



Louisiana Grade 6 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
Physical Science	
35. Describe and give examples of how all forms of energy may be classified as potential or kinetic energy (PS-M-C1)	The vehicle for the design challenge is a lesson on potential and kinetic energy
46. Identify ways people can reuse, recycle, and reduce the use of resources to improve and protect the quality of life (SE-M-A6)	Critical thinking activity in the Home Front involves looking at reuse/recycle/reduce during the War
Mathematics	
17. Find solutions to 2-step equations with positive integer solutions (e.g., $3x - 5 = 13$, $2x + 3x = 20$) (A-2-M)	Students will use equations to find the range of a target in the ocean.
20. Calculate, interpret, and compare rates such as \$/lb., mpg, and mph (M-1-M) (A-5-M)	Students will calculate inches per second in a design challenge and compare their results
26. Apply concepts, properties, and relationships of points, lines, line segments, rays, diagonals, circles, and right, acute, and obtuse angles and triangles in real-life situations, including estimating sizes of angles (G-2-M) (G-5-M) (G-1-M)	Students calculate firing trajectories using angles
31. Demonstrate an understanding of precision, accuracy, and error in measurement (D-2-M) (M-2-M)	Students test their firing trajectories for precision in hitting a target. Students then recalculate.

