

ELECTRIC VEHICLES



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We've all grown used to stopping at the gas station, the smell of exhaust, and worrying about global warming. But thanks to stronger lithium-ion batteries and computer controlled brakes that generate electricity (see <http://1.usa.gov/OjSwCz>) the days of gas-powered cars are numbered. Let's learn about electric vehicles, also known as EVs.

1. Quick! How many electric vehicles can you name?
There's the Nissan Leaf and the Chevy Volt. But did you know about the Fiat 500 Elettra (pictured charging, above) or the Smart Fortwo Electric Drive (right). At National Geographic <http://bit.ly/Ovoy09> you can see 11 types of EVs coming by next year. While you're there, take the test <http://on.natgeo.com/Imtsg> to see how much know about electric cars and fuel.



2. Can race cars be electric? What about school buses?
Yes in both cases. Visit <http://bit.ly/PSg2GW> to learn about The Nemesis electric car, a modified Lotus Exige which hit a top speed of 148.7 mph with batteries charged by wind turbines. At <http://www.afdc.energy.gov/case/625> you can learn how a school district in Michigan uses an electric bus. Learn more at <http://www.michigancleancities.org>.

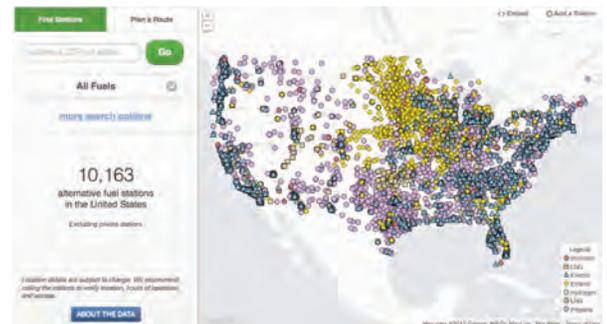


4. How many miles can an electric car go on a single charge?
According to Green Car Reports <http://hgm.me/UgJOaN> most common electric cars, like the Chevy Volt, can go for about 40 miles on a single charge. A very light electric car in Germany, called "Boozer" went over 1000 miles, but it took over 36 hours and a special track. See <http://phys.org/news/2011-08-boozer-ev-miles-plus.html>

5. Q. What weighs more: a Sumo wrestler or the battery in a Chevy Volt?
A. They're about the same: 400 lbs, according to <http://bit.ly/jDSNAU>. The batteries are made by LG, a Korean company who runs a battery factory in Holland, Michigan. Visit the plant and see the batteries, at <http://bit.ly/hlZgk9>.

APPLICATION: Talk your parents into switching to an EV.
STEP 1: Find a charging station by entering your zip code at <http://www.afdc.energy.gov/locator/stations>.
STEP 2: Tell them how to charge a car. Nissan Leaf takes about 10 hours to charge using a standard wall outlet, or two hours with a charging station you install in your garage. If electricity were gas, this would equal about \$.80 cents per gallon using current costs. STEP 3: Look at some new cars online. You can get a tax credit that brings the price to about \$29,000. Here are links to popular models.

- Chevy Volt <http://bit.ly/NMze4x>
- Ford C-Max <http://myfrd.co/SzX1qy>
- Nissan Leaf <http://bit.ly/bjtY9S>



YouTube™ LittleClickers YouTube Playlist: Electric Cars

<http://www.youtube.com/playlist?list=PLcBVHzUUEKwnPiE3UF3wB6GSTp0ooH1xW>



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