

USING TECHNOLOGY TO STUDY CELLULAR AND MOLECULAR BIOLOGY		
Connecticut Science Academic Standards – Grade 10		
Lesson	Standard	Expected Performances
3	D INQ.1	Identify questions that can be answered through scientific investigation.
3	D INQ.3	Formulate a testable hypothesis and demonstrate logical connections between the scientific concepts guiding the hypothesis and the design of the experiment.
3	D INQ.4	Design and conduct appropriate types of scientific investigations to answer different questions.
1, 2, 3	D INQ.6	Use appropriate tools and techniques to make observations and gather data.
1, 2, 3	D INQ.7	Assess the reliability of the data that was generated in the investigation.
1	D INQ.8	Use mathematical operations to analyze and interpret data, and present relationships between variables in appropriate forms.
All lessons	D INQ.9	Articulate conclusions and explanations based on research data, and assess results based on the design of the investigation.
All lessons	D INQ.10	Communicate about science in different formats, using relevant science vocabulary, supporting evidence and clear logic.
1	D 31.	Describe the similarities and differences between bacteria and viruses.
3	D 32.	Describe how bacterial and viral infectious diseases are transmitted, and explain the roles of sanitation, vaccination and antibiotic medications in the prevention and treatment of infectious diseases.
Connecticut Mathematics Academic Standards – Grades 9 - 12		
Lesson	Standard	Expected Performances
2	1.1.a.1	Identify, describe, create and generalize numeric, geometric and statistical patterns with tables, graphs, words and symbolic rules.
2, 3	1.1.a.2	Make and justify predictions based on patterns.
1, 2	2.1.a.1	Compare, locate, label and order real numbers on number lines, scales, coordinate grids and measurement tools.

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1, 2, 3	2.1.a.2	Select and use an appropriate form of number (integer, fraction, decimal, ratio, percent, exponential, scientific notation, irrational) to solve practical problems involving order, magnitude, measures, labels, locations and scales.
1	2.2.a.1	Select and use appropriate methods for computing to solve problems in a variety of contexts.
1	3.3.a.1	Select appropriate units, scales, degree of precision, and strategies to determine length, angle measure, perimeter, circumference and area of plane geometric figures.
1, 2	4.1.a.1	Collect real data and create meaningful graphical representations of the data.
2	4.2.a.2	Use data from samples to make inferences about a population and determine whether claims are reasonable or false.

Connecticut English Academic Standards – Grades 9 - 12

Lesson	Standard	Expected Performances
All lessons	1.1.a	Activate prior knowledge, establish purposes for reading and adjust the purposes while reading.
All lessons	1.1.b	Determine and apply the most effective means of monitoring comprehension and apply the appropriate strategies.
All lessons	1.1.c	Select and organize relevant information from text to summarize
All lessons	1.1.e	Draw conclusions and use evidence to substantiate them by using texts heard, read and viewed.
All lessons	1.1.f	Make and justify inferences from explicit and or implicit information.
All lessons	1.2.a	Generate and respond to questions.
All lessons	1.2.b	Interpret information that is implied in a text.
All lessons	1.2.c	Distinguish between fact and opinion.
All lessons	1.2.e	Discuss and respond to texts by making text-to-self, text-to-text and text-to-world connections.
All lessons	1.3.c	Analyze the meaning of words and phrases in context.
All lessons	1.3.d	Develop vocabulary through listening, speaking, reading and writing.
All lessons	1.3.e	Use content vocabulary appropriately and accurately (math, music, science, social studies, etc.).
All lessons	1.4.a	Respond to the ideas of others and recognize the validity of differing views.
All lessons	3.1.a	Use oral language with clarity, voice and fluency to communicate a message.
All lessons	3.1.c	Use the appropriate features of persuasive, narrative, expository or poetic writing.

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All lessons	3.2.a	Determine the purpose, point of view and audience, and choose an appropriate written, oral or visual format.
All lessons	4.2.a	Use sentence patterns typical of spoken and written language to produce text.
All lessons	4.3.b	Demonstrate proficient use of proper mechanics, usage and spelling skills.
Connecticut Health Academic Standards – Grades 9 - 12		
Lesson	Standard	Expected Performances
3	3.f	Apply the decision-making process, individually and collaboratively, to address health issues.