Science, Life Skills and Innovations in American Automobile Racing
Culminating Projects

These projects are designed as opportunities for students to demonstrate their learning through this entire unit. Introduce the projects at the outset of the unit Science, Life Skills and Innovations in American Automobile Racing so that students can gather information along the way.

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

Individual Project

Designing Paper Airplanes

Design and build a paper airplane. After the airplanes are built, bend one part of the wing so that the airplane will make the following maneuvers when it is thrown:

A Fly straight and far

B Make a nose dive

C Make a rapid turn upward

D Follow a curved path to the left

E Follow a curved path to the right

You and your classmates will vote on the design that performs each of these maneuvers the best.

Online Individual Project

ExhibitBuilder: Curate Your Own Exhibition

Create your own exhibitions through **The Henry Ford** website, using digital artifacts and the ideas and information that you've learned through this unit to design an exhibition to illustrate physics and engineering concepts. Begin with the concept of innovation in auto racing and in automobile design. You might extend the concept to include innovations in other science and technology areas such as flight or electricity. Use **The Henry Ford's** Transportation in American Life website to access ExhibitBuilder – or click here.

Wind Racer Car

Build cars out of any lightweight objects or materials available. Attach some sort of device to each car to act as a sail. The dimensions of the car and attachment should not exceed 10 inches tall, 10 inches wide and 10 inches long. Place a fan in the middle of a hall in your school, aiming it straight down the hall. Mark off a starting line in front of the fan and a finish line 10 feet farther away (or use a longer or shorter distance, according to teacher direction, if desired). Aim your car so that when the fan is turned on, your car will race down the hall for the predetermined distance. Time each car, one car at a time. The winner will be the car that travels the distance from starting line to finish line in the least amount of time.

Biography of a Racer

Write a paper about the life of a current or former race driver. Address some of the following questions in your biography:

A What type of racing has the driver done?

B When did the driver begin racing?

C What influenced his or her decision to become a race car driver?

D What kinds of successes and disappointments has this driver encountered?

E Has the driver been involved in any particular innovative designs for his or her car?

F What does the driver's current car look like?