

Electric Vehicles



About the Series

Coming up with better ways to get where we need to go and power the lives we live requires development of new technologies, along with research to help us minimize the impact of these technologies on our environment. The overall goal of this series is to encourage people to ask questions and look beyond fossil fuels for innovative solutions to our ever-growing energy needs. Interest in science and technology provides the necessary foundation for our future in a world powered by clean energy. The series also provides insight into what careers in science, engineering and other topics related to clean energy technologies are really like.

In this Episode

Host Lisa Van Pay visits the scientists and engineers working to make the electric car of the future a reality today. One of the toughest parts is storing enough potential energy to get you where you're going, and in this case, it's all about the battery.

Graduate student Katharine Stroukoff from the University of Texas-Austin explains how her research may help build a better battery, while Mike Nawrot and Dan Lauber, members of the MIT electric vehicle team, describe the advantages of their fully electric Porsche 914. They also explain how they are working to improve some of the problems associated with electric vehicles, such as battery life and charge time.

By combining better storage capability with electricity generated from clean sources, these researchers are working to make your trip to the mall cleaner and greener.

Concepts

- Energy is the ability to cause motion or create change.
- Stationary and moving charged particles result in the phenomena known as electricity and magnetism.
- Engineering design involves practical problem solving, research, development and invention/innovation, and requires designing, drawing, building, testing and redesigning.

Content Standards

Physics
Technology/Engineering
High school*

- 1.8 Describe conceptually the forces involved in circular motion.
- 5.5 Explain how electric current is a flow of charge caused by a potential difference (voltage), and how power is equal to current multiplied by voltage.
- 1.2 Solve problems and advance society through use of the engineering design process.