CELL BIOLOGY AND CANCER

Tennessee Science Curriculum Standards– Biology

Activity	Standard	Learning Expectation
2	1.1	Compare and contrast the chemistry of biomolecules and investigate their roles in cell structure and metabolism.
2	1.4	Analyze cell processes.
5	2.4	Analyze innate and learned behaviors and relate these to the survival of organisms.
2, 3, 4, 5	4.6	Investigate the causes and effects of mutations.
2, 3	4.7	Identify the causes and effects of genetic disorders in plants and animals.
3	6.2	Investigate how mutation, natural selection, and adaptation impact the emergence of new species.

Tennessee Science Curriculum Standards– Anatomy and Physiology

Activity	Standard	Learning Expectation
2, 3	3.8	Analyze diseases as related to each system.

Tennessee Mathematics Curriculum Standards – Algebra I

Activity	Standard	Learning Expectation
3	1.2	Demonstrate an understanding of the relative size of rational and irrational numbers.
3	1.7	Use real numbers to represent real-world applications (e.g., slope, rate of change, probability, and proportionality).
1, 3	1.9	Select and apply an appropriate method (i.e., mental mathematics, paper and pencil, or technology) for computing with real numbers, and evaluate the reasonableness of results.
3	1.10	Perform operations on algebraic expressions and informally justify the procedures chosen.
3	2.6	Apply and interpret rates of change from graphical and numerical data.
3	2.7	Analyze graphs to describe the behavior of functions.
3	2.8	Interpret results of algebraic procedures.
3	2.10	Interpret graphs that depict real-world phenomena.

1, 3	2.11	Model real-world phenomena using functions and graphs.
1, 3	5.4	Choose, construct, and analyze appropriate graphical representations for a data set.
1, 3	5.5	Demonstrate an understanding of the concept of random sampling.
3	5.7	Model situations to determine theoretical and experimental probabilities.

Tennessee English/Language Arts Curriculum Standards – English I		
Activity	**Standard**	**Learning Expectation**
1, 3	2.1.B	Distinguish fact from opinion in a passage or writing sample.
1, 2, 3	2.2.A	Draw inferences from selected passages.
1, 2, 3	2.2.B	Determine the meaning of a word in context.
2, 3	2.2.F	Discern an implied main idea from a passage.
2, 3, 4, 5	3.1.A	Draw an inference from a non-print medium.
4, 5	3.2.A	Select the type of conflict represented in a non-print medium.
4, 5	3.2.C	Select the appropriate persuasive device in a given ad (e.g., testimonial, bandwagon, loaded words, misuse of statistics).
4, 5	4.2.A	Determine the appropriate preparation (e.g., length and timing, rate of speech, visual aids, diction) for an oral presentation to a specified audience or a special interest group.

Tennessee Health Lifetime Wellness Standards – Grades 9 - 12		
Activity	**Standard**	**Learning Expectation**
1, 2, 3	1.1	Differentiate between communicable and non-communicable diseases.
2, 3, 5	1.2	Determine heredity, environmental, and lifestyle factors that place the student at risk for disease.
2	1.3	Describe different types of pathogens and how they affect health.
1, 2, 3	1.5	Identify prevention, causes, warning signs, and treatment for non-communicable diseases.
5	1.6	Identify appropriate community agencies providing resources for disease information and support.
5	4.11	Identify resources and facilities in the community that relate to physical fitness and wellness.