CELL BIOLOGY AND CANCER		
California Science Content Standards Biology/Life Sciences - Grades 9 - 12		
Activity	**Standard**	**Description**
2, 3	**1.d**	Know the central dogma of molecular biology outlines the flow of information from transcription of ribonucleic acid (RNA) in the nucleus to translation of proteins on ribosomes in the cytoplasm.
1, 2, 3, 4	**4.c**	Know how mutations in the DNA sequence of a gene may or may not affect the expression of the gene or the sequence of amino acids in an encoded protein.
2	**4.d**	Know specialization of cells in multicellular organisms is usually due to different patterns of gene expression rather than to differences of the genes themselves.
2	**5.a**	Know the general structures and functions of DNA, RNA, and protein.
2, 3, 4	**6.g**	Know how to distinguish between the accommodation of an individual organism to its environment and the gradual adaptation of a lineage of organisms through genetic change.
All activities	**7.c**	Know new mutations are constantly being generated in a gene pool.
3, 4	**7.d**	Know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.
California Science Content Standards Investigation & Experimentation - Grades 9 to 12		
Activity	**Standard**	**Description**
3, 4	**1.a**	Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.
3, 4	**1.b**	Identify and communicate sources of unavoidable experimental error.
3, 4	**1.c**	Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.
All activities	**1.d**	Formulate explanations by using logic and evidence.
2, 3, 4	**1.f**	Distinguish between hypothesis and theory as scientific terms.
1, 2, 3, 4	**1.g**	Recognize the usefulness and limitations of models and theories as scientific representations of reality.
2, 3, 4	**1.j**	Recognize the issues of statistical variability and the need for controlled tests.
2, 3, 4, 5	**1.k**	Recognize the cumulative nature of scientific evidence.

All activities	**1.l**	Analyze situations and solve problems that require combining and applying concepts from more than one area of science.
2, 3, 4, 5	**1.m**	Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings.
California English-Language Arts Content Standards – Grades 9 & 10		
Reading		
Activity	**Standard**	**Description**
2, 3, 4, 5	**2.3**	Generate relevant questions about readings on issues that can be researched.
2, 3, 4, 5	**2.4**	Synthesize the content from several sources or works by a single author dealing with a single issue; paraphrase the ideas and connect them to other sources and related topics to demonstrate comprehension.
All activities	**2.5**	Extend ideas presented in primary or secondary sources through original analysis, evaluation, and elaboration.
Writing		
Activity	**Standard**	**Description**
All activities	**1.1**	Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.
All activities	**1.4**	Develop the main ideas within the body of the composition through supporting evidence (e.g., scenarios, commonly held beliefs, hypotheses, definitions).
All activities	**2.3.a**	Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.
All activities	**2.3.b**	Convey information and ideas from primary and secondary sources accurately and coherently.
All activities	**2.3.c**	Make distinctions between the relative value and significance of specific data, facts, and ideas.
All activities	**2.3.d**	Include visual aids by employing appropriate technology to organize and record information on charts, maps, and graphs.
All activities	**2.3.f**	Use technical terms and notations accurately.
All activities	**2.4.a**	Structure ideas and arguments in a sustained and logical fashion.
All activities	**2.4.c**	Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, and expressions of commonly accepted beliefs and logical reasoning.

Listening and Speaking		
Activity	**Standard**	**Description**
All activities	**1.1**	Formulate judgments about the ideas under discussion and support those judgments with convincing evidence.
All activities	**1.6**	Present and advance a clear thesis statement and choose appropriate types of proof (e.g., statistics, testimony, specific instances) that meet standard tests for evidence, including credibility, validity, and relevance.
All activities	**2.2.a**	Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.
All activities	**2.2.b**	Convey information and ideas from primary and secondary sources accurately and coherently.
All activities	**2.2.c**	Make distinctions between the relative value and significance of specific data, facts, and ideas.
All activities	**2.2.d**	Include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs.
All activities	**2.2.f**	Use technical terms and notations accurately.
California Mathematics Content Standards Algebra I - Grades 8 - 12		
Activity	**Standard**	**Description**
1, 3, 4	**1.1**	Students use properties of numbers to demonstrate whether assertions are true or false.
1, 3, 4	**10.0**	Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.
1, 3, 4	**13.0**	Students add, subtract, multiply, and divide rational expressions and functions. Students solve both computationally and conceptually challenging problems by using these techniques.
3,	**17.0**	Students determine the domain of independent variables and the range of dependent variables defined by a graph, a set of ordered pairs, or a symbolic expression.
3, 4	**24.2**	Students identify the hypothesis and conclusion in logical deduction.
1, 3, 4	**25.1**	Students use properties of numbers to construct simple, valid arguments (direct and indirect) for, or formulate counterexamples to, claimed assertions.