| 1 | Nevada | a Sc | cience <i>F</i> | Academi | c Stand | lards: | Grac | les 6 – 8 | |
|---|--------|------|-----------------|---------|---------|--------|------|-----------|--|
|---|--------|------|-----------------|---------|---------|--------|------|-----------|--|

| Lesson | Standard | Objective |
|-------------|----------|---|
| 3, 4, 5 | N.8.A.1 | Students know how to identify and critically evaluate information in data, tables, and graphs. |
| All lessons | N.8.A.2 | Students know how to critically evaluate information to distinguish between fact and opinion. |
| All lessons | N.8.A.3 | Students know different explanations can be given for the same evidence. |
| 3, 4, 5 | N.8.A.5 | Students know how to use appropriate technology and laboratory procedures safely for observing, measuring, recording, and analyzing data. |
| All lessons | N.8.A.6 | Students know scientific inquiry includes evaluating results of scientific investigations, experiments, observations, theoretical and mathematical models, and explanations proposed by other scientists. |
| All lessons | N.8.A.7 | Students know there are multiple methods for organizing items and information. |
| 1, 3, 4 | N.8.B.3 | Students know scientific knowledge is revised through a process of incorporating new evidence gained through ongoing investigation and collaborative discussion. |
| 4 | L.8.A.1 | Students know heredity is the passage of genetic instructions from one generation to the next generation. |
| 4 | L.8.A.4 | Students know some characteristics of an organism are the result of a combination of interaction with the environment and genetic information. |
| 2, 5 | L.8.B.4 | Students know cells combine to form tissues that combine to form organs and organ systems that are specialized to perform life functions. |
| 4 | L.8.B.5 | Students know disease can result from defects in body systems or from damage caused by infection. |
| 1, 3, 4 | L.8.D.3 | Students know an organism's behavior is based on both experience and on the species' evolutionary history. |

Nevada Mathematics Academic Standards: Grades 6 – 8

Mathematics Process Standards

| | Wathematics Process Standards | | | | |
|------------|-------------------------------|--|--|--|--|
| Lesson | Standard | ard Objective | | | |
| 2, 3, 4, 5 | A.1 | Generalize solutions and apply previous knowledge to new problem solving situations. | | | |
| 2, 3, 4, 5 | A.2 | Determine an efficient strategy, verify, interpret, and evaluate the results with respect to the original problem. | | | |
| 2, 3, 4, 5 | A.5 | Identify necessary and extraneous information. | | | |
| 3, 5 | A.7 | Apply technology as a tool in problem solving situations. | | | |
| 2, 3, 4, 5 | A.8 | Apply combinations of proven strategies and previous knowledge to solve non-routine problems. | | | |
| 2, 3, 4, 5 | B.1 | Use formulas, algorithms, inquiry, and other techniques to solve mathematical problems. | | | |

| 2, 3, 4, 5 | B.4 | Model and explain mathematical relationships using oral, written, graphic, and algebraic methods. | | |
|---------------|---------|--|--|--|
| 2, 3, 4, 5 | B.5 | Use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems. | | |
| 2, 3, 4, 5 | D.4 | Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science. | | |
| 2, 3, 4, 5, 6 | D.5 | Identify, explain, and apply mathematics in everyday life. | | |
| | | Grade 6 | | |
| 2, 4, 5 | 1.6.2.b | Multiply and divide with fractions using models, drawings, and numbers. | | |
| 2, 4, 5 | 1.6.2.c | Use models to translate among fractions, decimals, and percents. | | |
| 2, 4, 5 | 1.6.5 | Identify equivalent expressions between and among fractions, decimals, and percents. | | |
| 2, 4, 5 | 1.6.7 | Calculate using fractions, decimals, and percents in mathematical and practical situations. | | |
| 3, 5 | 5.6.1.a | Pose questions that guide the collection of data. | | |
| 3, 4, 5 | 5.6.1.b | Organize and represent data using a variety of graphical representations including circle graphs and scatter plots. | | |
| 4, 5 | 5.6.3 | Analyze the effect a change of graph type has on the interpretation of a set of data. | | |
| 3, 4, 5, 6 | 5.6.6 | Analyze various representations of a set of data to draw conclusions and make predictions. | | |
| | | Grade 7 | | |
| 2, 4, 5 | 1.7.2 | Translate among fractions, decimals, and percents, including fractional percents. | | |
| 2, 4, 5 | 1.7.6 | Generate a reasonable estimate for a computation using a variety of methods. | | |
| 2, 3, 4, 5 | 1.7.7 | Calculate with integers and other rational numbers to solve mathematical and practical situations. | | |
| 3, 4, 5 | 2.7.1 | Use and create tables, charts, and graphs to extend a pattern in order to describe a linear rule, including integer values. | | |
| 3, 5 | 5.7.1.a | Formulate questions that guide the collection of data. | | |
| 3, 4, 5, 6 | 5.7.1.b | Organize, display, and read data using the appropriate graphical representations (with and without technology). | | |
| 3, 4, 5, 6 | 5.7.6 | Interpolate and extrapolate from data to make predictions for a given set of data. | | |
| Grade 8 | | | | |
| 2, 4, 5 | 1.8.2.a | Translate among fractions, decimals, and percents, including percents greater than 100 and percents less than 1. | | |
| 2, 4, 6 | 1.8.2.b | Explain and use the relationship among equivalent representations of rational numbers in mathematical and practical situations. | | |
| 2, 3, 4, 5 | 1.8.2 | Use estimation strategies to determine the reasonableness of an answer in mathematical and practical situations. | | |
| 2, 3, 4, 5 | 1.8.7 | Calculate with real numbers to solve mathematical and practical situations. | | |
| 3, 5 | 5.8.1.a | Formulate questions and design a study that guides the collection of data. | | |
| 3, 4, 5, 6 | 5.8.1.b | Organize, display, and read data including box and whisker plots (with and without technology). | | |
| 5, 6 | 5.8.3 | Evaluate statistical arguments that are based on data analysis for accuracy and validity. | | |

| 3, 4, 5, 6 | 5.8.6 | Formulate reasonable inferences and predictions through interpolation and extrapolation of data to solve practical problems. |
|---------------|----------|--|
| | | Nevada English Language Arts Academic Standards: Grades 6 – 8 |
| | | Grade 6 |
| Lesson | Standard | Objective |
| All lessons | 1.6.3 | Identify and use the meanings of high frequency Greek- and Latin-derived roots and affixes to determine the meanings of words. |
| All lessons | 2.6.1 | Develop a plan for reading that includes the determination of purpose, appropriate rate for fiction vs. nonfiction, and related graphic organizers. |
| All lessons | 2.6.3 | Identify and explain the relationships between main ideas and supporting details in text. |
| 6 | 4.6.1 | Identify and use text features such as newspapers, magazines, and editorial to gain meaning. |
| 2, 3, 4, 5 | 4.6.6 | Read and follow multi-step directions to complete a complex task. |
| 2, 3, 4, 5, 6 | 5.6.1 | Write informative papers that develop a clear topic with appropriate facts, details, and examples from a variety of sources and have a distinct beginning, middle, and ending. |
| 2, 3, 4, 5, 6 | 6.6.2 | Use organizing techniques appropriate to the purpose for writing. |
| 2, 3, 4, 5, 6 | 6.6.3 | Write paragraphs and compositions with clear transitions between ideas. |
| 2, 3, 4, 5, 6 | 6.6.6 | Produce writing with a voice that shows awareness of an intended audience and purpose. |
| 2, 3, 4, 5, 6 | 7.6.5 | Spell frequently misspelled words correctly (e.g., their/they're/there and you're/your). |
| 2, 3, 4, 5 | 8.6.4 | Follow multi-step oral directions to complete a task. |
| All lessons | 9.6.1 | Use specific and varied vocabulary and apply standard English to communicate ideas. |
| 3, 4, 5 | 9.6.5 | Give clear and concise multi-step directions to complete a complex task. |
| All lessons | 10.6.1 | Demonstrate active listening skills by participating in conversations and group discussions. |
| All lessons | 10.6.2 | Ask and answer questions to generate possible solutions to a problem. |
| All lessons | 10.6.4 | Evaluate the logic and effectiveness of a speaker's argument(s). |
| 3, 5 | 11.6.1 | Formulate a plan for research to answer a focused question. |
| All lessons | 11.6.4 | Record information using note-taking and organizational formats. |
| | | Grade 7 |
| All lessons | 1.7.3 | Apply Greek- and Latin-derived roots and affixes to determine the meaning of unknown words. |
| All lessons | 2.7.1 | Determine techniques for building background knowledge to aid comprehension. |
| All lessons | 2.7.3 | Make inferences from text to aid comprehension. |
| All lessons | 4.7.3 | Paraphrase and synthesize information from several sources to demonstrate comprehension. |

| 4.7.6 | Read and follow multi-step directions to complete a complex task. | |
|--|--|--|
| 5.7.1 | Write informative papers that have a structured beginning, middle, and conclusion and draw upon a variety of sources. | |
| 5.7.2 | Convert text into visual formats, such as charts and graphs for a specific audience and purpose. | |
| 5.7.5 | Write summaries of procedures such as a science lab experiment or an explanation of how to solve a math problem. | |
| 6.7.2 | Select and use organizing techniques appropriate to the purpose for writing. | |
| 6.7.3 | Write compositions that focus on a main topic supported by relevant examples, anecdotes, and/or details. | |
| 6.7.6 | Produce writing with a voice that addresses an intended audience and purpose. | |
| 7.7.5 | Demonstrate conventional spelling. | |
| 2, 3, 4, 5 8.7.4 Follow multi-step oral directions to complete a task. | | |
| 9.7.1 | Use specific and varied vocabulary and apply standard English to communicate ideas. | |
| 9.7.5 | Give clear and concise multi-step directions to complete a complex task. | |
| 10.7.1 | Provide constructive feedback when participating in conversations and group discussions. | |
| 10.7.2 | Distinguish between relevant and irrelevant information offered in support of an opinion. | |
| 10.7.4 | Develop logical arguments in support of opinions. | |
| 11.7.1 | Formulate questions and statements of purpose to guide cross-curricular research. | |
| 11.7.4 | Record information using a self-selected note-taking or organizational strategy. | |
| | Grade 8 | |
| 1.8.3 | Apply knowledge of Greek- and Latin-derived roots and affixes to determine the meaning of unknown words and to increase vocabulary. | |
| 2.8.1 | Apply and analyze the use of appropriate pre-reading strategies that enhance comprehension, such as accessing prior knowledge, predicting, previewing, and setting a purpose. | |
| 2.8.3 | Apply and analyze a variety of skills and strategies such as locating essential information, verifying predictions, drawing conclusions, and making inferences to aid comprehension. | |
| 4.8.1 and 4.8.2 | Use knowledge of text features and common expository structures such as cause/effect and comparison/contrast to comprehend text. | |
| 7.0.2 | comprehend text. | |
| 4.8.3 | Locate, interpret, organize, and synthesize information from texts to answer specific questions and support ideas. | |
| | | |
| 4.8.3 | Locate, interpret, organize, and synthesize information from texts to answer specific questions and support ideas. | |
| 4.8.3 4.8.6 | Locate, interpret, organize, and synthesize information from texts to answer specific questions and support ideas. Read and follow multi-step directions to complete a complex task. Write informative papers that develop a topic with introductory and concluding statements and supporting ideas, | |
| | 5.7.1 5.7.2 5.7.5 6.7.2 6.7.3 6.7.6 7.7.5 8.7.4 9.7.1 9.7.5 10.7.1 10.7.2 10.7.4 11.7.1 11.7.4 1.8.3 2.8.1 2.8.3 4.8.1 and | |

| 2, 3, 4, 5, 6 | 6.8.2 | Use organizing techniques appropriate to the purpose for writing. | |
|----------------|----------|---|--|
| 2, 3, 4, 5, 6 | 6.8.3 | Write coherent compositions with a controlling impression or thesis statement. | |
| 2, 3, 4, 5, 6 | 6.8.6 | Produce writing with a voice that is expressive and appropriate to audience and purpose. | |
| 2, 3, 4, 5, 6 | 7.8.5 | Demonstrate conventional spelling. | |
| 1 | 8.8.1 | Identify and paraphrase a speaker's main ideas and supporting evidence to draw meaning from and ask relevant questions about content and purpose of oral presentations. | |
| 2, 3, 4, 5 | 8.68.4 | Follow multi-step oral directions to complete a task. | |
| All lessons | 9.8.1 | Use specific and varied vocabulary and apply standard English to communicate ideas. | |
| 3, 5 | 9.8.5 | Give clear and concise multi-step directions to complete a complex task. | |
| All lessons | 10.8.1 | Participate in conversations and group discussions as active listeners who provide constructive feedback. | |
| All lessons | 10.8.2 | Ask for and provide specific evidence in support of an opinion. | |
| All lessons | 10.8.4 | Express supported opinions while considering divergent viewpoints. | |
| 3, 5 | 11.8.1 | Formulate questions and develop a clear statement of purpose that lead to inquiry, investigation, and research of cross-curricular topics. | |
| All lessons | 11.8.4 | Record information using a variety of note-taking and organizational strategies. | |
| | | Nevada Health Education Core Curriculum Standards: Grade 8 | |
| Lesson | Standard | Objective | |
| 2, 3, 5 | 1.8.1 | Explain the impact of personal health behaviors on the functioning of body systems. | |
| All lessons | 1.8.4 | Analyze the physiological and psychological effects of drug usage. | |
| 4, 6 | 1.8.6 | Describe ways to reduce risk factors and increase resiliency related to adolescent health. | |
| 5, 6 | 1.8.7 | Identify laws and regulations made to protect the health of the community. | |
| 4, 6 | 2.8.1 | Differentiate health concerns as personal responsibility or professional responsibility. | |
| All lessons | 2.8.2 | Identify characteristics of scientifically valid health information. | |
| 7 (11 10000110 | | | |