an impact in the community or elsewhere in the world and show how the design (or re-design) might work, including potential side-effects.	G.8.4 a. Design, test, and revise a model, machine, or device.	pp. 12, 27, 73, 117, 198, 248-249, 251, 255, 265, 268, 275, 287, 369, 399, 411, 431, 435, 441, 447, 457, 466, 468, 483, 493, 648

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
	b. Discuss a model’s potential impact in the community or elsewhere in the world and show how the design (or re-design) might work, including potential side-effects.	pp. 12, 27, 73, 117, 198, 248-249, 251, 255, 265, 268, 275, 287, 369, 399, 411, 431, 435, 441, 447, 457, 466, 468, 483, 493, 648
G.8.5 Investigate a specific local problem to which there has been a scientific or technological solution, including proposals for alternative choices of action, the choices that were made, reasons for the choices, any new problems created, and subsequent community satisfaction.	G.8.5 a. Investigate a specific local problem or issue where the issue was solved through science or technology.	pp. 130-131, 294-295, 352-353, 414-415
	b. Examine the issue or problem to determine why the solution was chosen. <i>Examples: alternative solutions, reasons for the choices, new problems created by the solution, subsequent community satisfaction...</i>	pp. 130-131, 294-295, 352-353, 414-415
G.8.6 Use current texts, encyclopedias, source books, computers, experts, the popular press, or other relevant sources to identify examples of how scientific discoveries have resulted in new technology.	G.8.6 a. Research (using multiple science sources) how a scientific discovery resulted in new technology.	pp. 22, 79, 245, 256, 326, 376, 474-475
G.8.7 Show evidence of how science and technology are interdependent, using some examples drawn from personally conducted investigations.	G.8.7 a. Show relationships between science and technology over time. <i>Examples: changes in cell theory, medical advancements, space exploration, commercial applications, communications...</i>	pp. 22, 130-131, 216-217, 294-295, 326, 352-353, 414-415, 454-455, 490, 500-501, 580-581, 674-675

Macmillan/McGraw-Hill SCIENCE: A Closer Look © 2008, Grade 5
Correlated with
Wisconsin Science Assessment Framework, Grade 8

Performance Standards	Assessment Frameworks	Macmillan/McGraw-Hill SCIENCE: A Closer Look
H. SCIENCE IN SOCIAL AND PERSONAL PERSPECTIVES		
<i>By the end of Grade 8 students will:</i>	<i>By the beginning of Grade 8 students will:</i>	
H.8.1 Evaluate the scientific evidence used in various media (for example, television, radio, Internet, popular press, and scientific journals) to address a social issue, using criteria of accuracy, logic, bias, relevance of data, and credibility of source.	H.8.1 a. Evaluate various sources of information about a social issue with emphasis on scientific quality (scientific accuracy, credibility, and bias). <i>Example: Compare tabloid versus scientific journal...</i>	pp. 130-131, 347, 348, 349, 351, 537
H.8.2 Present a scientific solution to a problem involving the earth and space, life and environmental, or physical sciences and participate in a consensus-building discussion to arrive at a group decision.	H.8.2 a. Engage in consensus-building discussions about important current situations.	pp. 42, 197, 203, 218, 226, 227
	b. Determine a solution to a problem based on scientific evidence.	pp. 42, 197, 203, 218, 226, 227
H.8.3 Understand the consequences of decisions affecting personal health and safety.	H.8.3 a. Using scientific evidence, investigate and critique decision-making in personal health and safety issues. <i>Examples: nutrition, seat belt safety, helmet use, limitations of antibiotics, personal hygiene, spread of viruses, tobacco, and alcohol use...</i>	pp. 14, 119, 351, 395, 397, 398, 401, 427, 672