

SOUTH DAKOTA ALIGNMENT FOR NIH SUPPLEMENT CELL BIOLOGY AND CANCER

CELL BIOLOGY AND CANCER		
South Dakota Core and Advanced Science Standards: Grades 9 – 12		
Activity	Standard	Supporting Skill
2, 3, 4, 5	9-12.N.1.1.1	Recognize scientific knowledge is not merely a set of static facts but is dynamic and affords the best current explanations.
4, 5	9-12.N.1.1.2	Discuss how progress in science can be affected by social issues.
2, 3, 4, 5	9-12.N.1.2.1	Research, communicate, and support a scientific argument.
2, 3, 4	9-12.N.1.2.2	Recognize and analyze alternative explanations and models.
4, 5	9-12.N.1.2.3	Evaluate the scientific accuracy of information relevant to a specific issue (pseudo-science).
2, 3, 4	9-12.N.2.1.1	Identify the questions and concepts to guide the development of hypotheses.
3, 4	9-12.N.2.1.A	Use a control and change one variable at a time.
3, 4	9-12.N.2.1.2	Analyze primary sources of information to guide the development of the procedure.
3, 4	9-12.N.2.1.3	Select and use appropriate instruments to extend observations and measurements.
3, 4	9-12.N.2.1.4	Revise explanations and models based on evidence and logic.
3, 4	9-12.N.2.1.5	Use technology and mathematic skills to enhance investigations, communicate results, and defend conclusions.
4	9-12.N.2.2.1	Handle hazardous materials properly.
4	9-12.N.2.2.4	Wear appropriate attire.
4	9-12.N.2.2.5	Practice safe behaviors.
2	9-12.L.1.1.4	Students are able to relate cellular functions and processes to specialized structures within cells: cell life cycles.
2	9-12.L.1.3.A	Students are able to explain how gene expression regulates cell growth and differentiation.
2	9-12.L.3.1.2	Predict the results of biotic and abiotic interactions.
4	9-12.S.1.1.	Students are able to explain ethical roles and responsibilities of scientists and scientific research.
2	9-12.S.1.2.	Students are able to evaluate and describe the impact of scientific discoveries on historical events and social, economic, and ethical issues.
South Dakota Core and Advanced Mathematics Standards: Grades 9 – 12		
Activity	Standard	Supporting Skill
3	9-12.M.1.1.	Students are able to choose appropriate unit label, scale, and precision.
1, 3	9-12.S.1.1.	Students are able to draw conclusions from a set of data.
1, 3	9-12.S.1.2A.	Students are able to analyze and evaluate graphical displays of data.

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1, 3	9-12.S.1.3.	Represent a set of data in a variety of graphical forms and draw conclusions.
South Dakota Reading, Writing, Listening, Viewing ,and Speaking Standards: Grades 9 & 10		
Grade 9		
Activity	Standard	Supporting Skill
All activities	9.R.1.1	Students can apply example clues to extend vocabulary.
All activities	9.R.2.2	Students can read fluently to comprehend grade-level text.
All activities	9.R.5.2	Students can interpret procedural text to complete a multiple-step task.
2, 3, 4, 5	9.W.1.1	Students can write a thesis statement for an expository or persuasive document.
All activities	9.W.2.2	Students can identify and incorporate prepositional phrases in the writing process.
All activities	9.LVS.1.3	Students can clarify and defend positions with precise and relevant evidence within an informal setting.
Grade 10		
All activities	10.R.1.1	Students can apply contrast clues to extend vocabulary.
All activities	10.R.2.1	Students can formulate associations between texts and experiences.
All activities	10.R.2.2	Students can read fluently to comprehend grade-level text.
All activities	10.W.1.1	Students can write text using problem/solution and cause/effect organizational patterns.
All activities	10.W.2.2	Students can edit text for the correct use of pronouns and pronoun case.
2, 5	10.LVS.1.1	Students can analyze visual and auditory impact on the credibility and reliability of the message.
South Dakota Health Education Standards: Grades 9 – 12		
Activity	Standard	Benchmark
1, 2, 4, 5	1.1.c	Evaluate the impact of various health practices on self and family.
1, 2, 5	1.2.a	Analyze the impact of personal health behaviors on the functioning of body systems.
1, 2, 5	1.2.c	Determine how to delay and/or reduce potential health problems during adulthood.
2, 5	1.3.a	Evaluate the impact of national and international medical research.
5	1.3.b	Evaluate the impact of health requirements and policies which affect personal, family, and community health.
1, 2, 4, 5	1.3.c	Analyze various genetic conditions and health practices which may influence the cause or prevention of diseases.
2, 5	2.1.c	Evaluate the impact of technology on personal, family, and community health.
1, 2, 4, 5	3.1.a	Analyze the short and long term consequences of risky and harmful behaviors.
5	3.1.b	Evaluate how social pressures can influence participation in risk taking behaviors.

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1, 2, 5	3.3.a	Analyze how personal choices can impact long range health.
All activities	4.1.b	Model effective communication techniques when interacting with family, peers, and community.
All activities	4.2.c	Use pertinent and descriptive terminology when discussing health issues.
All activities	5.1.b	Evaluate information/data to support or refute the cause/effect and significance of health issues.
5	5.2.c	Analyze the impact various health plans/strategies may have on future populations and environments.