

# STEMS News

The Science Technology Engineering and Mathematics School at North Springs Elementary



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## **Engineering News:** Electric Drive Concepts for the Cars of the Future

*ScienceDaily (May 18, 2010)* — In order to make electric cars a part of everyday life, new vehicle designs and parts are needed. Take wheel hub motors, for instance. One of the advantages of wheel hub motors is that manufacturers can dispense with the conventional engine bay -- the space under the "hood" or "bonnet" -- since the motors are attached directly to the wheels of the vehicle. This opens up a wealth of opportunities for car designers when drafting the layout of the vehicle.

*So, if you designed an electric car with none of the gear normally found under the hood, what would it look like?*

**STEMS Activities:** Kindergarten finished their catamarans this week and learned about water safety issues and how motors work. First grade extended what they learned about plant growth when they went on a field study to Rawl & Sons farm and processing plant in Pelion. They saw and heard about modern farming technology that includes satellite guidance of tractors. They also learned how math and technology are involved in processing, developing recipes, and packaging. Second grade studied engineering this week through their reading about how the Statue of Liberty was designed and built.

**Student quote:** *[This is an acrostic poem written by the students in Ms. Harris' first grade class to reflect upon and summarize what they have learned this year]*

**S**cience is observing, thinking, and finding out answers.

**T**echnology is programming our We-Do robots to move.

**E**ngineering is fixing cars and building things.

**M**ath is thinking, counting, measuring, and learning about shapes.

**S**chool is important, hard work, and fun!

## **Engineer of the Week:** Michael J. Massimino, Mechanical Engineer and NASA Astronaut

After graduating from MIT in 1992, Mike worked at McDonnell Douglas Aerospace in Houston, Texas as a research engineer where he developed laptop computer displays to assist operators of the Space Shuttle remote manipulator system. These displays included the Manipulator Position Display, which was evaluated on STS-69. Selected as an astronaut candidate by NASA in May 1996, Mike reported to the Johnson Space Center. In 2002, he helped to upgrade the Hubble Space Telescope. Massimino performed 2 spacewalks on that trip totaling 14 hours and 46 minutes. ~source: NASA Biographical Data