WHY DO ENGINEERS WANT TO DESIGN ENERGY-EFFICIENT CARS?





Image Source: VOA, 2017, Public Domain, https://commons.wikimedia.org/wiki/File:Cars_in_gas_station_before_Hurricane_Irma.jpg

Image Source: Igors Jefimovs, 2014, CC BY 3.0, https://commons.wikimedia.org/wiki/File:Smog_over_Almaty.jpg







ENERGY-EFFICIENT CARS



Image Source: AngMoKio, 2010, CC BY-SA 3.0, https://commons.wikimedia.org/wiki/File:Lamborghini_Super_Trofeo_99_2010_amk.JPG

Teach Engineering [anite STEM learning in K-12]

Integrated Teaching & Learning Program

Aerodynamics

Sleek design to cut through air

Rolling Resistance

• Smooth, yet "sticky" tires

Weight

Light car, less energy to move



EFFICIENT CAR DESIGN CHALLENGE

Today, you will be working in teams to take on a design challenge to create a model car using popsicle sticks, lifesaver candies, straws, index cards, tape, and scissors.

Your team will have a time limit of one class period (*constraint*) to complete this design challenge.

Design and create a car that goes the fastest down a ramp!

Make sure to follow each step and answer each question in your Efficient Car Design Worksheet!



Image Source: Morio, 2012, CC BY-SA 3.0, https://commons.wikimedia.org/wiki/File:2012_WTCC_Race_of_Japan_(Race_1) _opening_lap.jpg





