THE SCIENCE OF ENERGY BALANCE: CALORIE INTAKE AND PHYSICAL ACTIVITY		
South Dakota Science Standards: Grades 6 – 8		
Grade 6		
Lesson	**Standard**	**Supporting Skill**
1, 2, 3, 4	**6.N.1.1**	Recognize scientific knowledge is not merely a set of static facts but is dynamic and affords the best current explanations.
1, 4	**6.N.1.2.1**	Conduct systematic scientific investigations that: use appropriate supportive technologies; manipulate one variable over time with many repeated trials to test a hypothesis; construct and interpret graphs from data to make predictions; and use research methods to investigate practical and/or personal scientific problems and questions.
2	**6.N.1.2.2**	Describe and demonstrate various safety factors associated with different types of scientific activity.
All lessons	**6.P.3.1**	Students are able to identify types of energy transformations.
4	**6.S.1.1**	Students accurately describe how science and technology have helped society to solve problems.
Grade 7		
5	**7.N.1.1**	Describe societal response to major scientific findings or theories.
1, 4	**7.N.2.1**	Students are able to conduct scientific investigations using given procedures: use appropriate supportive technologies; control variables to test hypotheses by repeated trials; identify sources of experimental error; interpret to make predictions and/or justify conclusions; and use research methods to investigate practical and/or personal scientific problems and questions.
2	**7.N.2.1.1**	Describe and demonstrate various safety factors associated with different types of scientific activity.
1, 3, 4	**7.N.2.1.2**	Analyze the benefits and potential of scientific investigations.
3	**7.L.2.1.1**	Identify the role of genetics in the transmission of traits and characteristics in organisms.
4	**7.S.1.1**	Students are able to describe how science and technology are used to solve problems in different professions and businesses.
Grade 8		
1, 4	**8.N.1.1**	Students are able to differentiate among facts, predictions, theory, and law/principles in scientific investigations.
1, 4	**8.N.2.1**	Students are able to design a replicable scientific investigation that includes: use appropriate supportive technologies; control variables to test hypotheses by repeated trials and by identifying sources of experimental error; interpret data to justify predictions or conclusions; use research methods to investigate practical and/or personal scientific problems and questions; select appropriate scientific equipment and technologies for investigations and experiments; use proper safety procedures in all investigations; and wear appropriate attire.
1, 3, 4	**8.N.2.1.1**	Evaluate the benefits and potential of scientific investigations.
4	**8.S.1.1**	Students are able to describe how science and technology have been influenced by social needs, attitudes, and values.

South Dakota Mathematics Standards: Grades 6 – 8		
Grade 6		
Lesson	**Standard**	**Supporting Skill**
All lessons	**6.A.1.1**	Students are able to use order of operations, excluding nested parentheses and exponents, to simplify whole number expressions.
All lessons	**6.A.1.2**	Students are able to write algebraic expressions involving addition or multiplication using whole numbers.
1, 4, 5	**6.A.4.1**	Students are able to use concrete materials, graphs and algebraic statements to represent problem situations.
2	**6.M.1.1**	Students are able to select, use, and convert appropriate unit of measurement for a situation.
1, 2, 4, 5	**6.N.1.1**	Students are able to represent fractions in equivalent forms and convert between fractions, decimals, and percents using halves, fourths, tenths, hundredths.
All lessons	**6.N.2.1**	Students are able to add, subtract, multiply, and divide decimals.
All lessons	**6.N.3.1**	Students are able to use various strategies to solve one- and two-step problems involving positive decimals.
1, 4, 5	**6.S.1.2**	Students are able to display data using bar and line graphs and draw conclusions from data displayed in a graph.
Grade 7		
All lessons	**7.A.1.1**	Students are able to write and evaluate algebraic expressions using the set of whole numbers.
2	**7.M.1.1**	Students are able to select, use, and convert appropriate units of measurement for a situation including capacity and angle measurement.
All lessons	**7.N.1.1**	Students are able to represent numbers in a variety of forms by describing, ordering, and comparing integers, decimals, percents, and fractions.
All lessons	**7.N.2.1**	Students are able to add, subtract, multiply, and divide integers and positive fractions.
All lessons	**7.N.3.1**	Students are able to use various strategies to solve one- and two-step problems involving positive fractions and integers.
1, 4, 5	**7.S.1.2**	Students are able to display data, using frequency tables, line plots, stem-and-leaf plots, and make predictions from data displayed in a graph.
Grade 8		
1, 4	**8.A.4.2**	Students are able to describe and represent relations using tables, graphs, and rules.
1, 2, 3, 4	**8.N.2.1**	Students are able to read, write, and compute within any subset of rational numbers.
All lessons	**8.N.3.1**	Students are able to use various strategies to solve multi-step problems involving rational numbers.
1, 2, 4	**8.S.1.2**	Students are able to use a variety of visual representations to display data to make comparisons and predictions.

South Dakota Reading, Writing, Listening, Viewing ,and Speaking Standards: Grades 6 – 8		
Grade 6		
Lesson	**Standard**	**Supporting Skill**
All lessons	**6.R.1.1**	Students can expand word meanings using word categories and word parts.
All lessons	**6.R.1.2**	Students can utilize context to comprehend words with multiple meanings.
All lessons	**6.R.2.1**	Students can utilize direct and implied meaning to comprehend text.
All lessons	**6.R.2.2**	Students can demonstrate the elements of fluency to comprehend text.
All lessons	**6.R.5.1**	Students can compare and contrast information on one topic from multiple informational texts.
All lessons	**6.R.5.2**	Students can evaluate the credibility of informational texts.
All lessons	**6.R.5.3**	Students can utilize sources to locate information.
3, 4, 5	**6.W.1.1**	Students can compose narrative and descriptive text of three paragraphs.
1, 3, 4, 5	**6.W.1.3**	Students can identify purpose and audience in writing.
1, 3, 4, 5	**6.W.1.4**	Students can summarize information from references to compose text.
All lessons	**6.LVS.1.2**	Students can organize and present narrative and informative presentations using main ideas and supporting details.
All lessons	**6.LVS.1.3**	Students can identify facts and opinions in auditory and visual information.
Grade 7		
All lessons	**7.R.1.1**	Students can analyze word parts to determine meaning and context.
All lessons	**7.R.2.1**	Students can interpret text using comprehension strategies.
All lessons	**7.R.2.2**	Students can read fluently to comprehend grade-level text.
All lessons	**7.R.5.2**	Students can analyze and organize data from informational text.
3, 4, 5	**7.W.1.1**	Students can compose expository and persuasive text of three paragraphs.
1, 3, 4, 5	**7.W.1.2**	Students can revise word choice in writing.
1, 3, 4, 5	**7.W.1.3**	Students can select language and style for writing.
1, 3, 4, 5	**7.W.1.4**	Students can summarize and paraphrase information from references to compose text.
All lessons	**7.LVS.1.1**	Students can evaluate the purpose and content of the presentation using listening and viewing skills.
3	**7.LVS.1.3**	Students can create clear and organized descriptive, informative, and narrative presentations.
All lessons	**7.LVS.1.4**	Students can evaluate the use of facts and opinions expressed in auditory and visual information.
Grade 8		
All lessons	**8.R.1.1**	Students can apply contextual knowledge of word origins to extend vocabulary.
All lessons	**8.R.2.1**	Students can analyze text using comprehension strategies.

All lessons	**8.R.2.2**	Students can read fluently to comprehend grade-level text.
All lessons	**8.R.5.3**	Students can combine new information with existing knowledge to enhance understanding.
1, 3, 4, 5	**8.W.1.2**	Students can revise writing for ideas and content.
1, 3, 4, 5	**8.W.1.3**	Students can compose text using information from multiple sources to support a topic.
All lessons	**8.LVS.1.1**	Students can evaluate information in auditory and visual communication.
3	**8.LVS.1.3**	Students can integrate verbal and nonverbal techniques to deliver an oral presentation for a specific audience and purpose.
South Dakota Health Education Standards: Grades 6 – 8		
Lesson	**Standard**	**Benchmark**
All lessons	**1.1.c**	Analyze how appropriate and inappropriate health practices affect self and family.
All lessons	**1.2.a**	Explain how health is influenced by the interaction of body systems.
All lessons	**1.2.b**	Examine practices which enhance personal emotional, social, and physical well being.
All lessons	**1.2.c**	Examine ways to avoid, minimize, or cope with adolescent health problems.
4	**1.3.a**	Determine how medical research influences health care and disease prevention.
All lessons	**1.3.c**	Examine health practices which may cause and/or spread/prevent diseases.
4	**2.1.c**	Analyze the impact of technology on personal and family health decisions and practices.
3	**2.3.a**	Analyze various personal situations to determine when professional health services are necessary.
3	**2.3.c**	Describe the effects of following or rejecting prescribed/recommended treatment.
All lessons	**3.1.a**	Distinguish short and long term consequences of risky and harmful behaviors.
1, 2, 5	**3.1.c**	Analyze personal practices which promote life-long health and well being.
1, 2, 5	**3.3.a**	Describe how personal choices can impact long range health.
1, 2, 5	**3.3b**	Demonstrate individual responsibility in health-related decisions/choices.
All lessons	**4.1.b**	Choose appropriate communication techniques when interacting with family, peers, and community.
All lessons	**4.2.c**	Use relevant and appropriate terminology when discussing health issues.
All lessons	**5.1.b**	Analyze information/data to support or refute the cause/effect of health issues.
5	**5.2.c**	Investigate the impact of past health plans/strategies on current populations/environments.