

It is no surprise to us that there are amazing things happening every day at HA. In our science / STEM programs, we see our student's excitement as we continue to roll out Project Lead the Way (PLTW) across our school. PLTW is an amazing opportunity for our kids to work together to solve problems, plan, design, build, engineer, and test their work.

We would like to highlight some of the most recent projects and hope you are as excited as we are to be a part of this state-of-the-art science, technology, engineering and math program!

Project Lead the Way—Launch Curriculum Update:

Our 5K scientists are studying the **Human Body Unit**. They are examining major organs within the body and investigating how the structure of each is related to its function.

1st grade engineers began using **computer code** to create videos on their iPads. They have also been working on a project to **devise light and sound models** designed to communicate over long distances.

2nd graders are learning about **Our Changing Earth**. They are using Google maps to locate and label the continents, oceans, and Great Lakes. They are also learning about **erosion** as they prepare for their final project of preventing a landslide from destroying a neighborhood.



Our 3rd grade science classes have been working on the **Science of Flight**. Students have learned the 4 forces of flight: thrust, drag, lift, and weight. They experimented on the iPads to design their own gliders by choosing various wings, horizontal stabilizers, or fuselages. Then they worked in teams to build and test their own gliders.

The 4th graders have been exploring **potential and kinetic energy** with the pendulums that they built using Vex Kit pieces. They were able to discover that changing the height of the pendulum varied the amount of potential energy. They also ran a test to see if releasing a vehicle from different heights on a ramp affected how far it could travel.

In Fifth Grade, our teaching staff is in the process of robotics training, and plans to implement the PLTW program in the 2017-2018 school year.

Project Lead the Way—Gateway Curriculum Update:

Our 6th grade is focusing on the newly revised **PLTW Design & Modeling Unit**. Students use the design process to build an ankle foot orthosis and a therapeutic toy while using 3-D modeling software.

7th grade students are studying a **new Science of Technology Unit**, which includes students acting like a chemist & chemical engineer to make ice cream, glue, and clean up an oil spill. They are also investigating Nanotechnology by testing everyday nano-products.

In 8th grade, students just finished practicing the skills of a **forensic scientist** by calculating the time of death, autopsy simulation, and DNA gel electrophoresis for the **PLTW Medical Detectives Unit**.

