

WYOMING ALIGNMENT FOR NIH SUPPLEMENT HUMAN GENETIC VARIATION

<b>HUMAN GENETIC VARIATION</b>		
<b>Wyoming Science Content Standards: Grades 9 – 12</b>		
<b>Activity</b>	<b>Standard</b>	<b>Benchmark</b>
2, 3, 4, 5	1.2	Students apply concepts of molecular biology (DNA and genes) to recent discoveries.
2, 3	1.3	Students understand that evolution is the consequence of various interactions, including the genetic variability of offspring due to mutation and recombination of genes, and the ensuing selection by the environment of those offspring better able to survive and leave additional offspring.
2, 3, 4, 5	2.1	Students research scientific information and present findings through appropriate means.
3	2.2	Students use inquiry to conduct scientific investigations. <ul style="list-style-type: none"> <li>• Pose problems and identify questions and concepts to design and conduct an investigation.</li> <li>• Collect, organize, analyze and appropriately represent data.</li> <li>• Give priority to evidence in drawing conclusions and making connections to scientific concepts.</li> <li>• Clearly and accurately communicate the result of the investigation.</li> </ul>
2, 3, 4, 5	2.3	Students clearly and accurately communicate the result of their own work as well as information from other sources.
2, 3, 5	2.4	Students investigate the relationships between science and technology and the role of technological design in meeting human needs.
3, 4, 5	3.2	Students examine how scientific information is used to make decisions. <ul style="list-style-type: none"> <li>• Interdisciplinary connections of the sciences and connections to other subject areas and career opportunities.</li> <li>• The role of science in solving personal, local, national, and global problems.</li> </ul>
<b>Wyoming Mathematics Content Standards: Grades 9 – 12</b>		
<b>Activity</b>	<b>Standard</b>	<b>Benchmark</b>
2, 3, 4	1.1	Students represent and apply real numbers in a variety of forms.
2, 3, 4	1.2	Students apply the structure and properties of the real number system.
2, 3, 4	1.3	Students explain their choice of estimation and problem solving strategies and justify results of solutions in problem-solving situations involving real numbers.
1, 3, 4	5.4	Students determine, collect, organize, and analyze relevant data needed to make conclusions.
<b>Wyoming Language Arts Content Standards: Grades 9 – 11</b>		
<b>Activity</b>	<b>Standard</b>	<b>Benchmark</b>
All activities	1.I.A.1	Students demonstrate understanding in their reading of grade-appropriate texts based on a variety of text features, including: literal comprehension (main idea, summarizing, paraphrasing).
All activities	1.I.A.2	Students demonstrate understanding in their reading of grade-appropriate texts based on a variety of text features,

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		including: inferential comprehension (prediction, cause/effect, compare/contrast, drawing conclusions).
<b>All activities</b>	<b>1.I.B</b>	Students use a range of strategies (using word origins; understanding multiple meanings; inferring meaning from context; inferring literal, figurative, and technical meanings; understanding technical and subject-specific words) to develop vocabulary.
<b>All activities</b>	<b>1.III.A.3</b>	Students read a variety of information genres (e.g., documentaries, speeches, public documents, print news media, Internet, websites, electronic databases, microfiche, almanacs, news) and can: make generalizations and inferences based on implicit and explicit information.
<b>2, 3, 4, 5</b>	<b>1.III.B.1</b>	Students conduct research using a variety of grade-appropriate sources and can: synthesize relevant data through note-taking and questioning.
<b>2, 3, 4, 5</b>	<b>1.III.B.2</b>	Students conduct research using a variety of grade-appropriate sources and can: analyze and interpret technical data, written directions, and technical manuals.
<b>2, 3, 4, 5</b>	<b>2.I.C.1</b>	Students arrange paragraphs into logical progressions.
<b>2, 3, 4, 5</b>	<b>2.I.D.1</b>	Students use suitable content, vocabulary, style, structure, tone, and voice.
<b>2, 3, 4, 5</b>	<b>2.I.F</b>	Students use meaningful word choice appropriate to purpose to achieve a specific tone.
<b>2, 3, 4, 5</b>	<b>2.I.G</b>	Students use grade level-appropriate language conventions for spelling, capitalization, punctuation, grammar, and usage.
<b>3</b>	<b>2.II.C</b>	Students create technical writing for practical tasks (e.g., scientific procedures) using grade level-appropriate strategies.
<b>5</b>	<b>2.II.D</b>	Students write and present persuasive essays, demonstrations, and reports (research, problem-solving) using grade level-appropriate strategies.
<b>All activities</b>	<b>3.8.a</b>	Students use strategies to contribute to group discussions by: considering others' ideas and opinions before responding.
<b>All activities</b>	<b>3.8.b</b>	Students use strategies to contribute to group discussions by: determining the purpose of discussions.
<b>All activities</b>	<b>3.9</b>	Students synthesize relevant data from presentations and discussions using strategies such as note-taking and questioning.

**Wyoming Health Education Content Standards: Grades 9 – 12**

<b>Activity</b>	<b>Standard</b>	<b>Benchmark</b>
<b>4</b>	<b>1.4</b>	Students demonstrate an understanding of developmentally appropriate relationships between tobacco use and addiction and healthy lifestyles, health behaviors, and health risks.
<b>4, 5</b>	<b>1.6</b>	Students demonstrate an understanding of developmentally appropriate relationships between prevention and control of disease and healthy lifestyles, health behaviors, and health risks.
<b>4</b>	<b>1.9</b>	Students demonstrate an understanding of developmentally appropriate relationships between personal health and consumer health and healthy lifestyles, health behaviors, and health risks.
<b>2, 3, 4, 5</b>	<b>2.1</b>	Students demonstrate the ability to locate and utilize various sources of health information, products, and services.

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<b>4, 5</b>	<b>3.1</b>	Students demonstrate an understanding of appropriate strategies for improving or maintaining personal health.
<b>4, 5</b>	<b>3.2</b>	Students analyze the short-term and long-term consequences of safe, risky, and harmful behaviors for adolescents and adults.
<b>4, 5</b>	<b>3.3</b>	Students analyze the importance of assuming responsibility for health behaviors.
<b>5</b>	<b>6.2</b>	Students apply an understanding of decision-making strategies to enhance health.
<b>5</b>	<b>6.3</b>	Students collaboratively apply goal setting or decision-making strategies to health issues and problems.
<b>5</b>	<b>7.1</b>	Students apply and evaluate a variety of methods to advocate for personal, family and community health to various audiences.
<b>5</b>	<b>7.2</b>	Students demonstrate how to influence and support others in making positive health choices.
<b>5</b>	<b>7.3</b>	Students demonstrate the ability to work cooperatively when advocating for health.