HUMAN GENETIC VARIATION		
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.
4	**2.4**	Analyze innate and learned behaviors and relate these to the survival of organisms.
1, 2, 5	**4.4**	Apply the principles of Mendelian inheritance to make predictions about offspring.
2	**4.6**	Investigate the causes and effects of mutations.
2, 5	**4.7**	Identify the causes and effects of genetic disorders in plants and animals.
3, 5	**4.8**	Investigate the scientific and ethical ramifications of genetic engineering, recombinant DNA, selective breeding, hybridization, cell and tissue culturing, transgenic animals, and DNA fingerprinting.
2, 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	**1.2**	Investigate the structure of the major body systems and relate the functions.
2, 3	**3.8**	Analyze diseases as related to each system.
Tennessee Mathematics Curriculum Standards – Algebra I		
Activity	**Standard**	**Learning Expectation**
2, 3, 4	**1.2**	Demonstrate an understanding of the relative size of rational and irrational numbers.
1, 2, 3, 4	**1.7**	Use real numbers to represent real-world applications (e.g., slope, rate of change, probability, and proportionality).
2	**1.8**	Use a variety of notations appropriately (e.g. exponential, functional, square root).
1, 2, 3, 4	**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	**2.8**	Interpret results of algebraic procedures.
1	**2.10**	Interpret graphs that depict real-world phenomena.
1, 3, 4	**2.11**	Model real-world phenomena using functions and graphs.
3, 4	**5.4**	Choose, construct, and analyze appropriate graphical representations for a data set.
4	**5.7**	Model situations to determine theoretical and experimental probabilities.
Tennessee English/Language Arts Curriculum Standards – English I		
Activity	**Standard**	**Learning Expectation**
2, 3, 4	**2.1.B**	Distinguish fact from opinion in a passage or writing sample.
2, 3, 4	**2.2.A**	Draw inferences from selected passages.
2, 3, 4	**2.2.B**	Determine the meaning of a word in context.
2, 3, 4	**2.2.F**	Discern an implied main idea from a passage.
1, 2, 5	**3.1.A**	Draw an inference from a non-print medium.
3, 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**
2, 3, 4	**1.1**	Differentiate between communicable and non-communicable diseases.
2, 3, 4, 5	**1.2**	Determine heredity, environmental, and lifestyle factors that place the student at risk for disease.
2, 3, 4, 5	**1.5**	Identify prevention, causes, warning signs, and treatment for non-communicable diseases.
2, 3, 4, 5	**1.6**	Identify appropriate community agencies providing resources for disease information and support.
4, 5	**4.11**	Identify resources and facilities in the community that relate to physical fitness and wellness.