

BLAINE AIRPORT PROMOTION GROUP

Taking Your Ambitions Skyward

8891 Airport Road 2C, Blaine, MN 55449
rogerhansen49@gmail.com 763-786-3606

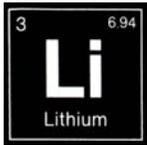
THE EDUCATION COORDINATOR
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TECHNOLOGY IS THE BUILDING BLOCK THAT SCIENCE, ENGINEERING, AND MATH IS LINKED TO. "THESE FIELDS ARE MADE COMPLETE BY THE TECHNOLOGY COMPONENT THAT PROVIDES A CREATIVE AND INNOVATIVE WAY TO PROBLEM SOLVE AND APPLY WHAT HAS BEEN LEARNED." Quote by K-12 Education Expert, Dr. Patricia Fiorillo



Fabrication of a form of metal takes many steps. Through *Science*, a metal alloy is developed that will be suitable to withstand the environment that the finished product will experience. *Engineering* is the discipline, art, skill and profession of acquiring and applying scientific, mathematical, economic, social, and practical knowledge in order to design and build the structure. *Mathematics* is a precise, rigorous principle or method of proving the integrity of the structure. *Technology* is the body of knowledge to extract, gather, and practice skills to achieve the desired results.

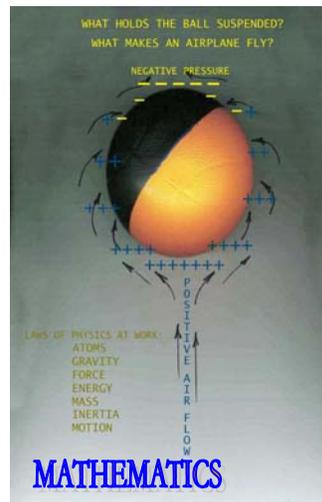


Development of a product sometimes takes a while. A discovery of *Petalite* ore was made in 1800. John August Arfwedson is credited with the discovery of *Lithium* in 1817 while analyzing petalite ore. The pure element of lithium was not isolated until 1821 showing it to be the lightest metal and the least dense solid element. Quantities of lithium were produced in 1855 through the electrolysis of lithium chloride. The discovery of this procedure led to commercial production of lithium, beginning in 1923.

The first major application of lithium became high temperature grease for aircraft engines and other similar uses during World War II. The United States became the primary producer of lithium in a period between the 1950's and 1980's. By 2000 lithium demand increased due to development of lithium powered equipment and several industries were launched as a result to meet the demands for new innovations world wide.

Usage of lithium in the United States production of aluminum is 6%, batteries 23%, ceramics and glass 31%, Lubricating grease 9%, air treatment 6%, continuous casting 4%, rubber and thermoplastics 4%, Pharmaceuticals 2%, and other products make up 15%.

How many products can be counted that have origins to discoveries of this lightest of all metals known to man? Optics, medicine, air purification, and mobile phones to name a few as new technologies are constantly being announced.



The Blaine Airport Promotion Group began a program in January 2011 designed to provide initiatives by the business owners located on the Blaine Airport to reach our community through educational means. With that goal in mind the group set in motion a plan to reach school administrators and teachers with a message that we were ready to support the *S.T.E.M.* curricula by providing on-the-airport tours and studies related to Aerospace.

Captain Shelly Supan of the Civil Air Patrol, Anoka County Composite Squadron, was already working to contact schools in the area to introduce the A.C.E. program designed for a curriculum K—5.

We invited school curriculum coordinators for tours of the airfield and participating businesses and introduced our intentions to provide a technology support for the schools class room studies in Aerospace.

James Mecklenburg, Project Lead the Way, Director attended one of our group meeting and gave a report on his activities in introducing the STEM program into the schools curriculum.

These are just a few of the programs that are introducing young students to Aerospace while teaching the basics of mathematics, engineering, and science.

On September 16, 2011 our group provided a display featuring materials from businesses that manufacture Aerospace equipment, or providers of services to the operations of the Blaine Airport.

There were several other stations set up where students could listen to presentations about a variety of subjects as well as participate in activities.

The event took place at the University Avenue Middle School officially named as an Aerospace school.

Airport Manager Joe Harris provided a truck with a snowplow as a center piece for the display. *Key Air, Cirrus, Twin City Aviation, Aviation Medical Minnesota, Minnesota Helicopter, Bolduc Aviation, American Wings, Life Link III, R.C Avionics, and Golden Wings* played a part in making this a most enjoyable event that provided hands on experience to over 600 young students.

We are looking forward to being a part of the ongoing projects that the school will be doing throughout the school year. One of the next projects will be weather related subject that will be conducted at the airport.

Check us out on the web.
www.aneairport.org



summer workshops and tours

