Physics, Technology and Engineering in Automobile Racing
Culminating Projects

Consider introducing these projects at the outset of the unit Physics, Technology and Engineering in Automobile Racing so students can gather information along the way. These projects are designed as opportunities for students to demonstrate their learning and their response to the question, "What physics concepts can be learned by analyzing automobile racing?"

Choose the project option or options that best fit your class's needs:

Online Individual Project

ExhibitBuilder:
Curate Your Own Exhibition

Create your own exhibitions through **The Henry Ford's** website, TheHenryFord.org/education. Using what you've learned in this unit, the digitized images and the website, design an exhibition to illustrate physics and engineering concepts. Begin with the concept of innovation in automobile racing as well as in passenger cars. You might extend the project to include innovations in other science and technology areas, such as flight or electricity.

Off-line Individual Project

Innovations in Automobile Racing

Write a paper on innovations in automobile racing. Follow the history of the automobile and automobile racing from the early 1900s to modern times. The paper should include engineering concepts and the development of various safety features. Consider focusing on one of the following types of automobile racing: NASCAR (stock car), Indy style, Formula One or drag racing.

Off-line Team Project

Group Work Rapid Problem Solving

Work in groups of 4-6 people. Choose an object to disassemble and reassemble in a short amount of time. As you learned in this unit, during racing every second counts, so think about the importance of teamwork and organization. Keep the object to a reasonable size that can be brought into the classroom. Bring the object into the classroom and demonstrate your team's skills for the class. This project should be judged on how the team uses the skills of every member and how rapidly the team disassembles and reassembles the object.