



# Technology

LEARNING CENTER, INC.

*Involve me and I will understand*

## TLC Executive Summary

America's educational system has seen a steady decline in math and science performance when compared to the educational systems of other nations. Averaging the results of tests by the US Department of Education, the students of the industrial countries of Asia consistently score the highest in math and science. By comparison, students from the US rank 23<sup>rd</sup> in science and 32<sup>nd</sup> in math. If we were to chart our performance on a report card, the U.S. would be lucky to squeak by with a "C".

As a result, our country is not producing the amount of engineers it once did. American industry is increasingly having to go abroad to find qualified engineers and technical staff. It is reasonable to conclude that this is contributing to our country's shrinking industrial base, higher unemployment rates and trade deficits.

Examining both our strengths and weaknesses in science education, a group of private sector engineers and entrepreneurs have mobilized to create an easily executed "in school" program to address the issue. The program, called Professor Know-How's Lab is offered free to the students of public and private schools. Professor Know-How's Lab compliments science curriculums and is seamlessly presented without disruption to a school's existing routines or schedules. It can easily accommodate students with a wide range of cognitive learning styles as well as those whose primary language is other than English.

Executed primarily by volunteers and funded by private contributions and public grants, the Technology Learning Center's mission is to produce the spark that will one day make America's educational system the epicenter of achievement in the areas of science and technology.

Setting our "community based" program in motion is a diverse group of talented professionals and retirees from all fields of engineering, science, technology, business and education. Well equipped with a vault of specially crafted teaching aids, our visiting classroom volunteers take on the role of Adjunct Professor Know-How. The Professor, part mad scientist, part detective is skilled at presenting science in a way that makes learning fun.

The Technology series is presented in Montessori fashion to groups of no more than 10 students at a time. The course is crafted as cascading modules and can be completed in as little as 10 hours. The teaching methods we employ are highly interactive and hands on. Through discovery and experimentation, abstract concepts are learned in an effortless, spontaneous manner.

Ideally suited for a mix of young people from the 6th, 7th & 8th grades, our lessons are carefully choreographed to spark young imaginations as they socially interact with each other. Appealing to touch and presented in such a way as to engage each of the five senses, every student finishes the series with a thorough understanding of electricity and how many of our modern day marvels work.

The natural disasters in Japan and the subsequent damage to its nuclear power facilities demand that we have a better understanding of energy. Electricity is the vehicle used to distribute and transform the energy that powers our modern world. Everything is electric. A fundamental understanding of electricity is especially critical if we are to discover new ways to both harness and conserve electrical energy. Young people, and more importantly their decisions to pursue careers in science and technology, will make achieving this goal an American reality.

Realistically, we understand that our one simple program will not solve the myriad of challenges facing our educational system. In many ways it will be a journey. Determined to make a difference, we readily appreciate that every journey begins with a first step. By encouraging citizens to become active participants in their local schools, the Technology Learning Center's ultimate goal is to provide a working model that will encourage the development of similar programs in other areas of education. That involvement, we feel, will immediately lead to greater student achievement with ensuing repercussions for the future prosperity of our nation. Empowering every citizen to be a philanthropist, the TLC program provides many ways for ordinary citizens to participate in this historic mission.



*"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has."* Margaret Mead