THE BRAIN: OUR SENSE OF SELF		
Montana Benchmarks: Science – End of Grade 8		
Lesson	**Standard**	**Benchmark**
3, 4	**1.1**	Identify a question, determine relevant variables and a control, formulate a testable hypothesis, plan and predict the outcome of an investigation, safely conduct scientific investigation, and compare and analyze data.
3, 4	**1.2**	Select and use appropriate tools including technology to make measurements (in metric units), gather, and process and analyze data from scientific investigations.
2, 3, 4	**1.3**	Review evidence, communicate and defend results of investigations, including considering alternative explanations.
3, 4	**1.4**	Create models to illustrate scientific concepts and use the model to predict change. (e.g., computer simulation, stream table, graphic representation).
3, 4	**1.5**	Identify strengths and weaknesses in an investigation design.
1, 2, 3, 4	**1.6**	Compare how observations of nature form an essential base of knowledge among the Montana American Indians.
3, 4	**3.1**	Compare the structure and function of prokaryotic cells (bacteria) and eukaryotic cells (plant, animal, etc.) including the levels of organization of the structure and function, particularly with humans.
1, 2, 3, 4	**5.2**	Apply scientific knowledge and process skills to understand issues and everyday events.
3, 4	**5.3**	Simulate collaborative problem solving and give examples of how scientific knowledge and technology are shared with other scientists and the public.
2, 3, 4	**5.4**	Use scientific knowledge to investigate problems and their proposed solutions and evaluate those solutions while considering environmental impacts.
2, 4	**6.3**	Describe and explain science as a human endeavor and an ongoing process.
Montana DRAFT Grade Level Expectations (January, 2007): Science – Grades 6, 7, 8		
Grade 6		
Lesson	**Standard**	**GLE**
3, 4	**1**	Safely conducts and evaluates a simple investigation; identifies variables and controls, and communicates results with appropriate data. Identifies that observation is the key inquiry process used by Montana American Indians.
3	**2.C**	Given supporting details, describes the physical world of matter, forces and energy, including physical & mathematical models: Identifies the types and changes of energy, and describes simple machines.
2, 3, 4	**3**	Identifies the structures and functions of living things, identifies the diversity of life in both the micro & macro world, and describes the interactions of living organisms with biotic and abiotic factors.
2, 4	**5.A**	Identifies connections and interactions between technology science, and societies.

Grades 7 & 8		
3, 4	**1**	Identifies and communicates testable questions, safely designs and conducts experimental investigations using appropriate tools and metric measurements, identifies dependent and independent variables, controls, and communicates results with appropriate data. Identifies that observation is the key inquiry process use by Montana American Indians.
3	**2.C**	Given supporting details, describes the physical world of matter, forces and energy, including physical, conceptual and simple mathematical models: Classifies the types of energy, transformation and conservation of energy, and analyzes simple and complex machines.
2, 3, 4	**3**	Identifies and communicates the structures & functions of living things, describes the processes and diversity of life in both the micro and macro world, and explains the interactions of living organisms with biotic and abiotic factors.
2, 4	**5.A**	Describes connections and interactions among technology science, and society, by applying scientific inquiry.
Montana Grade Level Expectations: Mathematics – Grade 6, 7, 8		
Lesson	**Standard**	**GLE**
4	**1**	Selects and uses appropriate problem-solving strategies (e.g., estimate, make a table, look for a pattern, simplify the problem) and technologies (e.g., paper and pencil, calculator, computer [6], data collection devices [7 & 8]) in many contexts.
3, 4	**2**	Communicates organized solutions to problems in a variety of ways (e.g. written, verbal, concrete, pictorial, graphical, algebraic) and provides appropriate support (e.g., reasons, rationales). (6 &7) Formulates and communicates logical arguments using appropriate mathematical ideas (e.g. mathematical terms, notations). (8)
4	**3**	Uses addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions to estimate and compute, and to determine whether results are accurate and reasonable. (6) Uses rational numbers, proportions, and percents to solve problems. (7) Uses rational numbers and proportionality (e.g., ratio, proportion, percent) to represent and solve problems, and determine whether results are accurate. (8)
4	**4**	Uses basic algebraic concepts and represents relationships in appropriate ways (e.g., number sentence, picture, graph) to solve selected (6) or real-world (7) problems. Uses algebra concepts (e.g., variable) and methods (e.g., equation, graph) to represent and solve real-world problems. (8)
4	**6**	Uses complex measurement (e.g., units and tools at appropriate level of accuracy, rates and other derived measures) to describe the physical world and solve real-world problems. (8)
2, 4	**7**	Makes reasonable predictions based on data, basic probability, and statistics (e.g., tables, charts, graphs). (6 &7) Makes reasonable predictions and decisions using data, basic probability, and statistics (e.g., tables, charts, graphs, measures of central tendency), collect, organize, and describe data. (8)
4	**8**	Uses and analyzes a variety of patterns to describe mathematical and real-world relationships in various ways. (6) Analyzes and describes patterns and functions using various representations (e.g., tables, graphs, verbal rules). (7) Analyzes and describes functional relationships and their representations (e.g., tables, graphs, verbal rules, algebraic equations). (8)

Montana Grade Level Expectations: Reading – Grades 6, 7, 8		
Lesson	**Standard**	**GLE**
All lessons	**1**	Makes predictions and describes (6) / makes predictions and clearly describes, with details (7) meaningful (8) connections between new materials and previous information/experience.
2, 3, 4, 5	**2**	Identifies inferred and stated main ideas and selects important facts and details from materials read. (6) Interprets stated and inferred main ideas, and identifies important supporting details when reading material appropriate to the grade level. (7 & 8)
All lessons	**3**	Decodes unknown words in grade-level text and applies a variety of strategies when reading literature and content area material.
All lessons	**5**	Uses a substantial reading vocabulary appropriate to grade-level.
2, 3, 4, 5	**8**	Selects and uses appropriate reading materials to meet a variety of purposes at grade-level (6 &7) (e.g., to organize and understand information, to investigate a topic, to apply information to perform specific tasks). (8)
All lessons	**11**	Compares and integrates information from a variety of print and non-print sources. (6) Compares, contrasts and integrates information from a variety of print and non-print sources (7) to defend a point of view. (8)
Montana Benchmarks: Writing – End of Grade 8		
Lesson	**Standard**	**Benchmark**
2, 3, 4, 5	**1.1**	Organize text in paragraphs with clear beginning, middle, and end, using transitions and logical sequence.
2, 3, 4, 5	**1.2**	Develop a main idea through relevant supporting details.
All lessons	**1.3**	Demonstrate some control of personal voice, sentence structure, and word choice.
All lessons	**1.4**	Apply conventions of standard written English (e.g., spelling, punctuation, usage) appropriate for grade level and purpose.
All lessons	**2.5**	Share/publish a legible final product.
All lessons	**4.1**	Identify and articulate the purpose for their writing and write appropriately.
All lessons	**4.2**	Choose audiences (e.g., self, peers, adults) appropriate to purposes and topics.
2, 3, 4, 5	**4.3**	Experience writing in various genres (e.g., narrative writing).
2, 3, 4, 5	**5.2**	Write using characteristics of different forms.
2, 3, 4, 5	**6.1**	Pose questions or identify problems.
2, 3, 4, 5	**6.2**	Find and use a variety of technologies and information sources.
2, 3, 4, 5	**6.3**	Identify several explanations or solutions, and draw conclusions based on their analysis of the information.
All lessons	**6.4**	Share information in appropriate ways for intended audiences.

Montana Benchmarks: Health Enhancement – End of Grade 8		
Lesson	**Standard**	**Benchmark**
4	**1.1**	Explain the relationship between positive health behaviors and the prevention of injury, illness, disease, and premature death.
2, 3, 4	**1.2**	Explain the function and maintenance of body systems, including the reproductive system.
4	**1.3**	Analyze how peers, family, heredity, and environment influence personal health.
4	**1.4**	Explain personal health-enhancing strategies that encompass substance abuse, nutrition, exercise, sexual activity, injury/disease prevention, including HIV/AIDS prevention and stress management.
5	**1.5**	Explain how appropriate health care can prevent premature death and disability.
4	**5.1**	Individually and collaboratively apply problem-solving processes to health issues.
4, 5	**5.2**	Analyze how health-related decisions are influenced by the attitudes and values of individuals, families, and the community.
4, 5	**5.3**	Predict how decisions specific to health behavior have consequences for self and others.
4, 5	**5.4**	Describe personal factors that influence an individual's health goals.
4, 5	**5.6**	Identify the validity of health information and how culture, media, and technology influence choices.
2, 3, 4, 5	**6.2**	Demonstrate ways to communicate care, consideration, and respect of self and others.
4	**7.5**	Demonstrate strategies to improve or maintain personal and family health.