

2011

MAKES EDUCATION A DAY a world of opportunities

GREEN GO-POWER!



Vehicles have a huge impact on the environment, which is why auto manufacturers are using innovation and technology to produce green vehicles. Green vehicles are cars that use alternative fuels, have improved gas mileage or reduce the carbon that is released by the car making them more friendly to the environment.

2011 CHEVROLET VOLT

Match the descriptions of various types of green technology and alternative fuels to their correct names.

A. Electric Cars

B. Ethanol

C. Biodiesel

D. Hydrogen Cars

E. Hybrids

F. Plug In Hybrids

G. Natural Gas

H. Air Powered Cars

- ___ 1. Use two or more power systems, such as a gasoline engine and an electric drive motor, to provide more efficient propulsion. Get most of their power from the regular internal combustion engine.
- ___ 2. Use one or more electric drive motors, powered by batteries, for zero-emission motoring.
- ___ 3. An alcohol-based alternative fuel made from biomass.
- ___ 4. Among the cleanest cars on the road, emitting oxygen and water vapor only.
- ___ 5. A clean-burning alternative fossil fuel that can easily power internal combustion engine vehicles.
- ___ 6. Get most of their power from the electric motor, which acts as primary, while the internal combustion engine acts as back-up.
- ___ 7. A renewable alternative fuel made from various sources ranging from waste vegetable oil to soybeans.
- ___ 8. Currently being explored as a viable "alternative fuel" to efficiently power car engines with little or no environmental impact.

The 2011 Chevrolet Volt was the Green Car Journal's 2011 Green Car of the Year. The Volt is neither a hybrid car nor an electric car. Chevrolet calls it an extended range electric car. Basically, it acts as an electric car on most days, but operates like a conventional car when it's time for a road trip. The Volt can travel 25 to 50 miles on only battery power.

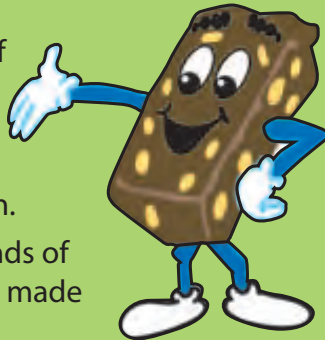
MATCH THE PICTURES of the top 5 green cars for 2012 (as rated by GREEN CAR JOURNAL) to their correct names.



- ___ 1. Mitsubishi i
- ___ 2. Ford Focus Electric
- ___ 3. Honda Civic Natural Gas
- ___ 4. Toyota Prius v
- ___ 5. Volkswagen Passat TDI

“AUTO” KNOW - AUTO SHOW FUN FOOD FACTS!

1. Ryba’s Fudge Shop makes 40 batches of fudge each day of the show. There are 15 pounds of fudge in every batch.



- A. How many pounds of Ryba’s fudge are made each day?
- B. How many pounds in 10 days?



2. The food court at the auto show serves 32,000 slices of pizza the week of the show. If the pizza has 8 slices, how many pizzas are made?

3A. Over 70,000 bottles of soda pop are served during the auto show. If each bottle holds 16 ounces, how many ounces of soda pop would be served?

3B. **THINK MORE ABOUT IT!** How many gallons of soda pop would that be? (Hint: There are 128 ounces in a gallon.)



EXPLORE **NAIAs** AND **CAREERS!**

Have you ever thought about what it takes to create a show like the North American International Auto Show? Listed below are only a few of the people who work together to produce the event.

Read the following areas of interest and descriptions, write the number of the item that matches each area.

A.



___ 1. **GRAPHIC DESIGNER** – creates print or electronic forms of visual information, to use in advertisements, publication or website for the show.

B.



___ 2. **LAW ENFORCEMENT** – Makes sure the people that attend the show are safe and following the rules.

C.



___ 3. **CULINARY ARTS TEAM** – Responsible for preparing food for all of the events that take place during the auto show.

D.



___ 4. **JOURNALIST** – 5,000 international media from 60 countries attended the 2011 North American International Auto Show to collect news to be presented in newspapers, magazines, and to be broadcasted on radio or television.

E.



___ 5. **SET CONSTRUCTION** – Works with each exhibitor to create every display you see at the show.

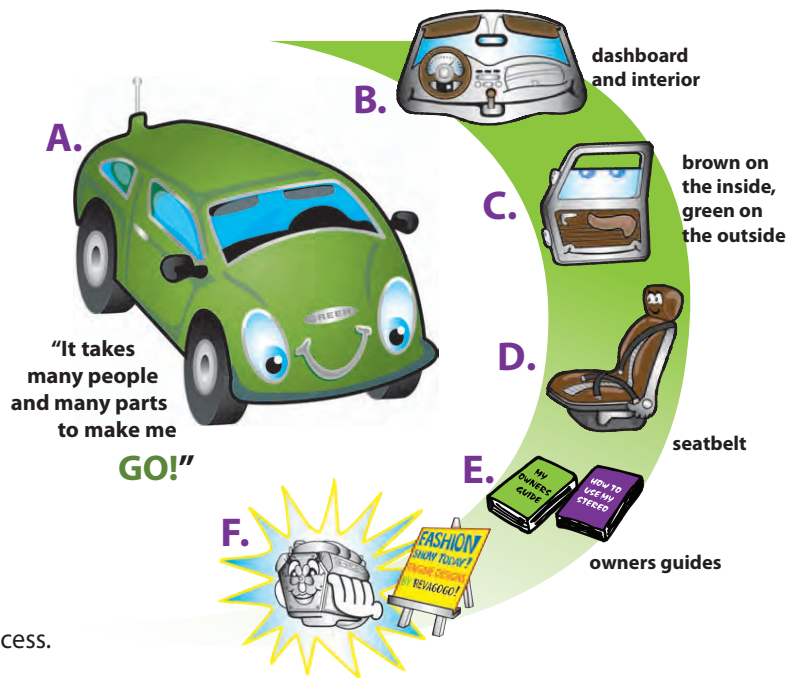
EXPLORE CARS AND CAREERS!

- DO YOU THINK cars are cool?
- DO YOU LIKE making or creating things?
- DO YOU THINK using computers to explore and learn is fun?
- DO YOU LIKE math and science?

If you answered yes to any of these questions, you have some of the same interests as automotive designers who create cars and trucks. These people use math, science and technology in their careers every day! Listed below are a few of the people who work together to make a car.

Read the automotive job titles and descriptions, write the number of the car part each might have created.

- EXTERIOR DESIGNER**- Designs what the outside of the car will look like, including the shape and location of the headlights.
- COLOR AND TRIM DESIGNER**- Decides what color the inside and outside of the car will be.
- INTERIOR DESIGNER**- Designs what the inside of the car will look like.
- SAFETY ENGINEER**- Makes sure the items that are responsible for saving your life, even if other things break, will still work.
- MECHANICAL ENGINEER**- Works on many parts of the car, including the engine.
- GRAPHIC DESIGNER**- Creates emblems, badges, decals, dial faceplates, owners guides and instruction pamphlets, technical illustrations and exploded views of the vehicles for the building process.



GLOBALLY SPEAKING!

Vehicles and their parts are made by companies in many countries around the world. Many of these companies exhibit and display vehicles at the North American International Auto Show.

Some of these auto manufacturers and their country's word for "hello" are listed below. Match each with the clue for the country where the company made its first vehicle.

- Maybach - "HALLO" or "GUTEN TAG"
- Maserati - "BUON GIORNO" (bwon-JOR-noh)
- General Motors Corporation - "HELLO"
- Honda Motor Company - "KONICHIWA" (koh-Nee-chee-wah)
- Ford Motor Company - "HELLO"
- Toyota Motor Corporation - "KONICHIWA" (koh-Nee-chee-wah)
- Chrysler Corporation - "HELLO"
- Their world headquarters is located in Auburn Hills, MI - U.S.A.
- This Japanese company got its start making motorcycles.
- This car company creates a very expensive car that is made by hand in Germany.
- Their first headquarters was in Bologna, Italy.
- Flint, MI is considered the birthplace of this American auto company.
- Sakichi Toyoda started this company in Japan.
- Henry's Model T will be 104 years old this year. The world headquarters of the company he started is in Dearborn, MI - U.S.A.

Can you help the **CAR** get to Cobo Center for the
**NORTH AMERICAN INTERNATIONAL
AUTO SHOW**

