

EXECUTIVE SUMMARY

A research team at UCLA Laboratory of Neuro Imaging used high-performance computers to analyze brain images of children ages 3-15 years. Results showed that for children ages 3-6, the most rapid growth took place in the part of the brain that regulates mental alertness and organization while children ages 6-13 showed growth in the centers of the brain for language and mathematical thought (*Growth Patterns in the Developing Human Brain Detected Using Continuum-Mechanical Tensor Maps*, Nature, 2000). Clearly, introducing science and mathematical skills early gives children an advantage, and starting as early as age three, these skills will provide building blocks for a higher education.

It is the goal of AIS to see its students strongly develop these skills through a hands-on program, which uses building construction, programming, engineering and computer science. Unfortunately, due to lack of space and funding, AIS cannot dedicate a room and equipment to expand its curricula. Therefore, it has found a unique way to offer children the most current and up to date technology instruction through a program entitled *Tech Stars*, offered by the company *Computer Tots, Computer Explorers (CTCE)*.

The **Austin International School** wishes to advance its curriculum through a new ***Science and Technology Curriculum Advancement Program*** that will serve all students between ages three and ten. *Tech Stars* is a mobile program (and therefore works with the space provided, moving materials in and out of the facility) that integrates math, science, engineering, renewable energy and robotics into a school's curricula. It is able to provide these concepts to all AIS students at all grade levels—while improving math and science test scores—and uses the most updated equipment and technology from year to year.

Working closely with *Tech Stars* teachers to incorporate this program, AIS has set a very specific two-year timeline in the planning and execution of the integration, which will be accomplished by [REDACTED]

[REDACTED] Testing and evaluation of the program will also take place throughout each school year in order to determine the advancement of students' skills and the efficiency of how the program is administered.