



# STARBASE Igniter

## MN Commissioner of Education Visits STARBASE

On Friday, November 16, 2007 STARBASE Minnesota and their Board of Directors hosted State of MN Commissioner of Education, Alice Seagren, St. Paul Public Schools Executive

Director of Education, Nancy Stachel, and representatives from area businesses committed to STEM (Science, Technology, Engineering, Math) education. The Commissioner's visit featured an interactive tour of STARBASE and an overview of the organization.



"H2O" demonstrates his progress building a Mars colony using ProDesktop engineering software he learned at STARBASE.



Commissioner "Star Rover" Seagren and "Fashion" discuss programming rovers and the role of robotics on a mission to Mars.

Commissioner Seagren was impressed with what she observed, stating how programs like STARBASE support the effort to bring Minnesota students from nation-leading to world-competing. Seagren described STARBASE as a "great example of what hands-on STEM education looks like" and expressed that STARBASE Minnesota "can set an example for the rest of the state." STARBASE fits with Seagren's STEM initiatives which include giving kids the opportunity to grow in areas that are extremely behind in MN. Seagren requested that the MN Department of Education and STARBASE become long term partners, including providing input on revamping MN's state science standards and conducting teacher training through the state's Math and Science Academies for Teachers.

### What is STARBASE?

- A non-profit organization committed to STEM Education
- Provides intensive and rigorous 5-day programs in STEM
- A significant part of many schools strategy for meeting state and national standards
- A growing organization, looking for opportunities to partner

The event was held at STARBASE Minnesota which is located on the Air National Guard Base in St. Paul, MN.

**"STARBASE is a great example of what hands-on STEM education looks like"**

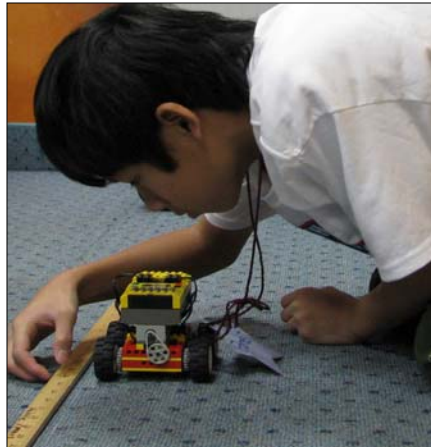
Of course the event could not have taken place without the 86 Farnsworth Aerospace Magnet students along with their teachers and principal, Dr. Troy Vincent. These students joined the over 26,000 students already served by STARBASE over the last 14 years from over 45 inner city schools in Minneapolis and St. Paul.

## STARBASE in Real Time

As much as you can explain STARBASE through pictures, testimonials and the impressive gains students who participate make, there is no better way to learn about STARBASE than to experience it for yourself in “real time”, which is exactly what the attendees were able to do.

The event began with a brief welcome and introduction by Executive Director, Kim Van Wie and Mike Thyken, Chair of STARBASE Minnesota Board of Directors.

Following introductions, the guests



“Forest” carefully collects data during the Rover Speed activity

were led into the classrooms to see Farnsworth students in action —conducting experiments with rovers, mapping the surface of Mars, and using ProDesktop design software to build and manufacture a Mars colony.

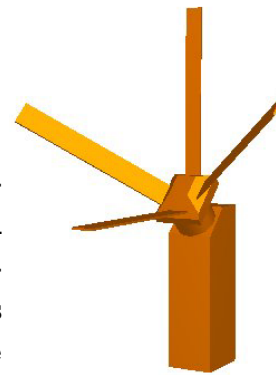
After the interactive tour, guests received more information about STARBASE, highlights of the organization and its uniqueness in the state, as well as plans for the future.

The event closed with remarks from Nancy Stachel from St. Paul Schools and Commissioner Seagren.

## Designing for the future: STARBASE and

One of the exciting lessons featured during the November event was the Mars Colony. In this culminating design challenge students use ProDesktop engineering software to design and create the infrastructure for the STARBASE Mars colony. David Belasco, a visiting engineer from ATK, was impressed with the skills the students had acquired in the engineering software in only a few days. Even more promising than the students affinity for ProDesktop is their excitement about using the program and doing the work of an engineer.

In addition to the Mars colony students collected data from Lego rovers to determine their speed. In this rover lesson students are able to work with the concept of speed in a meaningful way. Students also use coordinate graphing and measurement to create 3D models of the Martian surface. Students use information from these activities later in the week when they program their rovers to travel to locations on Mars. These activities were a great opportunity for the visitors to



Student designed windmill for Mars Colony. Each school that participates will design and build portions of the colony.

see students working with a team, problem solving and interacting with technology. One of

the important messages communicated during the November event was STARBASE Minnesota’s commitment to developing programs that meet State and National academic standards while challenging and encouraging students to see themselves actively participating in STEM education and careers.

# STARBASE Minnesota

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Visit us on the Web  
[www.starbasemn.org](http://www.starbasemn.org)



STARBASE relies on lots of volunteer support. 6th graders travel to Northwest Airlines for a first hand look at STEM careers in action.



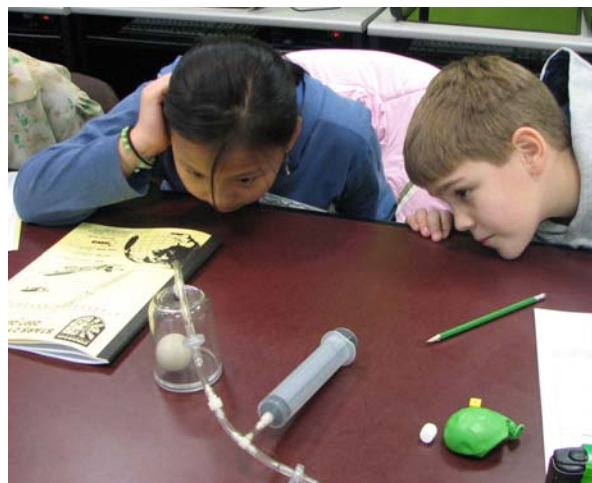
"Tiger" explores the flight controls of a glider and how they are explained using Newton's Laws.



"White Tiger" wonders why the object is falling slowly through the liquid.



Students are immersed in math and science concepts through hands on activities.



Students explore the changes matter goes through when placed in a vacuum.