



Curriculum & Instruction Report

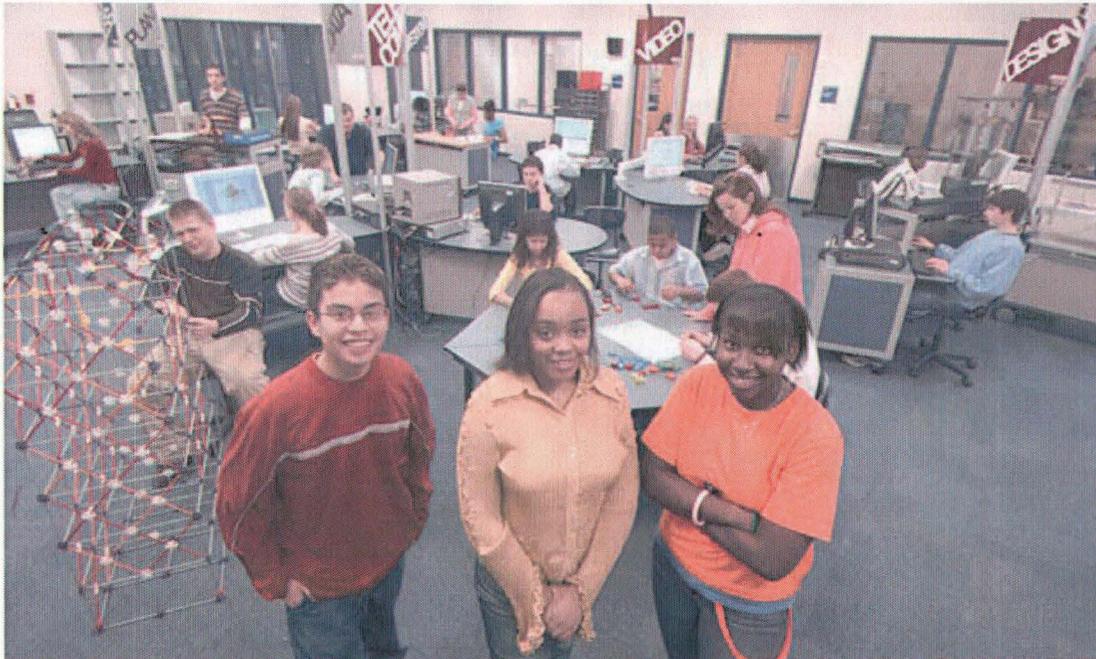
**V(a). PROPOSAL FOR STEM SMART LAB
ENVIRONMENTS**

*March 13, 2014 Board Meeting
Education Achievement Authority of Michigan*

**PROPOSAL
FOR STEM SMARTLAB™ LEARNING
ENVIRONMENTS FOR**

**Education Achievement Authority of Michigan
Detroit, Michigan**

FEBRUARY 6, 2014



“By providing a high-quality education we can hope to achieve a better world. If an engaging STEM curriculum is the pathway to that goal, then I am blessed to have a SmartLab as my means of transportation.” NASA Outstanding STEM Teacher 2011



Version 2

Contact Information

Creative Learning Systems

Creative Learning Systems designs and implements engaging STEM learning environments to build 21st century skills. Combining cutting-edge technology with standards-based curriculum, we help provide students of all ability levels with challenging and engaging learning opportunities. Students learn to use and apply technology. They learn to manage projects and problem solve. They communicate and collaborate. They build skills necessary to compete in our global economy.

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Introduction and Overview

Creative Learning Systems has successfully installed STEM learning environments in hundreds of schools nationwide. Our partners include public, charter and private schools serving a wide range of student populations and encompassing varied educational philosophies and program objectives. The common thread among Creative Learning Systems' clients is a desire to engage, motivate and empower learners to build 21st century skills and to prepare their students to compete in a global economy.

In the 2006 report, "**Are They Really Ready to Work**" employability skills dominate rankings of knowledge and skills expected to increase in importance over the next five years. Employers identified critical thinking /problem solving, information-technology application, teamwork/collaboration, creativity/innovation and diversity as the top five such skills.*

Our turnkey learning environments feature fully integrated systems of hardware, software, furnishings, online curriculum, educational kits, manipulatives, professional development, assessment tools, ongoing support, training, enhancement and upgrade services. Creative Learning Systems' hosted curriculum integrates technology education with core academic subjects using a project-based approach to learning. We empower both teachers and students to develop and explore areas of personal interest, while meeting state and national standards.

The environments we design help students learn about technology, but more importantly, students learn how to *use* technology. Therefore, as technology changes students can quickly and effortlessly adapt. In a Creative Learning Systems environment, technology also functions as a learning tool. Students learn critical problem-solving skills in a multidisciplinary environment. They have numerous opportunities to apply principles of math, science, language arts and other academic disciplines in engaging, relevant ways. As they create and present portfolios of their work, they develop communication skills vital to scholastic and professional success.

In an elementary school SmartLab, students develop foundational technology skills in mechanics and structures, robotics, circuitry, science and data acquisition, computer graphics, and publishing and multimedia. Students learn how to develop project objectives and document their learning in ePortfolios, daily journals and project presentations. The elementary SmartLab is designed to support rotational learning engagements in upper elementary grades and whole-class, teacher led activities for younger learners.

In a middle school SmartLab, students begin to explore a wider range of technology including professional-standard software applications. Middle school SmartLab curriculum explores the scientific principles behind each system of technology in more detail and encourages a greater understanding of academic connections. Projects become more open-ended and learners are encouraged to adapt and expand projects to fit their own interests and connect with academic content from their other classes. Expectations for ePortfolio documentation and presentations are higher and students begin to self-assess performance along with their facilitator.

In a high school SmartLab, students who have been through the middle school program are encouraged to explore specific areas of technology, such as digital media arts, robotics, or alternative and renewable energy in more depth. High school learners are often ready to engage in extended projects of their own design that utilize a broader variety of technology tools and bridging multiple academic subject areas.

The principles that guide the custom design of each Creative Learning Systems learning environment are based on leading-edge research into *how* people learn. Educational theories of constructivism, brain-based learning and multiple intelligences are combined with over 20 years of field testing, research, development and program refinement. The result is a powerful STEM learning environment that engages learners of all abilities and opens new doors to academic and personal success.

* The Conference Board, Corporate Voices for Working Families, Partnership for 21st Century Skills, and the Society for Human Resource Management, "Are They Really Ready to Work" Employers' Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce," www.21stcenturyskills.org/documents/FINAL_REPORT

A key element of Creative Learning Systems reputation as a reliable partner in education is our ongoing commitment to service and support. With each new learning environment, Creative Learning Systems provides extensive, on-site professional development and technical training. To protect the value of your investment, we provide ongoing technical support for the life of your SmartLab. Facilitators have numerous opportunities for further professional development as well as access to the advice and support of an active community of SmartLab facilitators in other schools. Creative Learning Systems has been at the forefront of learning technologies for over 20 years and, as an educational partner, you have access to ongoing consultative services from our team of experts. At Creative Learning Systems, we are fully committed to the long term success of your school, your staff, and your students. That's our promise.

Another important factor that sets us apart from other STEM education providers are the key distinctions between the SmartLab and modules-based programs. First, the SmartLab is designed for **personalized learning**, as a student-centered learning environment. Autonomy and self-direction are encouraged and rewarded. SmartLabs are designed and provisioned with a wide array of technology and learning resources to support learners with different interests and abilities. Modules-based programs guide learners through a more narrow set of learning activities predefined by the vendor.

SmartLab learning engagements are academically-oriented activities **designed to focus on the development of 21st century skills** - critical thinking, problem solving, collaboration, communication and project management. Learners explore science, math and engineering (STEM) through applied technology; also building connections to social studies, language arts and other academic subjects along the way. Modules-based programs approach technology as a limited set of vocational skills and the integration of multiple technology applications and/or other subjects is not as emphasized.

SmartLabs provide for **authentic assessment** of learning based on portfolios developed and presented by students to evidence project work and document learning. Modules-based programs rely on a computer-based management system to deliver pre and post tests to assess a narrowly-defined knowledge/skill set.

The SmartLab is a **fully-customized learning environment** designed specifically for each school in collaboration with educators, administrators and other school staff. The goal of the program; whether stand alone or used to enhance an existing curriculum, is to engage students and help develop 21st century skills. Modules-Based programs limit customization to the selection of available learning modules.

SmartLab professional development is provided through **onsite instruction by a CLS specialist** and all ongoing support is also provided directly by Creative Learning Systems. Schools are encouraged to include additional staff members in the initial training and orientation, at no added cost to help increase awareness and practice of the "student centered" learning approach throughout the school. Professional development for modules-based programs is typically specified as group instruction at a vendor location. Support is typically provided by area sales representatives.

SmartLabs are designed to provide resources and practices that can **support STEM education throughout an entire school system** - using the SmartLab as an interdisciplinary center of application. Modules-based programs are narrowly designed to support a specific vocationally oriented, technology education program.

For all of these reasons, we are proud to present this Proposal for STEM SmartLab programs to **Education Achievement Authority of Michigan**.

"Of all the investments we make in educational technology, the SmartLab has been the most effective in actually putting technology in the hands of our students."

*Dr. Velma Villegas, Superintendent
Southwest Independent School District TX*

Deliverables and Price

This section provides the details about the purchase price and lists the deliverables. More information about the deliverables can be found in the following sections.

Deliverables

The purchase price includes:

Design and Implementation

- SmartLab system design, consulting, and planning services; including specific facility requirements.
- Network consultative services and coordination with selected wiring contractor
- Setup, installation, testing and configuration of all furniture, hardware, equipment, computers, software, and printers to be used within the SmartLab.
- Coordination and installation of all school owned software within the SmartLab environment.
- Imaging of all SmartLab client workstations and servers for easy recovery.

Deliverables

- **Five or Six Island SmartLabs™ for up to 30 learners**
- All work/learn stations, Power Pylons™, and Ceiling Power Panels
- Windows based personal computers
- Creative Learning Systems Learning Launcher Curriculum with supportive kits and resources for 30 - 36 student course offerings
- Creative Learning Systems ePortfolio Assessment Systems
- All equipment, collaboration clusters, kits, apparatus, libraries, curriculum and software described in the following sections. (See Attachment A for specific list of deliverables)

Professional Development and Support

- **Four days of onsite** group based professional development and technical training with one additional day for each campus
- Advanced Facilitator Development Conference Tuition Slots for each campus
- Technical and Pedagogical support available via toll-free 800 number
- Curriculum and Support Agreement (CSA) \$5000 per year:
 - ✓ Access to hosted Learning Launcher Curriculum including all available updates and additions for each campus
 - ✓ Access to hosted Facilitator Resources including all available updates and additions for each campus
 - ✓ Up to four days additional onsite professional development in the event of facilitator turnover for each campus
 - ✓ Unlimited telephone and online technical & pedagogical support for each campus
 - ✓ Discounted rate for onsite technical support and/or additional professional development for each campus
 - ✓ Discounted tuition for future Advanced Facilitator Development Conference (AFDC) for each campus
 - ✓ Up to \$1000 per year in enhancement and replacement parts from the SmartLab catalog for each campus

Additional Education Achievement Authority of Michigan SmartLab elements outlined within include:

- Facilitation Zone – every campus
- Custom Configured Dell server – every campus
- SmartLab Media Systems/Integration Services – every campus
- Replication Platform™ – every campus
- Video Production Workstations™ – every campus
- Advanced Exploration Collection – every campus
- Presentation/Collaboration Collection with a LCD projector – most campuses
- Computer Control Monitoring System with a seventy inch LED display - every campus
- Construction Set Storage System with Replacement Construction Sets for Each Class Period – every campus
- LCD Monitor Arms – every campus

- Elementary Layer – Bethune Only
- Mobile Video Console and Chroma Key Studio - Pershing High School Only
- Professional Development Description

Purchase Price

The total purchase price for the Creative Learning SmartLabs described herein is a firm quotation valid for sixty (60) calendar days. All amounts are (US) dollars and the purchase price is F.O.B. destination.

School	SmartLab Subtotal	CLS Sponsorship (Furniture)	SmartLab Total
Bethune Elementary-Middle School	\$ 293,198.00	\$ 47,095.00	\$ 246,103.00
Central Collegiate Academy	\$ 280,223.00	\$ 44,600.00	\$ 235,623.00
Denby High School	\$ 281,539.00	\$ 44,997.00	\$ 236,542.00
Ford High School	\$ 283,760.00	\$ 45,396.00	\$ 238,364.00
Mumford High School	\$ 293,080.00	\$ 46,290.00	\$ 246,790.00
Pershing High School (Includes MVC)	\$ 369,227.00	\$ 46,577.00	\$ 322,650.00
Southeastern Technology High School	\$ 278,261.00	\$ 45,145.00	\$ 233,116.00
Totals	\$ 2,079,288.00	\$ 320,100.00	\$ 1,759,188.00

This quotation replaces all previous quotations sent prior to 2/6/2014.

Important to Note: The price for the Curriculum and Support Agreement is \$5,000 annually and runs July 1st to June 30th. This five year agreement may be paid in full at the time of the initial SmartLab purchase or billed annually. The price per year is locked-in once the agreement is signed.

Exclusions

The Education Achievement Authority of Michigan SmartLabs, as proposed, are a complete full-featured learning environment. The only exclusions are seating, facility improvements, removal of trash and debris, client computer hardware, and **network virus protection**. The customer must provide these items.

Detailed Exclusions:

- Facility Improvements – Electrical and data network services should be installed as per the electrical and data layers of the plan view drawing (final electrical and data layers to be delivered with the final proposal). Optional facility improvements include anti-static carpeting, dropped acoustical ceiling, marker and tack boards, paint, etc. Creative Learning Systems is prides itself on working with district/school administrators and school district architects on final room preparation and provisioning.
- Removal of Trash and Debris – The SmartLab environment creates a large amount of trash and debris during the installation process. It is recommended that the district/school provide a 20 yard open top dumpster or equivalent for disposal of all packing materials associated with the SmartLab. Creative Learning Systems is committed to participating in your LEED (Leadership in Energy and Environmental Design) project/certification, and will follow each customer’s instruction during the implementation process.
- Customer Supplied Software –Customer supplied software is specified in Attachment B.

Prior to the arrival of the CLS installation team, CLS requires notification that the facility has been “released” by the contractor or district officials and is ready for the SmartLab installation. Please phone Shelley Nault at 1-800-458-2880, extension 723, no later than twenty-one (21) days before the release date.