



Louisiana Grade 7 GLEs addressed by STEM Field Trip

Science as Inquiry	
2. Identify problems, factors, and questions that must be considered in a scientific investigation (SI-M-A1)	Using WWII as a scenario for real-world scientific application
4. Design, predict outcomes, and conduct experiments to answer guiding questions (SI-M-A2)	STEM Field trip contains a contest involving students designing, hypothesizing, and testing a vehicle
5. Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment (SI-M-A2)	Design contest stresses variables and the proper method of change and testing
27. Recognize that science uses processes that involve a logical and empirical, but flexible, approach to problem solving (SI-M-B1)	Under the stress of WWII, flexibility was key to meet time constraints
33. Evaluate models, identify problems in design, and make recommendations for improvement (SI-M-B4)	Students evaluate WWII-era Higgins Boats, identify limitations, and pose modifications/improvements
34. Recognize the importance of communication among scientists about investigations in progress and the work of others (SI-M-B5)	The Manhattan Project was the largest-scale example of scientific collaboration up to that point
Life Science	
14. Differentiate between sexual and asexual reproduction (LS-M-B1)	Examining binary fission in bacteria to understand how penicillin treats infections.
Mathematics	
10. Determine and apply rates and ratios (N-8-M)	Students will determine inches per second in a design challenge and apply them to their goal.
14. Write a real-life meaning of a simple algebraic equation or inequality, and vice versa (A-1-M) (A-5-M)	In determining the range of a target, students will be transferring an algebraic equation to a real-world situation.
30. Apply the knowledge that the measures of the interior angles in a triangle add up to 180 degrees (G-7-M)	In calculating trajectories and determining firing range, students will use the properties of triangles to determine both distance and angle
35. Use informal thinking procedures of elementary logic involving <i>if/then</i> statements (D-3-M)	When cracking a coded message, students use <i>if/then</i> and probability statements to arrive at their answer.

