DOING SCIENCE: THE PROCESS OF SCIENTIFIC INQUIRY		
Colorado Model Content Standards: Science – Grades 6 – 8		
Lesson	**Standard**	**Descriptor**
All lessons	1.1	Ask questions and state hypotheses that lead to different types of scientific investigations *(for example: experimentation, collecting specimens, constructing models, researching scientific literature).*
1, 3, 4	1.2	Use appropriate tools, technologies, and metric measurements to gather and organize data and report results.
3, 4	1.3	Interpret and evaluate data in order to formulate logical conclusions.
All lessons	1.4	Demonstrate that scientific ideas are used to explain previous observations and to predict future events *(for example: plate tectonics and future earthquake activity).*
1, 3, 4	1.5	Identify and evaluate alternative explanations and procedures.
1, 3, 4	1.6	Communicate results of their investigations in appropriate ways *(for example: written reports, graphic displays, oral presentations).*
3, 4	3.7	There are noncommunicable conditions and communicable diseases *(for example: heart disease and chicken pox).*
2	5.1	A controlled experiment must have comparable results when repeated.
1, 3, 4	5.2	Scientific knowledge changes as new knowledge is acquired and previous ideas are modified *(for example: through space exploration).*
3	5.4	Models can be used to predict change *(for example: computer simulation, video sequence, stream table).*
3, 4	5.5	There are interrelationships among science, technology, and human activity that affect the world.
Colorado Model Content Standards: Mathematics – Grades 5 – 8		
Lesson	**Standard**	**Benchmark**
3, 4	1.1	Demonstrate meanings for integers, rational numbers, percents, exponents, square roots, and pi (π), and use physical materials and technology in problem-solving situations.
3, 4	1.4	Use the relationships among fractions, decimals, and percents, include the concepts of ratio and proportion, in problem-solving situations.
3, 4	2.1	Represent, describe, and analyze patterns and relationships using tables, graphs, verbal rules, and standard algebraic notation.
3, 4	3.1	Read and construct displays of data using appropriate techniques (for example, line graphs, circle graphs, scatter plots, box plots, stem-and-leaf plots) and appropriate technology.
3, 4	3.3	Evaluate arguments that are based on statistical claims.
3, 4	3.4	Formulate hypotheses, draw conclusions, and make convincing arguments based on data analysis.
1	5.1	Estimate, use, and describe measures of distance, perimeter, area, volume, capacity, weight, mass, and angle

		comparison.
1	5.2	Estimate, make, and use direct and indirect measurements to describe and make comparisons.
3, 4	5.3	Read and interpret various scales including those based on number lines, graphs, and maps.
1	5.6	Select and use appropriate units and tools to measure to the degree of accuracy required in a particular problem-solving situation.
3, 4	6.2	Construct, use, and explain procedures to compute and estimate with whole numbers, fractions, decimals, and integers.
3, 4	6.4	Select and use appropriate algorithms for computing with commonly used fractions and decimals, percents, and integers in problem-solving and determine whether the results are reasonable.

Colorado Model Content Standards: Reading & Writing – Grades 5 – 8		
Lesson	**Standard**	**Descriptor**
All lessons	1.A	Using a full range of strategies to comprehend essays, speeches, autobiographies, and first-person historical documents in addition to directions, nonfiction material, technical writing, newspapers, and magazines.
All lessons	2.A	Writing stories, letters, and reports with greater detail and supporting material.
All lessons	2.B	Choosing vocabulary and figures of speech that communicate clearly.
All lessons	2.F	Writing and speaking in the content areas *(for example, science geography, history, literature)*, using the technical vocabulary of the subject accurately.
All lessons	2.G	Recognizing stylistic elements such as voice, tone, and style.
All lessons	3.D	Using simple, compound, complex, and compound/complex sentences in writing and speaking.
All lessons	3.G	Expanding spelling skills to include more complex words.
All lessons	3.H	Demonstrating use of conventional spelling in their published works.
All lessons	4.A	Recognizing an author's or speaker's point of view and purpose, separating fact from opinion.
All lessons	4.B	Using reading, writing, speaking, listening, and viewing skills to solve problems and answer questions.
All lessons	4.C	Making predictions, drawing conclusions, and analyzing what they read, hear, and view.
All lessons	4.D	Recognizing, expressing, and defending a point of view orally in an articulate manner and in writing.
All lessons	5.C	Locating and selecting relevant information.
3, 4	5.D	Using available technology to research and produce an end-product that is accurately documented.

National Health Education Standards – Grades 6 – 8: cited from pre-publication document of National Health Education Standards, Pre K-12, American Cancer Society, December 2005 – August 2006		
Lesson	**Standard**	**Performance Indicator**
3, 4	1.8.1	Analyze the relationship between healthy behaviors and personal health.
3	1.8.3	Analyze how the environment impacts personal health.

4	1.8.5	Describe ways to reduce or prevent injuries and other adolescent health problems.
3, 4	1.8.7	Describe the benefits and barriers to practicing healthy behaviors.
3, 4	1.8.8	Examine the likelihood of injury or illness if engaging in unhealthy behaviors.
3, 4	1.8.9	Examine the potential seriousness of injury or illness if engaging in unhealthy behaviors.
3	2.8.3	Describe how peers influence healthy and unhealthy behaviors.
3	2.8.8	Explain the influence of personal values and beliefs on individual health practices and behaviors.
3, 4	2.8.9	Describe how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors.
3, 4	2.8.10	Explain how school and public health policies can influence health promotion and disease prevention.
3, 4	3.8.1	Analyze the validity of health information, products, and services.
3, 4	3.8.4	Describe situations that may require professional health services.
3, 4	4.8.1	Apply effective verbal and nonverbal communication skills to enhance health.
3	5.8.1	Identify circumstances that can help or hinder healthy decision-making.
3, 4	5.8.2	Determine when health-related situations require the application of a thoughtful decision-making process.
3, 4	5.8.3	Distinguish when individual or collaborative decision-making is appropriate.
3, 4	5.8.5	Predict the potential short and long-term impact of each alternative on self and others.
4	5.8.6	Choose healthy alternatives over unhealthy alternatives when making a decision.
3, 4	5.8.7	Analyze the outcomes of a health-related decision.
3, 4	7.8.3	Demonstrate behaviors to avoid or reduce health risks to self and others.
3, 4	8.8.1	State a health enhancing position on a topic and support it with accurate information.
4	8.8.2	Demonstrate how to influence and support others to make positive health choices.
4	8.8.4	Identify ways that health messages and communication techniques can be altered for different audiences.