

CHEMICALS, THE ENVIRONMENT, AND YOU: EXPLORATIONS IN SCIENCE AND HUMAN HEALTH		
South Dakota Science Standards: Grades 6 – 8		
Grade 6		
Lesson	Standard	Supporting Skill
All lessons	6.N.1.1	Recognize scientific knowledge is not merely a set of static facts but is dynamic and affords the best current explanations.
2, 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.
1	6.P.1.2.2	Use the Periodic Table as a tool to describe elements.
1, 5	6.S.1.1	Students accurately describe how science and technology have helped society to solve problems.
5, 6	6.S.2.1	Students are able, given a scenario, to identify the problem(s) of human activity on the local, regional, or global environment.
Grade 7		
5	7.N.1.1	Describe societal response to major scientific findings or theories.
2, 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.
2, 4	7.N.2.1.2	Analyze the benefits and potential of scientific investigations.
5	7.S.1.1	Students are able to describe how science and technology are used to solve problems in different professions and businesses.
5, 6	7.S.2.1	Students are able, given a scenario, to predict the consequence(s) of human activity on the local, regional, or global environment.
Grade 8		
2, 4	8.N.1.1	Students are able to differentiate among facts, predictions, theory, and law/principles in scientific investigations.
2, 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

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		questions; select appropriate scientific equipment and technologies for investigations and experiments; use proper safety procedures in all investigations; and wear appropriate attire.
2, 4	8.N.2.1.1	Evaluate the benefits and potential of scientific investigations.
1, 5, 6	8.S.1.1	Students are able to describe how science and technology have been influenced by social needs, attitudes, and values.
5, 6	8.S.2.1	Students are able, given a scenario, to offer solutions to problems created by human activity on the local, regional, or global environment.
South Dakota Mathematics Standards: Grades 6 – 8		
Grade 6		
Lesson	Standard	Supporting Skill
4	6.A.1.1	Students are able to use order of operations, excluding nested parentheses and exponents, to simplify whole number expressions.
2	6.M.1.1	Students are able to select, use, and convert appropriate unit of measurement for a situation.
2	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.
4	6.N.2.1	Students are able to add, subtract, multiply, and divide decimals.
4	6.N.3.1	Students are able to use various strategies to solve one- and two-step problems involving positive decimals.
3	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		
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.
2	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.
2, 4	7.N.2.1	Students are able to add, subtract, multiply, and divide integers and positive fractions.
4	7.N.3.1	Students are able to use various strategies to solve one- and two-step problems involving positive fractions and integers.
3	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		
3	8.A.4.2	Students are able to describe and represent relations using tables, graphs, and rules.
2, 4	8.N.2.1	Students are able to read, write, and compute within any subset of rational numbers.
4	8.N.3.1	Students are able to use various strategies to solve multi-step problems involving rational numbers.
3	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
1, 2, 4, 5, 6	6.R.1.1	Students can expand word meanings using word categories and word parts.
1, 2, 4, 5, 6	6.R.1.2	Students can utilize context to comprehend words with multiple meanings.
1, 2, 4, 5, 6	6.R.2.1	Students can utilize direct and implied meaning to comprehend text.
1, 2, 4, 5, 6	6.R.2.2	Students can demonstrate the elements of fluency to comprehend text.
1, 2, 4, 5, 6	6.R.5.1	Students can compare and contrast information on one topic from multiple informational texts.
1, 2, 4, 5, 6	6.R.5.2	Students can evaluate the credibility of informational texts.
1, 2, 4, 5, 6	6.R.5.3	Students can utilize sources to locate information.
2, 4, 5, 6	6.W.1.1	Students can compose narrative and descriptive text of three paragraphs.
2, 4, 5, 6	6.W.1.3	Students can identify purpose and audience in writing.
1, 4	6.W.1.4	Students can summarize information from references to compose text.
2, 4, 6	6.LVS.1.2	Students can organize and present narrative and informative presentations using main ideas and supporting details.
1, 4, 5, 6	6.LVS.1.3	Students can identify facts and opinions in auditory and visual information.
Grade 7		
1, 2, 4, 5, 6	7.R.1.1	Students can analyze word parts to determine meaning and context.
1, 2, 4, 5, 6	7.R.2.1	Students can interpret text using comprehension strategies.
1, 2, 4, 5, 6	7.R.2.2	Students can read fluently to comprehend grade-level text.
1, 2, 4, 5, 6	7.R.5.2	Students can analyze and organize data from informational text.
2, 4, 5, 6	7.W.1.1	Students can compose expository and persuasive text of three paragraphs.
1, 2, 4, 5, 6	7.W.1.2	Students can revise word choice in writing.
1, 2, 4, 5, 6	7.W.1.3	Students can select language and style for writing.
1, 4	7.W.1.4	Students can summarize and paraphrase information from references to compose text.
1, 2, 4, 5, 6	7.LVS.1.1	Students can evaluate the purpose and content of the presentation using listening and viewing skills.
2, 4, 6	7.LVS.1.3	Students can create clear and organized descriptive, informative, and narrative presentations.
1, 4, 5, 6	7.LVS.1.4	Students can evaluate the use of facts and opinions expressed in auditory and visual information.
Grade 8		
1, 2, 4, 5, 6	8.R.1.1	Students can apply contextual knowledge of word origins to extend vocabulary.

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1, 2, 4, 5, 6	8.R.2.1	Students can analyze text using comprehension strategies.
1, 2, 4, 5, 6	8.R.2.2	Students can read fluently to comprehend grade-level text.
1, 2, 4, 5, 6	8.R.5.3	Students can combine new information with existing knowledge to enhance understanding.
	8.W.1.1	Students can compose narrative, descriptive, expository, and persuasive text of five paragraphs.
1, 2, 4, 5, 6	8.W.1.2	Students can revise writing for ideas and content.
1, 4	8.W.1.3	Students can compose text using information from multiple sources to support a topic.
1, 4, 5, 6	8.LVS.1.1	Students can evaluate information in auditory and visual communication.
4, 6	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
1, 4, 5, 6	1.3.b	Analyze health care requirements and policies which affect safety and well being.
1, 4, 5, 6	1.3.c	Examine health practices which may cause and/or spread/prevent diseases.
1, 4, 5	2.1.c	Analyze the impact of technology on personal and family health decisions and practices.
1, 5	2.2.a	Investigate the role and organization of various community, state, and regional health agencies/services.
4	2.3.c	Describe the effects of following or rejecting prescribed/recommended treatment.
4, 5	3.1.a	Distinguish short and long term consequences of risky and harmful behaviors.
5, 6	3.1.c	Analyze personal practices which promote life-long health and well being.
4, 5, 6	3.3.a	Describe how personal choices can impact long range health.
4, 5, 6	3.3.b	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.
All lessons	5.2.c	Investigate the impact of past health plans/strategies on current populations/environments.