

HAWAII ALIGNMENT FOR NIH SUPPLEMENT CELL BIOLOGY AND CANCER

<b>CELL BIOLOGY AND CANCER</b>		
<b>Hawaii Content and Performance Standards: Biological Science – Grades 9 – 12</b>		
<b>Activity</b>	<b>Benchmark</b>	<b>Descriptor</b>
3, 4	SC.BS.1.1	Describe how a testable hypothesis may need to be revised to guide a scientific investigation.
3, 4	SC.BS.1.2	Design and safely implement an experiment, including the appropriate use of tools and techniques to organize, analyze, and validate data.
All activities	SC.BS.1.3	Defend and support conclusions, explanations, and arguments based on logic, scientific knowledge, and evidence from data.
3, 4	SC.BS.1.4	Determine the connection(s) among hypotheses, scientific evidence, and conclusions.
3, 4	SC.BS.1.5	Communicate the components of a scientific investigation, using appropriate techniques.
2, 3, 4	SC.BS.1.7	Revise, as needed, conclusions and explanations based on new evidence.
2, 4, 5	SC.BS.2.1	Explain how scientific advancements and emerging technology have influenced society.
5	SC.BS.2.2	Compare the risks and benefits of potential solutions to technological issues.
2	SC.BS.4.3	Differentiate between the processes of mitosis and meiosis.
2	SC.BS.4.4	Describe how homeostatic balance occurs in cells and organisms.
2, 3	SC.BS.5.5	Explain chromosomal mutations, their possible causes, and their effects on genetic variation.
<b>Hawaii Content and Performance Standards: Mathematics – Pre-Algebra and Algebra</b>		
<b>Activity</b>	<b>Benchmark</b>	<b>Descriptor</b>
3	MA.PA.9.1	Represent a variety of patterns (including recursive patterns) with tables, graphs (including graphing technology when available), words, and when possible, symbolic rules.
1, 3	MA.PA.10.3	Use tables and graphs to represent and compare linear relationships.
3	MA.PA.11.2	Judge the validity of data based on the data collection method.
3	MA.PA.14.1	Judge the validity of conjectures that are based on experiments or simulations.
3	MA.AI.10.1	Solve linear equations and inequalities in one variable using a variety of strategies (e.g., algebraically, by graphing, by using a graphing calculator).
<b>Hawaii Content and Performance Standards: Language Arts – Grades 9 &amp; 10</b>		
<b>Activity</b>	<b>Benchmark</b>	<b>Descriptor</b>
1, 2, 3, 4	LA.9.1.1 LA.10.1.1	Use new grade-appropriate vocabulary, including content area vocabulary, learned through reading and word study.
3, 4	LA.10.1.2	Independently use a variety of strategies to gain information from print and online resources, both primary and secondary, as part of a research plan to support a thesis.

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1, 2, 3, 4	LA.9.2.2	Analyze questions not answered by a selected text.
All activities	LA.9.4.1 LA.10.4.1	Write in a variety of grade-appropriate formats for a variety of purposes and audiences, such as: <ul style="list-style-type: none"> <li>• narratives or scripts with a theme and details that contribute to a mood or tone</li> <li>• literary, persuasive, and personal essays</li> <li>• research papers that state and support a thesis</li> <li>• functional writing including forms, applications, and questionnaires</li> <li>• pieces to reflect on learning and to solve problems</li> </ul>
All activities	LA.10.4.2	Use knowledge of sentence structure, grammar, punctuation, capitalization, and spelling to produce grade-appropriate writing in standard English.
All activities	LA.9.4.4	Use a variety of strategies and resources to spell grade-appropriate words.
2, 3, 4, 5	LA.9.5.1	Use accurate and useful research information in writing.
All activities	LA.9.5.3 LA.10.5.3	Use a variety of sentence structures (e.g., parallel phrasing, subordination) and grade-appropriate vocabulary to achieve efficiency, indicate emphasis, and clarify meaning.
All activities	LA.9.5.4	Use a voice and tone appropriate for the topic, purpose, and audience.
All activities	LA.9.6.1 LA.10.6.1	Organize and participate in a small group to accomplish a task or explore a topic. (9) Participate in a small group (e.g., plan sessions, decide on procedures, plan sessions, assign responsibilities, evaluate results). (10)
4, 5	LA.9.6.2 LA.10.6.2	Give a planned oral presentation: highlighting a main idea(s) with support (e.g., statistics, anecdotes, examples) (9); adopting a position or explaining a point of view (10).
All activities	LA.9.6.5 LA.10.6.7	Adjust dialect (e.g., standard English, Hawaiian Creole, colloquialisms) to grade-appropriate audience, purpose, and situation.
2, 3, 4, 5	LA.10.7.1	Incorporate information from a range of print and online sources.

**Hawaii Content and Performance Standards: Health – Grades 9 – 12**

Activity	Benchmark	Descriptor
1, 2, 4, 5	HE.9-12.1.3	Identify personal health behaviors and other factors that impact body system functions.
4, 5	HE.9-12.1.4	Explain the purpose of public health policies and government regulations in health.
2, 3, 4, 5	HE.9-12.2.1	Compare health information provided from home, school, and community resources.
1, 5	HE.9-12.3.3	Evaluate personal behaviors within the risk areas (e.g., tobacco use, alcohol and drug use, nutrition, fitness, personal safety, sexual activity).
2, 3, 4, 5	HE.9-12.4.1	Evaluate the interrelationship of internal and external factors that influence health behaviors.
5	HE.9-12.6.1	Explain decision-making strategies used to make health-related decisions.
1, 3, 4, 5	HE.9-12.6.2	Evaluate health decisions that have immediate and long-term consequences on the individual, family, and community.
5	HE.9-12.7.3	Evaluate the effectiveness of strategies in communicating health information.
5	HE.9-12.7.4	Explain how health messages can be translated to particular audiences.