USING TECHNOLOGY TO STUDY CELLULAR AND MOLECULAR BIOLOGY		
Wisconsin Model Academic Standards for Science – Grade 12		
Lesson	**Standard**	**Description**
3, 4	**A.12.1**	Apply the underlying themes of science to develop defensible visions of the future.
3	**A.12.5**	Show how the ideas and themes of science can be used to make real-life decisions about careers, work places, life-styles, and use of resources.
2, 3	**A.12.6**	Identify and, using evidence learned or discovered, replace inaccurate personal models and explanations of science-related events.
2, 3	**A.12.7**	Re-examine the evidence and reasoning that led to conclusions drawn from investigations, using the science themes.
3, 4	**B.12.3**	Relate the major themes of science to human progress in understanding science and the world.
3, 4	**B.12.4**	Show how basic research and applied research contribute to new discoveries, inventions, and applications.
2, 3	**C.12.1**	When studying science content, ask questions suggested by current social issues, scientific literature, and observations of phenomena, build hypotheses that might answer some of these questions, design possible investigations, and describe results that might emerge from such investigations.
3	**C.12.2**	Identify issues from an area of science study, write questions that could be investigated, review previous research on these questions, and design and conduct responsible and safe investigations to help answer the questions.
2, 3	**C.12.3**	Evaluate the data collected during an investigation, critique the data-collection procedures and results, and suggest ways to make any needed improvements.
2, 3	**C.12.5**	Use the explanations and models found in the earth and space, life and environmental, and physical sciences to develop likely explanations for the results of their investigations.
2, 3	**C.12.6**	Present the results of investigations to groups concerned with the issues, explaining the meaning and implications of the results, and answering questions in terms the audience can understand.
3	**F.12.2**	Understand how cells differentiate and how cells are regulated.
2, 3	**G.12.2**	Design, build, evaluate, and revise models and explanations related to the earth and space, life and environmental, and physical sciences.
3, 4	**G.12.3**	Analyze the costs, benefits, or problems resulting from a scientific or technological innovation, including implications for the individual and the community.

4	**G.12.4**	Show how a major scientific or technological change has had an impact on work, leisure, or the home.
3	**G.12.5**	Choose a specific problem in our society, identify alternative scientific or technological solutions to that problem and argue it merits.
3	**H.12.3**	Show how policy decisions in science depend on social values, ethics, beliefs, and time frames as well as considerations of science and technology.
2, 3	**H.12.4**	Advocate a solution or combination of solutions to a problem in science or technology.
2, 3, 4	**H.12.6**	Evaluate data and sources of information when using scientific information to make decisions.
2, 3, 4	**H.12.7**	When making decisions, construct a plan that includes the use of current scientific knowledge and scientific reasoning.
Wisconsin Model Academic Standards for Mathematics – Grade 12		
Lesson	**Standard**	**Description**
1, 2, 3	**A.12.1**	Use reason and logic to evaluate information, perceive patterns, identify relationships, formulate questions, pose problems, and make and test conjectures, and pursue ideas that lead to further understanding and deeper insight.
1, 2, 3	**A.12.3**	Analyze non-routine problems and arrive at solutions by various means, including models and simulations, often starting with provisional conjectures and progressing, directly or indirectly, to a solution, justification, or counter-example.
1, 2	**A.12.5**	Organize work and present mathematical procedures and results clearly, systematically, succinctly, and correctly.
1	**B.12.2**	Compare real numbers using order relations (>,<) and transitivity, ordinal scales including logarithmic (e.g., Richter, pH rating), arithmetic differences, ratios, proportions, percents, or rates of change.
1	**B.12.3**	Perform and explain operations on real numbers (add, subtract, multiply, divide, raise to a power, extract a root, take opposites and reciprocals, determine absolute value).
2	**B.12.5**	Create and critically evaluate numerical arguments presented in a variety of classroom and real-world situations (e.g., political, economic, scientific, social).
1, 2	**D.12.2**	Select and use tools with appropriate degree of precision to determine measurements directly within specified degrees of accuracy and error (tolerance).
1, 2	**E.12.1**	Work with data in the context of real-world situations by formulating hypotheses that lead to collection and analysis of one- and two-variable data, designing a data collection plan that considers random sampling, control groups, the role of assumptions, etc., conducting an investigation based on that plan, and using technology to generate displays, summary statistics, and presentations.

1, 2	**F.12.4**	Model and solve a variety of mathematical and real-world problems by using algebraic expressions, equations, and inequalities.
Wisconsin Model Academic Standards for English Language Arts – Grade 12		
Lesson	**Standard**	**Description**
1, 3, 4	**A.12.1**	Use effective reading strategies to achieve their purposes in reading.
1, 3, 4	**A.12.4**	Students will read to acquire information.
1, 3, 4	**B.12.1**	Create or produce writing to communicate with different audiences for a variety of purposes.
All lessons	**B.12.3**	Understand the function of various forms, structures, and punctuation marks of standard American English and use them appropriately in oral and written communications.
3, 4	**C.12.1**	Prepare and deliver formal oral presentations appropriate to specific purposes and audiences.
All lessons	**C.12.2**	Listen to, discuss, and comprehend oral communications.
All lessons	**C.12.3**	Participate effectively in discussion.
All lessons	**D.12.1**	Develop their vocabulary and ability to use words, phrases, idioms, and various grammatical structures as a means of improving communication.
2, 3	**E.12.1**	Use computers to acquire, organize, analyze, and communicate information.
2, 3, 4	**F.12.1**	Conduct research and inquiry on self-selected or assigned topics, issues, or problems and use an appropriate form to communicate their findings.
Wisconsin Model Academic Standards for Health Education – Grade 12		
Lesson	**Standard**	**Description**
3	**A.12.3**	Describe how to enhance health and reduce risks throughout life.
3	**A.12.4**	Analyze how the prevention and control of health problems are influenced by education, research, and advances in all health-care fields.
3, 4	**E.12.3**	Evaluate the impact of technology on personal, family, and community health.
All lessons	**F.12.1**	Demonstrate skills to communicate effectively with family, peers, and others.
3	**G.12.1**	Evaluate the effectiveness of various methods to accurately express health information and ideas.