smartlab HQ

PRELIMINARY ESTIMATE

FOR: The Main Street Academy
ATLANTA, GA
Mar 19, 2021

ADMINISTRATIVE SUMMARY

A SmartLab HQ is a fully-integrated STEAM learning environment where everything—from the furniture to the curriculum and assessment—works together to support hands-on, minds-on learning.

At Creative Learning Systems, we design learning programs where personalized learning and intrinsic motivation engage students of all ages, interests, and abilities.

Every element in a SmartLab program has been thoroughly tested and evaluated for reliability and applicability to classroom learning.

By lending our expertise in designing next-generation STEAM programs, you can focus on what you do best: educating your students.

Learning is Different Here

In a world where science, technology, engineering, and mathematics are critical to every job, field of study, career, and even home life, it's essential that every learner has a strong foundation in STEAM, not just those who are naturally proficient in math and science.

SmartLab programs engage all learners in a hands-on, project-based learning approach in which STEAM disciplines are seamlessly integrated. In a SmartLab HQ, learning is highly personalized and empowers students to shape their learning to meet their individual interests, abilities, and learning styles.

Our proprietary learning approach is a five-phase cycle: explore, plan, do, reflect, and share. This philosophy meets students where they are and helps them develop the necessary skills to ask questions and find answers.

College and career-success also demand a robust set of 21st-century skills, such as problem-solving, critical thinking, communication, collaboration, creativity, and effective application of technology.

A SmartLab HQ provides a complete STEAM program that engages students in personalized learning that prepares them for academic and career success.

What's the Next Step?

We've prepared this estimate to help you evaluate whether a SmartLab HQ is right for your school and identify funding requirements.

We can't wait to customize a SmartLab HQ that meets your school's goals. When you're ready we'll help you develop a plan specifically for your school.

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FROM OUR PARTNERS

In a SmartLab, students own their education and take their learning to uncharted territory. Here, they grow real-life skills in a real-world environment.

Derek Seifried
SmartLab Facilitator
Prairie View Middle School

Join our more than 500 partner schools and districts that are committed to engaging every student, every day!

Chicago Public Schools

DETROIT PUBLIC SCHOOLS COMMUNITY DISTRICT

Friendship Public Charter School
GRADES PRE-K3 TO 12

iLEAD
Free to Think. Inspired to Lead.
ileadschools.org

JEFFCO PUBLIC SCHOOLS

Jenks Public Schools

Lake Oswego School District

ndCDE North Dakota CENTER FOR DISTANCE EDUCATION

YOUR SMARTLAB HQ INCLUDES:

Service

Before implementation

- Personalized consultation, planning, and design services
- Resources and tools for fundraising

During implementation

- Project planning and coordination between school/district IT, facilities staff, and installation contractors
- Network and server integration
- Computer configuration and software installation
- Shipping and installation of all SmartLab Deliverables (see Attachment A)
- Four days of personalized onsite training for your SmartLab Facilitator and other teaching staff

After implementation

- One year of ongoing instructional coaching, consultation, and professional development
- Ever-growing library of online teacher and classroom resources
- Technical and pedagogical support
- One-year comprehensive warranty for all equipment, materials, and software
- A range of Curriculum and Support options to ensure the success of your SmartLab for years to come

Curriculum

- 600+ fully-articulated online curriculum titles for K–12 learning engagements
- ePortfolio development tools and templates for authentic assessments
- Fully-vetted construction sets, software, electronic, scientific, media, and classroom equipment that complement and enhance the curriculum

Infrastructure

- ADA-compliant, collaboration-driven furniture designed for dynamic learning (student and facilitator workstations, cabinets, kit storage systems, and flexible monitor arms)
- Interactive classroom display
- Computer management and control systems
- Classroom server

OPTIONAL ENHANCEMENTS

- Primary Layer includes resources designed to engage K–2 learners with developmentally appropriate activities
- Advanced Exploration Collections that ensure curiosity isn't limited by grade level or ability
- Padcaster Collection provides a portable video broadcasting solution that allows students to stream content from anywhere with a wifi connection
- CNC Milling Collection is designed to allow students to cut, engrave, and design three-dimensional products
- Laser Engraver Collection allows students to cut, score, and engrave a variety of materials

SMARTLAB LEARNING

Every SmartLab program is designed with the student experience at its core. Likewise, we recognize and celebrate the importance of impactful educators on successful learning.

SmartLab Learning focuses on supporting students and educators with the tools and resources necessary to engage in meaningful and authentic learning experiences in a supportive learning community.

In bringing a SmartLab HQ to your school, you are partnering with an organization with decades of experience developing impactful learning programs to schools across the United States.

The following sections provide details about the scope of the SmartLab HQ learning program that is proposed for your school, as well as information regarding the deliverables and services that this program includes.

STANDARDS ALIGNMENT AND ASSESSMENT

As students complete SmartLab projects, they are naturally exposed to the content and skills outlined in national and state standards. Our focus on the student experience while addressing standards is coupled with customizable rubrics and other resources to support authentic assessment in the SmartLab HQ.

Students and facilitators can easily identify and document the standards addressed with each learning engagement using our interactive database included with our curricular resources.

Standards alignments include:

- Common Core College and Career Readiness Anchor Standards
- Common Core State Standards (Math, Language Arts, and Science)
- Next Generation Science Standards (NGSS)
- ISTE Standards for Students
- CSTA K-12 Computer Science Standards
- ITEEA Standards for Technological Literacy

Throughout each project, students document their work using project journals and portfolios. This provides them with opportunities to regularly assess their own work as well as perform peer evaluations to improve together.

Students also regularly share their work through project presentations to develop effective communication skills. As they prepare each project presentation, they collaborate with others to reflect on and share their own learning journeys.

During initial training and as part of the first year of instructional coaching, we will support your Facilitator in customizing the portfolio and journal templates that we provide to focus on the specific skills and content that matter most for your program.

grades

K-2

Optional Primary Layer

The Primary Layer of the SmartLab HQ program pairs age-appropriate curriculum with kits and equipment that have been chosen to meet the needs of the youngest SmartLab learners.

The Primary Layer includes kits, equipment, and software programs to support full-class activities for students working in pairs. The activities are designed to engage early readers with graphical directions while supporting their skill development.

With the kits included in the Primary Layer, younger students can work in pairs for whole-class activities to develop the skills required for the project cycle rotations that form the foundation of SmartLab learning at the Elementary level (grades 3-5).

For Primary SmartLab activities, facilitators choose engagements from a menu and guide the students through challenges that prepare them for future SmartLab learning. The same learning process that takes place in the elementary and secondary labs is mirrored in the Activity Cards that form the foundation of the Primary SmartLab curriculum.

Key Learning Objectives for Grades K-2

Students explore basic circuitry concepts as they build complete circuits. As they solve circuitry-based challenges, they describe how electricity flows to make things work.

Students create digital illustrations and animations using a range of software programs to share important information.

Students learn to write and edit code to control robots as they program vehicles and each other to accomplish objectives and solve challenges.

Students are introduced to computer programming with a range of hands-on and computer-based coding activities. With each activity, they solve problems using block and graphical coding languages.

Students combine 2D shapes to create 3D designs using physical materials and computer programs.

Students build simple machines to help do work and model structures in the world around them with a range of materials.

Students perform experiments while collecting data using sensors. They describe what they observe in their experiments and in the data they collect.

Students explore different sources of renewable energy, including solar and wind power.

grades

3-5

Elementary Learning

In the elementary grades, students collaborate with a partner on project-based learning activities, and each furniture grouping accommodates three pairs of learners who are assigned the same technology. After completing each project cycle, students move to the next topic of study and technology.

Elementary learners use two types of Learning Launchers: Liftoff and Express Challenges.

Liftoff Challenges are designed to be project engagements for 3–5 class periods. Typically, students rotate through a sequence of technology engagements with teams of students working simultaneously on similar Liftoff Challenges.

Express Challenges are shorter project engagements for the full spectrum of elementary grades. These challenges can be conducted as whole class activities and are appropriate for lower grades or when school schedules make it difficult to complete longer project engagements.

Liftoff Challenges and Express Challenges provide engaging learning opportunities for elementary age learners and offer schools flexible scheduling options. They provide foundational experiences in project-based learning and provide elementary learners with early experiences in project-planning, communication, and collaboration. The group work format also provides students with a pool of experts from which to draw, and learners are encouraged to collaborate with peers when they have questions.

Key Learning Objectives for Grades 3-5

Students explore electrical systems, including short circuits, series and parallel circuits, conductors and insulators, and integrated circuits utilizing functional components.

Students capture and produce content in various formats including digital, print, and audio. They use word processing programs and presentation software to document projects and share their learning.

Students learn to program robots to solve challenges using block coding and algorithms.

Students use block and script coding to create animations and simple games that utilize functions, loops, and variables.

Students explore different software programs to design 3D objects and edit photos.

Students learn about the engineering design process, 3D and functional shapes, and iterations in design. They engage in building to accomplish a task or solve a problem.

Students learn about the scientific method as they perform experiments while collecting data using sensors. They use tables and graphs to draw conclusions from their data and present their findings.

Students describe what renewable energy is and how it can be used to replace non-renewable sources.

grades

6-8

Middle School Learning

The SmartLab HQ program designed to serve middle school learners provides a broad range of experiences for students in grades 6-8. As students work in pairs for each project, they practice effective collaboration and communication skills to work toward a shared objective.

Each pair of students in a middle school SmartLab HQ works on a different project following a sequence of engagements that can be modified to meet the objectives of your school. As students cycle through each project, they gain valuable skills and familiarity with content that they can apply to each new experience.

In a typical SmartLab HQ, each pair of students is seated near two other pairs of students, making expanded collaboration or peer help readily available. As your students and facilitators become more comfortable with the tools and processes in the SmartLab HQ, they are encouraged to develop new and exciting projects using the available resources.

Our leveled Learning Launcher resources provide students with entry points to match the experience they may already have with the SmartLab tools and technology. The different levels also give students the opportunity to challenge themselves by exploring more challenging projects and concepts.

Key Learning Objectives for Grades 6-8

Students apply what they learn about electricity to build and program digital circuits using microcontrollers and electronic components.

Students capture and produce content in various formats including digital, print, and audio. They use word processing programs and presentation software to document projects and share their learning.

Students design, program, and debug robots to solve complex problems efficiently.

Students use a variety of programming languages to code animations, games, apps, and circuits.

Students apply different software programs to design 3D objects and edit photos to share their own ideas.

Students apply the engineering design process, to iteratively design structures and mechanisms to increase the strength, performance or efficiency of their designs.

Students apply the scientific method to perform experiments that involve collecting data using sensors. They use tables and graphs to represent their data and analyze their findings to share what they observe.

Students explain how renewable energy is used to power machines and how to use energy more efficiently.

WHAT WE PROVIDE

Everything that we provide—from furniture and technology to kits, equipment, and accessories—has been carefully curated to provide the best learning experience possible for your students. The information below outlines the range of products that are included in a SmartLab HQ..

LEARNING KITS AND EQUIPMENT

All of the kits, equipment, and accessories provided in your SmartLab HQ support students as they complete and document each project.

To enable the breadth and depth of experience that our program offers, we provide a range of learning kits, including robotics systems, media equipment, scientific sensors, electronics building materials, and more.

We also provide kits to support multiple classes working on the same materials so students can spend their time building and exploring instead of taking their projects apart for the next group. Some kits require consumables, so we provide accessory collection to ensure students have exactly what they need.

COMPUTERS AND SOFTWARE

Learners make use of a range of computer applications and platforms for their work in a SmartLab HQ. Our learning program guides students to use each application effectively for each project.

In a typical SmartLab HQ, each pair of students shares a computer to document their learning, write computer programs, create digital art, or engage in other projects.

The specific computers for your SmartLab HQ may vary to match the goals or platform preference of your school.

FURNITURE AND FIXTURES

The furniture included in your SmartLab HQ is designed to provide dedicated workstations for each pair of students working on a project. Our student workstations are also grouped together to provide each pair of students with two other pairs nearby for additional collaboration.

Each SmartLab HQ also includes a desk and storage for the SmartLab Facilitator, which provides a comfortable workspace for the educator(s) at the heart of the SmartLab learning program.

We include plenty of storage solutions for the kits, equipment, and other materials included in your SmartLab HQ, including locking storage for high-value items.

The specific furniture layout is customized to your space. Our experienced design team works closely with your facilities staff to plan your SmartLab HQ and provide detailed data and electrical requirements for a smooth installation process.

ONE-YEAR COMPREHENSIVE WARRANTY

All of the items provided by Creative Learning Systems for your SmartLab HQ are covered by a 1-year comprehensive warranty.

SUPPORTING YOUR SUCCESS

Partnering with us to bring a SmartLab program to your school is a valuable investment in your students, faculty, and community. The services we provide extend far beyond initial consultation and implementation. Our goal is the ongoing success of your SmartLab HQ to provide meaningful learning for years to come.

PROFESSIONAL DEVELOPMENT

Comprehensive professional development is a critical element of the continuing success of your SmartLab program. During the first year, you'll receive ongoing SmartLab professional development that includes initial onsite training, a year of instructional coaching, and registration to the annual SmartLab Conference. After completing our PD sequence, your Facilitator will receive the SmartLab Facilitator Certification from Creative Learning Systems.

Onsite Professional Development

The purchase of a SmartLab includes onsite training with the designated Facilitator(s). This training program allows participants to experience SmartLab Learning firsthand, familiarizing them with the pedagogical approach and resources available to implement student-directed learning.

Additional staff members are encouraged to participate in the onsite training to see how the SmartLab will support learning in their school.

Instructional Coaching

After initial training, Facilitators continue to receive support from an experienced instructional coach for one school year. Each month, the Facilitator and coach communicate to discuss successes, challenges, and goals for the SmartLab. Throughout the year, the Facilitator will participate in coaching cycles that incorporate video observations and goal setting. SmartLab Learning is monitored using a rubric that emphasizes the key aspects of successful facilitation.

SmartLab Conference

Facilitators can further their skills by attending the annual SmartLab Conference. The conference provides opportunities for Facilitators to network, share ideas, and gain exposure to new technologies and practices. Conference registration for one Facilitator is included in the initial SmartLab purchase.

ONGOING SUPPORT

We are committed to the long-term success of your SmartLab HQ.

In addition to the first year of comprehensive technical and pedagogical support included in your initial purchase, we offer a choice of Curriculum and Support Agreement plans to protect your SmartLab investment for years to come.

All Agreements provide school-wide access to online curriculum and classroom resources including new curriculum and updates as well as continued access to technical and pedagogical support via phone, email, and remote assistance.

PRELIMINARY ESTIMATE

Description	*QTY*	*Price*
24 Learner SmartLab for K-8	1	$170,000.00
24 Learner Primary Layer for grades K-2	1	$11,700.00
SmartLab Computers (Dell All-in-One PC)	13	$21,086.00
Padcaster Collection	1	$3,810.00
	SmartLab Total	**$206,596.00**

Curriculum and Support Agreement Options (choose one)	*Price*
1-year Plus Plan (invoiced annually)	$4,875.00
5-year prepaid Plus Plan (5th year free)	$19,500.00

Items not included (Customer-supplied)

	Estimated Cost
• Student and Facilitator Chairs	$ 7,995
• Room Readiness (as needed)	
• Network Virus Protection	

Contact

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Creative Learning Systems offers a secure payment plan that allows you to spread payments over multiple budget years. Additional information on this program is available upon request.

Note: This proposal is based on the Creative Learning Systems SmartLab programs and pricing policy at the time of this writing, is valid for 60 days, and may change to reflect any updated policies.

SMARTLAB ENHANCEMENTS

PRIMARY LAYER

The Primary Layer (K–2) is a set of curriculum paired with kits and equipment that have been chosen to meet the needs of your youngest SmartLab learners. The Primary Layer is equipped with enough provisioning to give each pair of learners access to kits, equipment, or software programs. The activities are age appropriate and require little to no reading or technology skills.

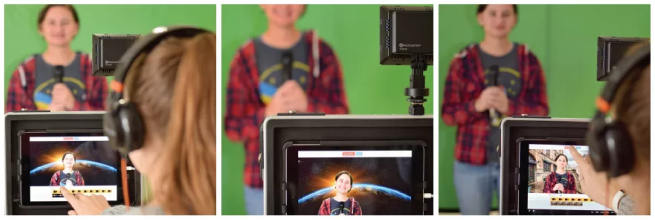
SmartLab Facilitators choose activities from a menu and guide the students through individual challenges and the documentation of their learning by using Activity Cards.

ADVANCED EXPLORATION COLLECTION

The Advanced Exploration Collection (AEC) is comprised of additional learning engagements designed to challenge students and bridge the transition from one grade level to the next. The AEC contains kits, software, and equipment that allow students to engage in higher-level curriculum.

PNEUMATICS COLLECTION

With the Pneumatics Collection, students use air to build complicated circuits and engineer solutions to real-world problems. The Collection includes everything your students need to learn about pneumatics, including an air compressor, hoses, pistons, valves, and electronics.

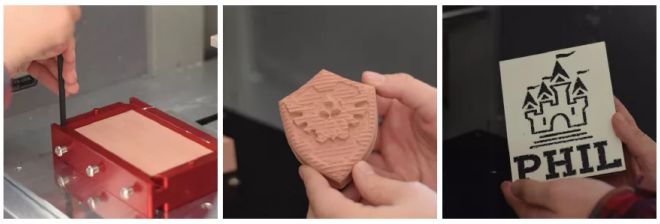


PADCASTER COLLECTION

The Padcaster Collection is a truly mobile solution to providing students an opportunity to film, edit, and share live andproduced video content. This iPad-based video broadcasting system includes includes everything that your students will need for streaming content on site or in studio.

LASER ENGRAVING COLLECTION

The Laser Engraver Collection gives students the tools to design and create beautiful artwork, build functional mechanisms, and personalize existing products. The collection includes an advanced filtration system, so that you can use the laser engraver in your SmartLab without the risk of harmful fumes.



CNC MILLING COLLECTION

The CNC Milling Collection includes tools, resources, and materials needed to cut, engrave, and design three-dimensional products. Students will be able to program double-sided milling while also adding finishing touches to their creations.