

Context-Setting **Activities**

These activities are excellent ways to prepare and excite your students for the *Physics, Technology and Engineering in Automobile Racing* Unit Plan or for a visit to **The Henry Ford**.

Pictures of Race Car Innovations

Ask students to find and bring in pictures of innovations in automobile racing cars. These pictures might be from the Internet, newspapers or magazines. Ask the students to explain why the innovations are important to both automobile race drivers and spectators. Discuss whether these innovations for automobile racing would also be appropriate to adopt for passenger cars and trucks.

Innovation Contest

Ask the students to each come up with an innovative idea of his or her own that might be incorporated into either a race car or a passenger car. Encourage inventive and imaginative thinking. Tell the students that what may seem to be a ridiculous idea now might be developed into a workable idea later. Have the students explain their innovative ideas to the class and let the class choose the best ideas.

Race Car Design Contest

Have the students design and build a race car to roll down a ramp. All cars will roll down a 12-foot ramp that is elevated 1 or 2 feet at the starting end. The ramp should be 8 or 10 inches wide. Race cars must be home-built; the material might be LEGO® bricks, balsa wood or some other building material. No car should be longer than 10 inches. The track may either have sides to keep the cars on the track or no sides, to make it more challenging. If the ramp does not have sides, then the car must stay on the track or ramp all the way down to qualify. To determine the winner, time each race car individually over the same distance; the winner will be the car that makes it down the ramp in the least amount of time.